
UNIT 1 NATURE AND SCOPE OF ACCOUNTING

Structure

- 1.0 Objectives
- 1.1 Introduction
- 1.2 Need for Accounting
- 1.3 Objectives of Accounting
- 1.4 Definition and Scope of Accounting
- 1.5 Book-Keeping, Accounting and Accountancy
- 1.6 Users of Financial Accounting Information
- 1.7 Accounting as an Information System
- 1.8 Branches of Accounting
- 1.9 Advantages of Accounting
- 1.10 Limitations of Accounting
- 1.11 Bases of Accounting
 - 1.11.1 Cash Basis of Accounting
 - 1.11.2 Accrual Basis of Accounting
- 1.12 Qualitative Characteristics of Accounting Information
- 1.13 Functions of Accounting
- 1.14 Let Us Sum Up
- 1.15 Key Words
- 1.16 Some Useful Books
- 1.17 Answers to Check Your Progress
- 1.18 Terminal Questions

1.0 OBJECTIVES

After studying this unit, you should be able to:

- explain the need for accounting;
- identify the objectives of accounting;
- describe accounting as an information system;
- outline the scope and bases of accounting;
- distinguish between book-keeping, accounting and accountancy;
- identify the parties interested in accounting information;
- describe the functions and important branches of accounting;
- describe the advantages and limitations of accounting; and
- state the qualitative characteristics of accounting.

1.1 INTRODUCTION

In this unit, we shall discuss the functions, branches, advantages, limitations, and bases for accounting. In this unit, we also intend to elaborate on the need for accounting and then discuss the nature, scope and importance of accounting.

1.2 NEED FOR ACCOUNTING

Let us elaborate on need for accounting. Suppose you are given ten rupees to purchase vegetables and asked to account for the amount. You have purchased the vegetables— 1 kg of tomatoes for Rs. 4, 1 kg of potatoes for Rs. 3, and 1 kg of brinjals for Rs. 2. The total amount spent is Rs. 9 and the balance of amount with you is Re 1. Thus, you have rendered the account for Rs. 10. This is one time affair. Therefore, you could remember what you have spent.

Suppose, you are given Rs. 2,000 and asked to manage the home for a month and render the account for the money at the end of the month. You will be purchasing groceries, milk, vegetables, paying for electricity, school/college fees, etc. You will be spending almost everyday. In that case, is it possible to remember all the payments you are making everyday and render account at the end of the month? No, it is not possible to remember, especially when the number of payments is more. Not only that, it is not even advisable to depend on memory. Therefore, it is better to write down (or record) whatever payments you have made. Further, it is advisable to obtain receipts or bills for the payments you have made, so that you can render the account, beyond doubt.

The above example is a simple one, where you have one receipt of money i.e., Rs. 2,000 and a number of payments. But the case of business is different. In business, you may have to purchase and sell hundreds and thousands of times over a period of time. You will have a number of receipts and a number of payments (known as transactions). Will it be possible for you to remember hundreds and thousands of transactions which have taken place in your business, that too over a period of time, say a year? It is not humanly possible to remember all transactions which have taken place in business over a period of time. Even if you remember all the transactions, you will find it impossible to calculate the net effect of all such transactions i.e., profit. It, therefore, becomes necessary to record all the transactions that have taken place in business.

As the size of the business grows, it becomes necessary to employ people to assist the businessman. In such cases, theft of goods or cash is possible or all the sale proceeds may not be put into the cash box. Hence, it becomes necessary to maintain accounting records for the purpose of control, especially when outsiders are employed. It can, thus, be seen that there is need for proper accounting records even in case of a sole proprietorship concern. It is all the more important in the case of other forms of business organisation.

In case of a partnership firm, all the partners may or may not be actively participating in the day-to-day management of the business. It is, therefore, necessary to record all the transactions in order to satisfy all the partners. In case of a company, it is not possible for the owners (shareholders) who are too large in number to take part in the day-to-day management of the company. Generally, the management of the company is entrusted to paid managers. Hence, there is a need for recording all transactions.

Information about the business is required for both internal and external use. For example, the management needs a lot of information (for their internal use) for planning, controlling and evaluating the operations of the business. Information is also needed by some outsiders, banks, creditors, etc. For example, it is required for filing sales tax, income tax, and other tax returns with appropriate tax authorities. When a firm approaches the bank for loan or the creditors for supply of goods on credit, the bank or creditors like to know the firm's financial position (whether it is financially sound or not) and its profit earning capacity. The question is how to obtain all such information. A systematic accounting record is the only answer.

Accounting is necessary in not only business organisations, but also 'non-business' organisations like schools, colleges, hospitals, libraries, etc.

1.3 OBJECTIVES OF ACCOUNTING

From the above discussion, the objectives of accounting can be stated as follows:

- i) **To keep systematic records:** Accounting is done to keep a systematic record of financial transactions, like purchase of goods, sale of goods, cash receipts and cash payments. Systematic record of various assets and liabilities of the business is also to be maintained.
- ii) **To ascertain the net effect of the business operations i.e., profit or loss of business:** We know that the primary objective of business is to make profit and the businessman is very much interested in knowing the same. A proper record of income and expenses facilitates the preparation of the profit and loss account (income statement). The profit and loss account reveals the profit earned or loss incurred by the business firm during a particular period.
- iii) **To ascertain the financial position of the business:** The businessman is not only interested in knowing the operating results, but also interested in knowing the financial position of his business i.e., where it stands. In other words, he wants to know when the business owes to others and what it owns and what happened to his capital – whether the capital increased or decreased or remained constant. A systematic record of various assets and liabilities facilitates the preparation of a statement known as 'balance sheet' (position statement) which answers these questions.
- iv) **To provide accounting information to interested parties:** Apart from the owners, there are various other parties who are interested in knowing about the business firm, such as the management, the bank, the creditors, the tax authorities, etc. For this purpose, the accounting system has to furnish the required information.

Check Your Progress A

1. Give five points in support of the need for accounting.

.....

.....

.....

.....

2. State the main objectives of accounting.

.....
.....
.....

3. What is profit?

.....
.....
.....

4. What do you understand by 'Financial Position'?

.....
.....
.....

1.4 DEFINITION AND SCOPE OF ACCOUNTING

Accounting has been defined in different ways by different authorities on the subject. Accounting is a comprehensive discipline and it is difficult to explain satisfactorily through any single definition. However, two definitions are given below. This should help you to understand the nature and scope of accounting.

The American Accounting Association defines Accounting as the process of identifying, measuring and communicating economic information to permit informed judgments and decisions by users of the information. This definition stresses three aspects viz., identifying, measuring and communicating economic information.

In the words of the Committee on Terminology appointed by the American Institute of Certified Public Accountants, "Accounting is the art of recording, classifying and summarizing in a significant manner and in terms of money, transactions and events which are, in part at least of financial character and interpreting the results thereof". This is a popular definition of accounting and it outlines the nature and scope of accounting activity.

A business is generally started with proprietor's funds i.e., capital. The proprietor may also acquire additional funds from outsiders like banks and creditors. These funds are utilised to acquire the assets needed for business and also to carry out other business activities. In the process many transactions and events take place. The accountant has to identify all such transactions and events, measure them in terms of money, and record them in appropriate books of account. Then, he has to classify them under separate heads of accounts, summarise periodically in the form of Profit and Loss Account and Balance Sheet; and analyse, interpret and communicate the results thereof to the interested parties. Accounting can thus be broadly defined as follows;

Accounting is the process of identifying, measuring, recording, classifying, summarising, analysing, interpreting, and communicating the financial transactions and events in monetary terms.

The above definitions clearly bring out the scope of accounting. This can now be outlined as follows:

1. Accounting is concerned with financial transactions and events which bring about a change in the resources (or wealth) position of the business firm. Such transactions have to be **identified** first, as and when they occur. It is not difficult because, there will be proof in the form of a bill or receipt (called vouchers). With the help of these bills and receipts, identification of a transaction is easy. For example, when you purchase something you get a bill, when you make payment, you get a receipt.
2. These transactions are to be **measured** or expressed in terms of money, if not done already. Generally, this problem will not arise, because the statement of proof expresses the transaction in terms of money. For example, if ten books are purchased at the rate of Rs. 20 each, then the bill is prepared for Rs. 200. But, if an event cannot be expressed in monetary terms, it will not come under the scope of accounting.
3. The transactions which are identified and measured are to be recorded in a book called journal or in one of its sub-divisions.
4. The recorded transactions are to be **classified** with a view to group transactions of similar nature at one place. The work of classification is done in a separate book called ledger. In the ledger, a separate account is opened for each item so that all transactions relating to it can be brought to one place. For example, all payments of salaries are brought to salaries account.
5. The recording and classification of many transactions will result in a mass of financial data. It is, therefore, necessary to **summarise** such data periodically (at least once a year), in a significant and meaningful form. The summarisation is done in the form of profit and loss account which reveals the profit made or loss incurred, and the balance sheet which reveals the financial position.
6. The summary results will have to be **analysed**, interpreted (critically explained) and communicated to interested parties. Accounting information is generally communicated in the form of a 'report'. Big organisations generally present printed reports, called published accounts.

1.5 BOOK-KEEPING, ACCOUNTING AND ACCOUNTANCY

Very often you will come across terms like bookkeeping, accounting, and accountancy in the literature on accounting. We propose to explain them in the following paragraphs:

You know Accounting involves a series of activities, as listed out in the scope of accounting. These activities are; (1) identifying, (2) measuring, (3) recording, (4) classifying, (5) summarising, (6) analysing, (7) interpreting, and (8) communicating, the financial transactions and events. –

Book-keeping is a narrow term, which means record keeping or maintaining books of account. It only covers the first four activities (1 to 4 above) of accounting.

The term 'Accountancy' refers to a systematised knowledge of accounting and is regarded as an academic subject like economics; statistics, chemistry, etc. It explains 'why to do' of various aspects of accounting. In other words, when accounting refers to the actual process of preparing and presenting the accounts, Accountancy tells us why and how to prepare the books of account and how to summarise the accounting information and communicate it to the interested parties. Thus Accountancy is a science, a body of systematised knowledge, whereas Accounting is the art of putting such knowledge into practice.

In general usage, however, Accountancy and Accounting are used as synonyms (meaning the same thing). But, of late, the term accounting is becoming more and more popular.

Check Your Progress B

1. Define accounting.

.....
.....
.....

2. What do you mean by book-keeping?

.....
.....
.....

3. What is accountancy?

.....
.....
.....

4. Accounting involves a series of activities. List them.

.....
.....
.....

1.6 USERS OF FINANCIAL ACCOUNTING INFORMATION

You have learnt that many groups of people are interested in accounting information which may help them:

- i) to understand the present position of the enterprise
- ii) to compare its present performance with that of its past years
- iii) to compare its present performance with that of similar enterprises.

Now, let us see who such parties are and how accounting information is useful to various parties.

Owners: Owners contribute capital and assume the risk of business. Naturally, they are interested to know the amount of profit earned by the business and so also its financial position. If however, the management of the business is entrusted to paid managers, the owners also use the accounting information to evaluate the performance of the managers.

Managers: Accounting information, supplemented by other information, is of immense use to managers. It helps them to plan, control and evaluate the operations of the business. They also need such information for various decision-making.

Lenders : The funds are provided by the owners initially, but if the business requires more funds they are provided by banks and other lenders of money. Before they lend money, they would like to know the solvency (i.e., capacity to repay debts) of the enterprise, so as to satisfy themselves that their money will be safe and that they can expect repayment on time.

Creditors: Those who supply goods and services on credit are called creditors. Like lenders, they too want to know about solvency of the enterprise, so as to decide whether credit can be granted or not.

Prospective investors: A person who wants to become a partner in a partnership concern or a person who wants to become a shareholder of a company, would like to know how safe and rewarding the proposed investment would be.

Tax authorities: Tax authorities of the Government are interested in the financial statements so as to assess the tax liability of the enterprise.

Employees: The employees of the enterprise are also interested in knowing the state of affairs of the organisation in which they are working, so as to know how safe their interests are in that organisation.

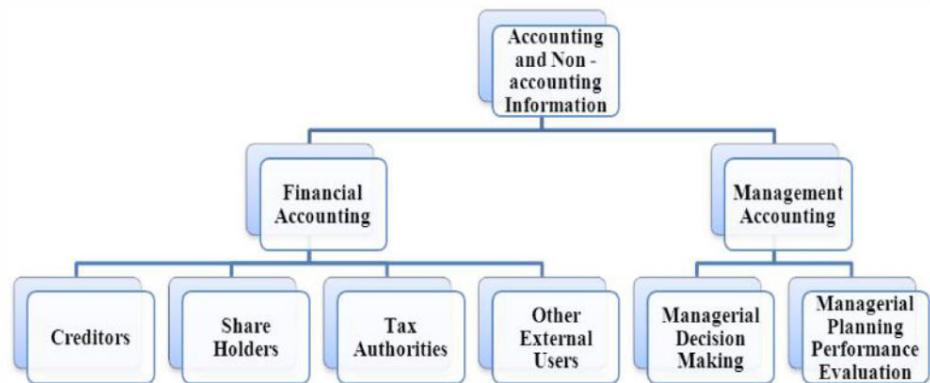
1.7 ACCOUNTING AS AN INFORMATION SYSTEM

Accounting is part of an organization's information system, which includes both financial and non-financial data. Accounting is the process of identifying, measuring and communicating economic information to permit judgment and decisions by users of the information. The main objective of accounting is to provide information to the users. Accounting is also required to serve some broad social obligations since the accounting information is used by a large body of people such as customers, employees, investors, creditors and government.

Accounting is commonly divided into (1) Financial Accounting, and (2) Managerial Accounting. Financial accounting refers to the preparation of general purpose reports for use by persons outside an organization. Such users include shareholders, creditors, financial analysts, labour unions, government regulations etc. External users are interested primarily in reviewing and evaluating the operations and financial status of the business as a whole.

Managerial accounting, on the other hand, refers to providing of information to managers inside the organization. For example a production manager may want a report on the number of units of product manufactured by various workers in order to evaluate their performance. A sales manager might want a report

showing the relative profitability of two products in order to pinpoint selling efforts. The financial reports are available from the libraries or company themselves whereas managerial accounting reports are not widely distributed outside because they often contain confidential information. The following figure shows that accounting is part of an organization system which includes both financial and non financial data:



Accounting as an information system

Uses of Accounting Information

Accounting provides information for the following three general uses:-

1) Managerial decision making: Management is continuously confronted with the need to make decisions. Some of these decisions may have immediate effect while the others have in the long run. Decisions regarding the price of the product like make or buy the product or to drop it, to expand its area of operations etc., are some of the examples of decisions making. Management Accounting provides necessary information to arrive at right conclusions.

2) Managerial planning, control and internal performance evaluation: Managerial accounting plays an important role in the planning and control. By assisting management in the decision making process, information is provided for establishing the standard. Accounting also provides actual results to compare with projections.

For example, where a marketing manager is given a target of sales revenues of Rs. 10 crores, the amount of Rs. 10 crores will serve as a standard for evaluating the performance of the marketing manager. If annual sales revenues vary significantly from Rs. 10 crores, steps will be taken to ascertain the causes for the difference. When the factors leading to the variance are not under the control of the marketing manager, then the marketing manager would not be held responsible for it. On the other hand the cause for variance is under the control of marketing manager then he will be held responsible in evaluating the performance of marketing manager. Accounting provides necessary information to measure the variance in the actual performance.

3) External financial reporting: Accounting has always been used to supply information to those who are interested in the affairs of the company. Various laws have been passed under which financial statements should be prepared in such way that required information is supplied to shareholders, creditors, government etc. For example, the investors may be interested in

the financial strength of the business, creditors may require information about the liquidity position, government may be interested to collect details about sales, profit, investment, liquidity, dividend policy, prices etc. in deciding social and economic policies. Information is required in accordance with generally accepted accounting principles so that it is useful in taking important decisions.

1.8 BRANCHES OF ACCOUNTING

Accounting, as we know it today, has evolved over many centuries in response to the changing economic, social and political conditions. The development of modern accounting was influenced by a number of factors such as industrial revolution, growth of large enterprises like companies, introduction of compulsory audit of companies, legal regulations, establishment of professional organisations like the Institute of Chartered Accountants of India, the Institute of Cost and Works Accountants of India, American Institute of Certified Public Accountants, etc. Economic development and technological improvements have resulted in an increase in the scale of business operations and the advent of company form of organisation. This has made management function more and more complex. These factors have increased the importance of accounting and have given rise to special branches of accounting. The important branches of accounting are briefly explained below:

Financial Accounting: The purpose of this branch of accounting is to keep a record of financial transactions and events so that:

- a) the net result of the operations of the business (profit or loss) during an accounting period can be ascertained;
- b) the financial position (assets, liabilities and capital position) of the business as at the end of the period can be ascertained; and
- c) relevant financial information can be provided to management and other interested parties.

Cost Accounting: The purpose of cost accounting is to analyse the expenditure so as to ascertain the cost of each product, operation, service, etc. The price of an article is nothing but the cost plus a certain amount of profit. Unless cost is known, price cannot be fixed rationally. Cost accounting helps not only in ascertaining the costs but also assists the management in controlling the costs.

Management Accounting: The purpose of management accounting is to assist the management in taking rational policy decisions and to evaluate the impact of its decisions and actions. Examples of such decisions are: pricing decisions, capital expenditure decisions, etc. This branch of accounting is primarily concerned with presenting information that may be needed by management in such decision-making.

In this course, we are concerned with financial accounting only.

Check Your Progress C

1. Mr. Agarwala started Agarwala Electricals shop with a capital of Rs. 1,00,000. As this amount is insufficient, he has borrowed Rs. 50,000 from Syndicate Bank. As he is not keeping good health, he appointed Mr. Ram Naresh to look after the business on a salary of Rs. 1,000 per month. Pavan Electrical Works supplies electrical goods to Agarwala Electricals

on credit. Mr. Mirchand, Mr. Sabir and Mr. Wilson are the other persons working in Agarwals Electricals, as salesmen. Mr. Agarwals wants to expand the business. He is not in a position to invest more money. Mr. Shyamlal wants to join as a partner. From this, identify the names of the following parties and write the answer in the blank space provided.

| | Name |
|--------------------------|-------|
| i) Business firm | |
| ii) Owner | |
| iii) Manager | |
| iv) Lender | |
| v) Creditor | |
| vi) Prospective Investor | |
| vii) Employees | |

2. Complete the following sentences:

- i) Accounting is the process of identifying, measuring and economic information to permit informed judgements.
- ii) Accounting designed to serve external parties to provide information relating to the operating activities of the business is termed as
- iii) Accounting designed for operational needs of business is termed as
- iv) Accounting is more or less compulsory for every business.

1.9 ADVANTAGES OF ACCOUNTING

The following are the advantages of a properly maintained accounting system:

- 1) **Replaces memory:** Since all the financial events are recorded in the books, there is no need to rely on memory. The books of account will serve as historical records. Any information required at any time can be had from these records.
- 2) **Provides control over assets:** Accounting provides information regarding balance of cash in hand and at bank, the stock of goods in hand, the amount receivable from various parties, the amount invested in various other assets, etc. Information about these matters help owner(s) and management to make use of the assets in the best possible way.
- 3) **Facilitates the preparation of financial statements:** With the help of information contained in the accounting records, financial statements viz., Profit and Loss Account and Balance Sheet can be easily prepared. These statements enable the businessman to know the net result of the business during an accounting period and its financial position.
- 4) **Meets the information requirements:** Various interested parties such as owners, management, lenders, creditors, etc. get the necessary information at frequent intervals which help them in their decision-making.

- 5) **Facilitates a comparative study:** The financial Statements prepared will enable the enterprise to compare its present position with that of its past, and with that of similar organisations. This helps them to draw useful conclusions and improve its performance.
- 6) **Assists the management in many ways:** It is possible to identify reasons for the profit earned or loss suffered. The identification of reasons helps in taking necessary steps to increase profits further, or to avoid losses. Accounting information will also help in planning and controlling the activities of the business.
- 7) **Difficult to conceal fraud or theft:** It is difficult to conceal fraud, theft, etc..as there is an automatic check in the form of periodic balancing of books of account. Further, in big organisations, the record keeping work is divided among many persons. so that chances of committing fraud are minimised.
- 8) **Tax matters :** The Government levies various taxes such as customs duty, excise duty, sales tax, and income tax. Properly maintained accounting records will help in the settlement of tax matters with the tax authorities.
- 9) **Ascertaining value of business:** In the event of sale of a business firm, the accounting records will help in ascertaining the value of business.

1.10 LIMITATIONS OF ACCOUNTING

The accounting information is used by various parties who form judgments about the profitability and the financial soundness of a business on the basis of such information. It is, therefore, necessary to know about the limitations of accounting. These are as follows:

1. They do not record transactions and events which are not of a financial character. Hence. They do not reveal a complete picture because facts like quality of human resources, licences possessed, locational advantage, business contacts, etc. do not find any place in books of account.
2. The data is historical in nature. The accountants adopt historical cost as the basis in valuing and reporting all assets and liabilities. They do not reflect current values, it is quite possible that items like land and buildings may have much more value than what is stated in the balance sheet.
3. Facts recorded in financial statements are greatly influenced by accounting conventions and personal judgements. Hence, they do not reveal the true picture. In many cases, estimates may be used to determine the value of various items. For example, debtors are estimated in terms of collectability, inventories are based on marketability, and fixed assets are based on useful working life. All these estimates are materially affected by personal judgements.
4. Data provided in the financial statements is insufficient for proper analysis and decision making. It only provides information about the overall profitability of the business. No information is given about the cost and profitability of different activities.

1.11 BASES OF ACCOUNTING

There are two bases of accounting: (i) cash basis, and (ii) accrual basis. These are explained below:

1.11.1 Cash Basis of Accounting

In this system, the accounting entries are made on the basis of cash received or cash paid. In other words, transactions are recorded only when cash is received or paid. The incomes earned but not yet received (accrued income) or the expenses incurred but not yet paid (expenses outstanding) are completely ignored while preparing the final accounts. For example, rent for the month of December, 2017 is paid in January, 2018. This is taken into the Profit and Loss Account of 2018 even though the benefit of that payment (accommodation) is enjoyed in 2017 itself.

1.11.2 Accrual Basis of Accounting

This system of accounting attempts to record the financial effects of transactions in the period in which they occur and not in the period in which the amount is received or paid to the enterprise.

Accrual accounting is also called 'Mercantile System of Accounting'. It recognises that buying, selling and all other operations of an enterprise during a period may not coincide with the period during which the related cash receipts and cash payments take place. In other words, all revenues earned in a year may or may not have been received in cash in that year. Similarly, all expenses incurred in a year may or may not have been paid in the same year. Accrual accounting attempts to relate the revenues and expenses to year in which they are actually earned or incurred. For example, rent for the month of December, 2017 is paid in January, 2018. As per the accrual principle, it would be taken to the Profit and Loss Account of the year 2017 and not 2018. This is more logical because the benefit of payment is enjoyed in the year 2017 and not in 2018.

The main difference between accrual accounting and cash basis of accounting is the recognition of revenues, gains, expenses and losses. The objective of accrual accounting is to account for the effects of transactions and events to the extent that their financial effects are recognisable and measurable in the periods in which they occur. The adjustments made in the final accounts in respect of prepaid expenses (prepaid insurance, salaries paid in advance, etc.), income received in advance (rent received in advance, interest received in advance, etc.), income earned but not yet received (interest receivable, commission receivable, etc.) are based on accrual accounting.

Sometimes, a business adopts a combination of both the above systems. In that case it is called 'Mixed or Hybrid System'. For example, the business may consider income in cash receipt basis and expenses on accrual basis. This is considered most conservative. In practice, most enterprise adapt the accrual basis of accounting.

1.12 QUALITATIVE CHARACTERISTICS OF ACCOUNTING INFORMATION

Business owners can use accounting information to conduct a financial analysis of business operations. Accounting information often has quantitative and qualitative characteristics. Quantitative characteristics refer to the calculation of financial transactions. Qualitative characteristics include the business owner's perceived importance of financial information. Business owners often require financial information when making business decisions. Incorrect or inappropriate information can hamper decision-making or cause business owners to make incorrect assessments about their companies. Some of the qualitative characteristics of accounting information are as follows:

(i) **Understandable**

Accounting information must be understandable. This is an important qualitative characteristic for small business owners. Many small business owners do not have a strong accounting background. Financial information that is too technical or cannot be understood by a layperson can be ineffective for business owners. Small business owners often use professional accountants to complete various accounting functions. Business owners should choose an accountant who can prepare information in an easily understandable manner.

(ii) **Usefulness**

Business owners need accounting information that is applicable to the business decision at hand. They can request financial statements, accounting schedules, reconciliations or cost-benefit analysis. For example, cost allocation reports may not provide sufficient information for business owners who must make a decision on hiring employees. Cost allocation usually refers to applying business costs to goods or services produced by the company, which has very little to do with human resources. Business owners should carefully request and review accounting information to ensure that it provides the most useful information for the decision-making process.

(iii) **Relevance**

Accounting information should relate to a specific time period or contain information regarding individual business functions. Business owners often conduct a trend analysis when reviewing financial information. The trend analysis compares historical financial information to the company's current accounting period information. Irrelevant historical information can severely distort the trend analysis process. For example, reviewing the production process for budgets requires relevant information on the cost of materials for budgets. Cost information on the materials to produce COGS would be irrelevant.

(iv) **Reliability**

Accounting information must be reliable, so that business owners can be reasonably assured that accounting information presents an accurate picture of the company's financial health. Business owners often use accounting information to secure external financing for their business. Information that is not reliable or accurate may cause lenders and investors to question the business's

management ability. Business owners may also struggle to secure external financing with poor accounting information.

(v) Comparable

Comparability allows business owners to review their company's accounting information against that of a competitor. Business owners use comparison to gauge how well their companies operate under certain market conditions. Owners often use the leading company of an industry for the comparison process. These companies usually have the most efficient and effective business operations. Non-comparable accounting information can make this a difficult process. For example, business owners should consider preparing financial statements according to standard accounting principles. The statements can then be compared to other company's financial standard prepared in a similar manner.

(vi) Consistent

Consistency refers to how business owners and accountants record financial information in a company's general ledger. Business owners need to ensure that financial transactions are handled the same way. Inventory purchases should be recorded the same way as yesterday, today and tomorrow. This helps companies create accurate historical records and limit the amount of financial accounts or journal entries included in their general ledgers.

1.13 FUNCTIONS OF ACCOUNTING

Functions of Accounting involves the creation of financial records of business transactions, flows of finance, the process of creating wealth in an organization, and the financial position of a business at a particular moment in time. The progress and reputation of any business big or small is build up on sound financial footing. There are number of parties who are interested in accounting information relating to a business. Financial Accounting communicates financial information of the business concern to various parties. Financial accounting provides information regarding the status of a business and results of its operation. Here are the functions of accounting :

(i) Recording

This is the basic function of accounting. It is essentially concerned with not only ensuring that all business transactions of financial character are in fact recorded but also that they are recorded in an orderly manner. Recording is done in the book "Journal".

(ii) Classifying

Classification is concerned with the systematic analysis of the recorded data, with a view to group transactions or entries of one nature at one place. The work of classification is done in the book termed as "Ledger".

(iii) Summarizing

This involves presenting the classified data in a manner which is understandable and useful to the internal as well as external end-users of accounting statements. This process leads to the preparation of the following statements: (1) Trial Balance, (2) Income statement (3) Balance Sheet.

(iv) Analysis and Interprets

This is the final function of accounting. The recorded financial data is analyzed and interpreted in a manner that the end-users can make a meaningful judgment about the financial condition and profitability of the business operations. The data is also used for preparing the future plan and framing of policies for executing such plans.

(v) Communicate

The accounting information after being meaningfully analyzed and interpreted has to be communicated in a proper form and manner to the proper person. This is done through preparation and distribution of accounting reports, which include besides the usual income statement and the balance sheet, additional information in the form of accounting ratios, graphs, diagrams, funds flow statements etc.

1.14 LET US SUM UP

1. Business has a series of transactions. It is not possible to remember all the transactions which have taken place over a period of time, and calculate the net effect of all such transactions i.e., profit or loss. Hence, the need for accounting takes place.
2. Information about the business enterprise is required for both internal and external use. To get the required information, a systematic record is necessary.
3. The objectives of accounting are: to keep systematic records; to ascertain the profit or loss and also the financial position; and to provide accounting information to interested parties for rational decision-making.
4. Accounting is the process of identifying, measuring, recording, classifying, summarising, analysing, interpreting and communicating the financial transactions and events.
5. The series of activities mentioned above, explain the nature and outline the scope of accounting.
6. Book-keeping is a part of accounting. It is the record keeping function of accounting and is limited upto the classifying stage.
7. Accountancy is the systematic knowledge, while accounting is the practice of the knowledge i.e., the actual maintenance of books of account and provide accounting information.
8. Many groups of people like owners, management, lenders, creditors, investors, tax authorities, employees, etc., are interested in the accounting information of the enterprise.
9. Changes in economic environment and the increasing complexity of management function have given rise to specialised fields of accounting such as financial accounting, cost accounting and management accounting.
10. There are many advantages of a properly maintained accounting system.

1.15 KEY WORDS

Accountancy: The science of measurement of wealth. It is the systematic knowledge of accounting.

Accounting: Process of identifying, measuring, recording, classifying, summarising and communicating business transactions and events in terms of money.

Accounting Year : A period of 12 months at the end of which the financial results of the enterprise are generally ascertained.

Accrual Basis of Accounting: A basis of accounting which takes into account all incomes, gains, expenses and losses in the year in which they are earned or incurred, and not when they are received or paid.

Book-keeping: Systematic recording of business transactions in the books of account.

Balance Sheet: A statement prepared for ascertaining the financial position of the business as at the end of the accounting period.

Cash Basis of Accounting: A basis of accounting in which accounts are prepared on the basis of cash received or cash paid. No accruals -are considered.

Cost Accounting: A branch of accounting concerned with measurement and control of costs.

Financial Accounting: It is primarily concerned with record keeping directed towards preparation of financial statements and other accounting reports.

Financial Position: Position of assets and liabilities of a business at a given point of time.

Financial Statements: Summary of accounting information such as Profit and Loss Account and Balance Sheet.

Final Accounts : Financial statements prepared at the end of the accounting period for ascertaining the profit or loss and the financial position of the business. They include Profit and Loss Account and the Balance Sheet.

Management: It is used in two senses:

- i) to mean the process of management or managing the business, for example, the day-to-day management is entrusted to paid managers; and
- ii) to mean the persons who are incharge of carrying out the business activity i.e., managers, for example, management wants this information. Report has to be submitted to the management.

Management Accounting: It is concerned with the supply of information which is useful to the management in planning, controlling and decision-making.

Profit: Excess of income over expenses.

Profit and Loss Account: A statement showing all incomes and expenses for the accounting period. It is prepared for ascertaining the operational result of the enterprise.

1.16 SOME USEFUL BOOKS

Bièrman, Harold & Drebin, Allan R., *Financial Accounting: An Introduction* (Philadelphia: W.B. Saunders Company, 1998).

Briston, R.J., *Introduction to Accountancy & Finance* (London: The Macmillan Press Ltd., 1991).

Maheshwari, S.N., *Principles and Practice of Book-Keeping* (New Delhi: Arya Book Depot, 2018).

Matulich, S. & Heitger, L.E., *Financial Accounting* (New York: McGraw Hill Book Company, 1990).

Patil, V.A. & Korlahalli, Principles and Practice of Book-Keeping (New Delhi: R. Chand & Co., 2018).

1.17 ANSWERS TO CHECK YOUR PROGRESS

- C 1. i)Agarwala Electricals Shop
- ii) Mr. Agarwala
 - iii) Mr. Ram Naresh
 - iv) Syndicate Bank
 - v) Pawan Electrical Works
 - vi) Mr. Shyamlal
 - vii) Mr. Mirchand, Mr. Sabir and Mr. Wilson.
2. i)Communicating
- ii) Financial Accounting
 - iii) Management Accounting
 - iv) Financial

1.18 TERMINAL QUESTIONS

1. Outline the need for accounting and briefly describe the objectives of accounting.
2. Define accounting and explain its scope.
3. Name the different parties interested in accounting information, and explain why do they want it.
4. What are the qualitative characteristics of accounting information? Briefly Explain.
5. Describe the advantages and limitations of accounting.
6. Briefly discuss the functions of accounting.
7. Define accounting. Explain the need for accounting.

8. Write short notes on the following:
 - a) Book-keeping
 - b) Accountancy
 - c) Accounting
9. Distinguish between cash basis and accrual basis of accounting with examples.

Note : These questions will help you to understand the unit better. Try to write answers for them. But, do not submit your answers to the University for assessment. These are for your own practice only.



UNIT 2 ACCOUNTING PROCESS AND RULES

Structure

- 2.0 Objectives
- 2.1 Introduction
- 2.2 Accounting Process
- 2.3 What is an Account?
- 2.4 Classification of Accounts
- 2.5 Principle of Double Entry
- 2.6 Accounting Rules
- 2.7 Let Us Sum Up
- 2.8 Key Words
- 2.9 Some Useful Books
- 2.10 Answers to Check Your Progress
- 2.11 Terminal Questions/Exercises

2.0 OBJECTIVES

After studying this unit, you should be able to:

- identify the different stages of accounting;
- classify accounts;
- analyze the dual effect of each transaction; and
- apply the rules of accounting, and determine the account to be debited and the account to be credited.

2.1 INTRODUCTION

So far you have learnt the definition of accounting, its objects, advantages, the terms commonly used in accounting, and the basic accounting concepts relevant to record keeping. You know accounting is the art of recording, classifying and summarising the business transactions, and interpreting the results thereof. So, the accounting process starts with recording of transactions and ends with the preparation of financial statements and their analysis. In this unit, we shall first identify the different stages involved in the accounting process and then discuss different classes of accounts, the principle of double entry, and the rules of debit and credit which you are expected to master.

2.2 ACCOUNTING PROCESS

The accounting process consists of the following four steps:

- i) Recording the Transactions
- ii) Classifying the Transactions
- iii) Summarising the Transactions
- iv) Interpreting the Results

Recording the Transactions

The accounting process begins with recording of transactions in the books of original entry. The book used for the original entries is called 'Journal'. Business transactions are recorded in the journal as and when they occur in the order of dates. You will learn the method of recording a transaction in the journal in Unit 5. Entries in the journal are made on the basis of various vouchers such as cash memos, invoices, receipts, etc.

Classifying the Transactions

The second step is to group the transactions of similar nature and post them in different accounts in another book called the 'Ledger'. For example, all transactions relating to cash are brought together and are recorded at one place in Cash Account in the ledger. Similarly, dealings with different persons are recorded separately in the account of each person. The accounts so prepared are totaled and balanced periodically to know the net effect of related transactions. We shall discuss the process of posting into ledger and balancing of accounts in detail in Unit 5.

Summarising the Transactions

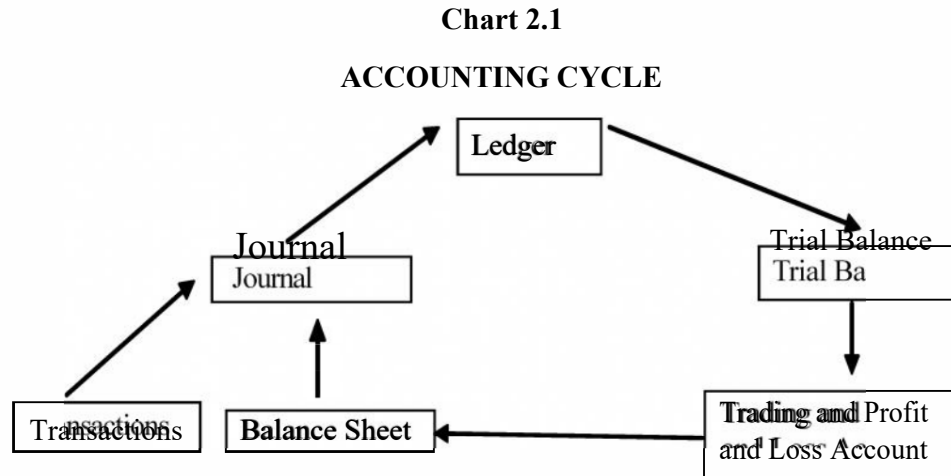
The next step is to prepare a year-end summary known as 'Final Accounts'. But before final accounts are prepared, we prepare a statement called 'Trial Balance' to test the arithmetical accuracy of the work done. In other words, the trial balance is prepared to find out whether the Principle of Double Entry has been strictly followed or not, while recording the transaction. Then, with the help of the trial balance and some other relevant information we prepare the final accounts. The objectives of preparing the final accounts are: (i) to know the net result of business activities, and (ii) to know the financial position of the business. The final accounts consist of an income statement called 'Trading and Profit and Loss Account', and a position statement called 'Balance Sheet'.

The Trading and Profit and Loss Account is prepared to know whether the business unit has earned profit or incurred loss. The Balance Sheet is prepared to know the financial position of the business, i.e., what the business owns and what it owes.

Interpreting the Results

The results are then analysed and interpreted with a view to assess the performance of the business, its future profit-earning capacity and its ability to pay short-term and long-term debts. The results and conclusions thus arrived at are reported to the interested parties like investors, management, bankers, creditors, tax authorities, etc.

The balances on various accounts shown in the Balance Sheet will then be transferred to the new books of account for the next year. The process of recording transactions for the next year is again started, this continuous process of accounting is referred to as the 'Accounting Cycle' because it repeats itself



2.3 WHAT IS AN ACCOUNT?

We have seen that an account is a summarised record of the effect of all transactions relating to a particular person or an item. Let us now learn more about this term.

An account is vertically divided into two halves and resembles the shape of the English alphabet ‘T’ as under:

| Name of the account | |
|---------------------|-----|
| Dr. | Cr. |
| | |

The left hand side is called the ‘debit side’. It is indicated by writing ‘Dr.’ (abbreviation for debit) on the left hand top corner of the account. The right hand side known as the ‘credit side’ is indicated by writing ‘Cr.’ (abbreviation for credit) on the right hand top corner of the account. The name of the account is written at the top in the centre. The word ‘Account’ or its abbreviation ‘A/ c’ is added to the name of the account.

2.4 CLASSIFICATION OF ACCOUNTS

All business transactions broadly be classified into three categories: (i) those relating to persons, (ii) those relating to property (assets), and (iii) those relating to incomes and expenses. Hence, it becomes necessary to keep an account for each person, each asset, and each item of income and expense. Thus, three classes of accounts are maintained for recording all business transactions. They are: (i) Personal Accounts, (ii) Real Accounts, and (iii) Nominal Accounts. Real and Nominal Accounts taken together are called Impersonal Accounts.

Personal Accounts

Accounts which show dealings with persons are called 'Personal Accounts'. Such dealings may relate to credit purchases of goods or credit sales of goods or loans taken, etc. A separate account is kept in the name of each person for recording the benefits received from, or given to, the person in the course of dealings with him. Examples are: Krishna's Account, Gopal's Account, Loan from Ratanlal Account, etc.

Personal accounts also include accounts in the names of institutions or companies called artificial persons) such as Indian Bank Account, Nagarjuna Finance Limited Account, the Andhra Pradesh Paper Mills Limited Account, etc.

The accounts which represent expenses payable, expenses paid in advance, incomes receivable and incomes received in advance are also personal accounts, though impersonal in name. For example, when salaries are due to the employees, but not paid before closing of the books of account for the year, an account called 'Salaries Outstanding Account' will be opened in the books. The Salaries Outstanding Account is regarded as a personal account representing the employees to whom salaries are payable by the business. Such a personal account is called Representative Personal Account' as it represents a particular person or a group of persons. Other examples of representative personal accounts are: Interest Outstanding Account, Prepaid Insurance Account, Rent Received in Advance Account, Commission Outstanding Account. etc.

Capital Account and Drawings Account are also treated as personal accounts as they represent dealings with the owner of the business.

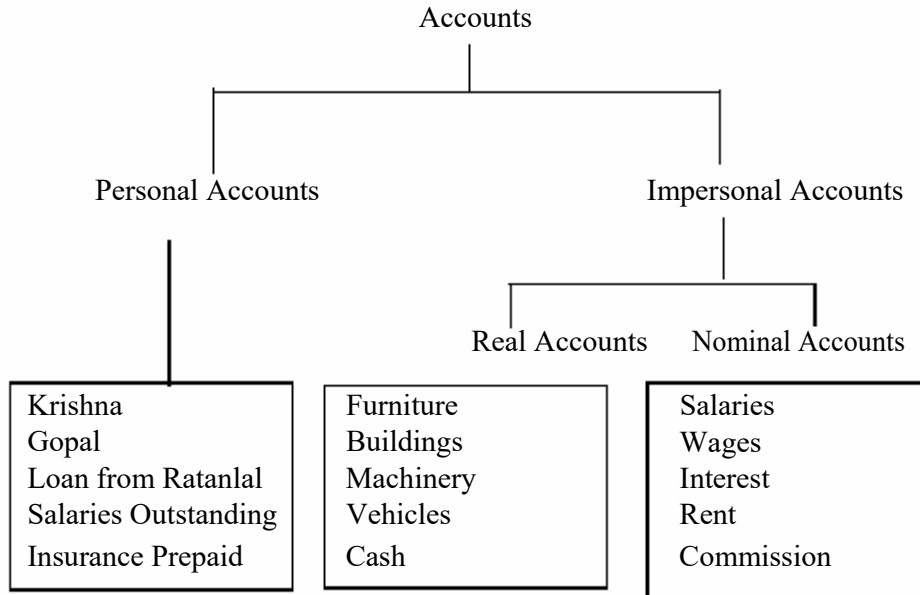
Real Accounts

Accounts relating to properties or assets are known as 'Real Accounts'. Every business needs assets such as Machinery, Furniture, etc., for running its activities. In book-keeping, a separate account is maintained for each asset owned by the business. Dealings relating to purchase or sale of the asset are recorded through this account. Furniture Account, Machinery Account, Building Account, etc., are some examples of real accounts. Cash Account which shows receipts and payments of cash is also a real account. They are known as real accounts because they represent things of value owned by the business.

Nominal Accounts

Accounts relating to expenses, losses, incomes and gains are known as 'Nominal Accounts'. Every business unit incurs certain expenses such as payment of salaries to employees, payment of wages to workers, etc., while carrying out its activities. It may also suffer losses such as loss by fire, loss by theft, etc. It may also earn certain incomes and gains such as receipt of commission, receipt of interest, profit on sale of an asset, etc. A separate account is maintained for recording each item of expense, loss, income or gain. Thus, Wages Account, Salaries Account, Commission Received Account, and Interest Received Account are all nominal accounts. Classification of accounts is presented in Chart 2.2.

CLASSIFICATION OF ACCOUNTS



Check Your Progress A

1. State whether each of the following statements is **True** or **False**.
 - a) First recording of transactions is done in Journal.
 - b) Summarising of all business transactions is done in Ledger.
 - c) Interpretation of the results is done by preparing Trial Balance.
 - d) Right hand side of an account is called credit side.
 - e) Personal accounts include accounts of persons with whom the business deals.
 - f) Accounts which represent an item of asset is called Representative Personal Accounts.
 - g) Accounts relating to assets held in the name of the firm are called Nominal Accounts.

2. Names of some accounts are given below, classify them into Personal, Real or Nominal.

| Name of Account | Class of Account |
|---------------------------------------|------------------|
| a) Bank A/c | |
| b) Interest A/c | |
| c) Interest Outstanding A/c | |
| d) Patents A/c | |
| e) Loan from Gopal Das A/c | |
| f) Loose Tools A/c | |
| g) Commission Received in Advance A/c | |
| h) Prepaid Salaries A/c | |
| i) Stationery A/c | |
| j) Electricity Charges A/c | |

3. State whether the following classification of accounts is correct or not. Give the correct classification, wherever necessary.

| Name of Account | Class of Account | If correct, put a tick mark. If wrong, state the correct class of account |
|-------------------------------------|------------------|---|
| a) Fixtures A/c | Nominal Account | |
| b) Discount Received A/c | Personal Account | |
| c) Discount Received in advance A/c | Nominal Account | |
| d) Ram & Co. A/c | Personal Account | |
| e) Goodwill A/c | Personal Account | |
| f) Office Expenses A/c | Real Account | |
| g) Office Equipment A/c | Nominal Account | |
| h) Cash A/c | Real Account | |
| i) Cartage A/c | Real Account | |
| j) Import Duty/A/c | Real Account | |

2.5 PRINCIPLE OF DOUBLE ENTRY

You have learnt earlier that a transaction results in the transfer of money or money's worth i.e., goods or services. Hence, every business transaction involves a transfer and as such consists of two aspects: (i) the receiving aspect, and (ii) the giving aspect. It is necessary to note that these two aspects go together, as receiving necessarily implies giving and vice versa. For example, let us consider a transaction where machinery is purchased for cash. In this case, the receiving aspect is machinery (as machinery comes in) and giving aspect is cash (as cash goes out). Similarly, in a transaction where wages are paid to workers, the receiving aspect is the service of the workers and the giving aspect is cash. The receiving and giving take place between two parties or the accounts representing those parties. Thus, in the first example discussed above, from the point of view of the business, Machinery Account is receiving the benefit and Cash Account is giving the benefit. In the second example, Wages Account is receiving the benefit in the form of service and Cash Account is giving the benefit. These two aspects are represented in every account by the terms 'Dr.' and 'Cr.'. The 'Dr.' represents the receiving aspect and the 'Cr.' the giving aspect. The record of any business transaction will be complete only when both of these aspects are recorded. This recording of the two aspects of each transaction is known as 'Double Entry' and the system is called 'Double Entry System'.

Thus, every transaction affects two accounts and according to Double Entry system entries will be made in both of them on the debit side (left hand side) in one account and on the credit side (right hand side) in the other. In case of the first example (machinery purchased for cash), entries will be made on the debit side of Machinery Account and the credit side of Cash Account. In the case of second example (wages paid to workers), entries will be made on debit side of Wages Account and the credit side of Cash Account. Hence, for every debit there must be a corresponding credit for an equal amount and

vice versa. This is known as the ‘Principle of Double Entry, and all business transactions are recorded in books of account according to this principle.

In order to develop a clear understanding of the receiving and giving aspects of various business transactions and the accounts affected thereby study Table 2.1 carefully.

Table 2.1: Dual Aspect of Transactions and the Account Affected

| Transaction | First Aspect | | Second Aspect | |
|--|---------------------------|------------------|---------------|------------------|
| | Receiving Receiver | Account affected | Giving/Giver | Account affected |
| 1. Commenced business with Rs. 50,000 as capital. | Cash | Cash A/c | Proprietor | Capital A/c |
| 2. Bought goods for cash Rs. 5,000 | Goods | Goods A/c | Cash | Cash A/c |
| 3. Bought goods from Ramesh & Co. on credit Rs. 10,000 | Goods | Goods A/c | Ramesh & Co. | Ramesh & Co. A/c |
| 4. Sold goods for cash Rs. 12,000 | Cash | Cash A/c | Goods | Goods A/c |
| 5. Sold goods to Ajay on credit Rs. 2,500 | Ajay | Ajay’s A/c | Goods | Goods A/c |
| 6. Paid cash to Ramesh & Co. Rs. 5,000 | Ramesh & Co. | Ramesh & Co. A/c | Cash | Cash A/c |
| 7. Received Cash from Ajay Rs. 1,000 | Cash | Cash A/c | Ajay | Ajay’s A/c |
| 8. Paid rent Rs. 1,000 | Benefit of accommodation | Rent A/c | Cash | Cash A/c |
| 9. Purchased Typewriter Rs. 4,500 | Typewriter | Typewriter A/c | Cash | Cash A/c |
| 10. Paid interest on loan Rs. 1,200 | Benefit of using the loan | Interest A/c | Cash | Cash A/c |

Check Your Progress B

Manohar had the following transactions. Determine the two aspects of each transaction and the accounts affected.

| Transaction | First Aspect | | Second Aspect | |
|--|--------------------|------------------|---------------|------------------|
| | Receiving Receiver | Account affected | Giving/Giver | Account affected |
| a) Purchased machinery for Rs. 60,000 | | | | |
| b) Purchased goods from Karim & Co. on credit Rs. 10,000 | | | | |

Theoretical Framework

| | | | | |
|--|--|--|--|--|
| c) Sold goods for cash Rs. 2,400 | | | | |
| d) Loan taken from bank Rs. 25,000 | | | | |
| e) Travelling expenses paid to salesman Rs. 122 | | | | |
| f) Paid electricity charges Rs. 110 | | | | |
| g) Received Cash from Shanker Rs 1,200 | | | | |
| h) Paid cash to Karim & Co. Rs. 2,000 | | | | |
| I) Cash drawn for personal expenses Rs. 500 | | | | |
| j) Paid cash into bank Rs. 5,000 | | | | |

2.6 ACCOUNTING RULES

We have already seen that every transaction affects two accounts and this effect will have to be entered in both of them, on the debit side in one account and on the credit side in the other account. It is, therefore, necessary to find out which of the two accounts is to be debited and which is to be credited. For this purpose, one has to first identify the class to which these two accounts belong i.e., personal, real or nominal; and then certain rules known as 'rules of debit and credit' are applied. These rules are as follows:

1. **For Personal Accounts:** The account of the person receiving the benefit (receiver) of the transaction (from the business) is debited and the account of the person giving the benefit (giver) of the transaction (to the business) is credited.
2. **For Real Accounts:** When an asset is coming into the business, the account of that asset is debited. When an asset is going out of the business, the account of that asset is credited.
3. **For Nominal Accounts:** When an expense is incurred or loss suffered, the account representing the expense or the loss is debited because the business receives the benefit thereof. When any income is earned or gain made, the account representing the income or the gain is credited. This is because the business gives some benefit.

The above rules have been shown in Table 2.2

Table 2.2 : Rules of Debit and Credit

| Class of Account | Debit | Credit |
|-------------------|---------------------|------------------|
| Personal Accounts | The Receiver | The Giver |
| Real Accounts | What comes in | What goes out |
| Nominal Accounts | Expenses and Losses | Income and Gains |

We shall now see the application of these rules, taking a few transactions.

Example 1: Paid cash to Ramesh & Co. Rs. 5,000.

In this case, the two accounts affected are Ramesh & Co.'s Account and Cash Account. Ramesh & Co.'s Account is a personal account and Cash Account is a real account. Ramesh & Co. has received the benefit (cash Rs. 5,000) from the business and, therefore, it has to be debited as per the first part of the rule for personal accounts 'debit the receiver'. As cash has gone out, Cash Account will be credited according to the second part of the rule for real accounts 'credit what goes out'.

Example 2: Received cash from Ajay Rs. 1,000.

In this case, Cash Account and Ajay's Account are the two accounts affected. Cash Account is a real account and Ajay's account is a personal account. As cash has come in, Cash Account will have to be debited according to the first part of the rule for real accounts 'debit what comes in'. Ajay has given the benefit (cash Rs. 1,000) to the business and, therefore, his account will have to be credited as per the second part of the rule for personal accounts 'credit the giver'.

Example 3: Paid rent Rs. 1,000.

In this case, the accounts affected are Rent Account and Cash Account. Rent Account is a nominal account and Cash Account is a real account. As per the first part of the rule for nominal accounts, 'debit expenses and losses', Rent Account will have to be debited as it is an expense to the business. As cash has gone out, Cash Account will have to be credited according to the second part of the rule for real accounts 'credit what goes out'.

Example 4: Received Rs 400 as commission.

In this case, Cash Account and Commission Account are the two accounts affected. Cash Account is a real account and Commission Account is a nominal account. As cash has come in, Cash Account will have to be debited according to the first part of the rule for real accounts 'debit what comes in'. As per second part of the rule for nominal accounts, 'credit incomes and gains', Commission Account will be credited as it is an income to the business.

You have seen that the three rules of debit and credit explained above, make it possible to analyse the transaction and identify the account to be debited and the account to be credited. Even though it has been explained that there are three different rules for the three classes of accounts, it is to be noted that these three rules, in reality, are a manifestation of the dual aspect concept. In other words, the account that receives the benefit of the transaction is to be debited and the account that gives the benefit is to be credited, irrespective of the class of account involved.

Let us now apply these rules to the transactions given in Table 2.1 and ascertain which account is to be debited and which account is to be credited. This has been analysed in Table 2.3. You may go through it carefully and grasp the application of the Rules of Debit and Credit.

Table 2.3 : Analysis of Accounts Affected

| Transaction | Accounts affected Accounts | Class of Credit | Debit/ Credit | Reasons |
|--|-----------------------------------|--------------------|------------------|---|
| 1. Commenced business with Rs. 50,000 as capital | i) Cash A/c ii) Capital A/c | Real Personal | Debit Credit | Cash comes in Proprietor gives benefit |
| 2. Bought goods for cash Rs. 5,000 | i) Goods A/c ii) Cash A/c | Real Real | Debit Credit | Goods come in Cash goes out |
| 3. Bought goods from Sohan credit Rs.10000 | i) Goods A/c ii) Sohan A/c | Real Personal | Debit Credit | Goods come in Giver |
| 4. Sold goods for cash Rs. 1,500 | i) Cash A/c ii) Goods A/c | Real Real | Debit Credit | Cash comes in Goods go out |
| 5. Sold goods to Vijay on credit Rs. 2,500 | i) Vijay A/c ii) Goods A/c | Personal Real | Debit Credit | Receiver Goods go out |
| 6. Purchased furniture Rs. 4,000 | i) Furniture A/c ii) Cash A/c | Real Real | Debit Credit | Furniture comes in Cash goes out |
| 7. Sold old typewriter Rs. 500 | i) Cash A/c ii) Typewriter A/c | Real Real | Debit Credit | Cash comes in Typewriter goes out |
| 8. Purchased postage stamps Rs. 50 | i) Postage A/c ii) Cash A/c | Nominal Real | Debit Credit | Postage is an expense Cash goes out |
| 9. Paid salaries Rs. 6,000 | i) Salaries A/c ii) Cash A/c | Nominal Real | Debit Credit | An expense Cash goes out |
| 10. Received interest Rs. 200 | i) Cash A/c ii) Interest A/c | Real Nominal | Debit Credit | Cash comes in An income |

2.7 LET US SUM UP

- The accounting process starts with recording of transactions in the journal. From the journal, they are posted to ledger accounts. Then, a trial balance is prepared to verify the accuracy of the work done and the final accounts are prepared to know the profit or loss made and the financial position of the business. Finally, the results are analysed and reported to the interested parties.
- Accounts are classified as Personal, Real, and Nominal Accounts. Accounts showing dealings with persons are called personal accounts. Accounts relating to assets are known as real accounts and those relating to expenses, losses, incomes and gains are known as nominal accounts.
- Every transaction consists of two aspects: (i) the receiving aspect and ii) the giving aspect. The recording of this two-fold effect of each transaction is called 'Double Entry'. The principle of double entry is, for every debit there must be an equal and a corresponding credit and vice versa.
- Certain rules are followed for recording business transactions. In the case of personal accounts, the rule is, 'Debit the receiver and Credit the giver. For real accounts, the rule is, 'Debit what comes in and Credit what goes out', and for nominal accounts the rule is, 'Debit expenses and losses and Credit incomes and gains'.

2.8 KEY WORDS

Account: A summarised record which shows the effect of the transactions relating to a particular person or thing.

Credit: Credit represents the giving aspect of a transaction.

Debit: Debit represents the receiving aspect of a transaction.

Double Entry Principle: Principle of recording both the receiving and the giving aspects of each transaction.

Nominal Accounts: Accounts relating to expenses, losses, incomes and gains.

Personal Accounts: Accounts which relate to persons.

Real Accounts: Accounts which relate to assets.

2.9 SOME USEFUL BOOKS

Briston, R.J., Introduction to Accountancy and Finance, (London: The Macmillan Press Ltd., 2017).

Birman, Harold & Derbin, Allan R., Financial Accounting: An Introduction, (Philadelphia: W.B. Saunders Company, 2008).

Grewal, T.S., Double Entry Book-Keeping, (New Delhi: Sultan Chand & Sons, 2018)

Maheshwari, S.N., Principles & Practice of Accountancy Part-I, (New Delhi: Arya Book Depot, 2018).

Patil V.A. & Korlahalli, J .S., Principles and Practice of Book-Keeping, (New Delhi R. Chand & Co., 2018).

2.10 ANSWERS TO CHECK YOUR PROGRESS

- A 1. a) True b) False
 c) False d) True
 e) True f) False
 g) False
2. a, c, e, g, h are Personal Accounts. d
 and f are Real Accounts.
 b, i, j are Nominal Accounts.
3. a) Real Account b) Nominal Account
 c) Personal Account d) Correct
 e) Real Account f) Nominal Account
 g) Real Account h) Correct
 i) Nominal Account j) Nominal Account

B

| Transaction | First Aspect | | Second Aspect | |
|-------------|----------------------------------|-------------------------|-----------------------|-----------------|
| | Receiving/Receiver affected | Account | Giving/Giver affected | Account |
| a) | Machinery | Machinery A/c | Cash | Cash A/c |
| b) | Goods | Goods A/c | Karim & Co. | Karim & Co. A/c |
| c) | Cash | Cash A/c | Goods | Goods A/c |
| d) | Cash | Cash A/c | Bank | Bank Loan A/c |
| e) | Benefit of service (Transport) | Travelling Expenses A/c | Cash | Cash A/c |
| f) | Benefit of service (Electricity) | Electricity Charges A/c | Cash | Cash A/c |
| g) | Cash | Cash A/c | Shanker | Shanker's A/c |
| h) | Karim & Co. | Karim & Co. A/c | Cash | Cash A/c |
| i) | Proprietor | Drawings A/c | Cash | Cash A/c |
| j) | Bank | Bank A/c | Cash | Cash A/c |

2.11 TERMINAL QUESTIONS/EXERCISES

Questions

1. Discuss the various stages involved in the accounting process.
2. What is an Account? Describe the various classes of accounts with examples.
3. What do you understand by the Principle of Double Entry? Give the rules of debit and credit with suitable examples.

Exercises

- I. From the following transactions, determine the accounts affected, classify them and state whether it is to be debited or credited.

| | Rs. |
|---|--------|
| a) Purchased typewriter for cash | 5,000 |
| b) Purchased furniture from R & Co. on credit | 50,000 |
| c) Interest received | 300 |
| d) Paid wages | 800 |
| e) Received cash from A | 2,000 |

| | | |
|--|--------|---|
| f) Additional capital introduced into the business | 5,000 | Nature and Scope of Accounting |
| g) Paid cash to B | 1,500 | |
| h) Paid carriage | 200 | |
| i) Purchased goods from F & Co. on credit | 12,000 | |
| j) Sold goods for cash | 1,400 | |

Answer:

| Transaction | Account to be debited | Nature of account | Account to be credited | Nature of account |
|-------------|-----------------------|-------------------|------------------------|-------------------|
| a) | Typewriter A/c | Real | Cash A/c | Real |
| b) | Furniture A/c | Real | R & Co. A/c | Personal |
| c) | Cash A/c | Real | Interest A/c | Nominal |
| d) | Wages A/c | Nominal | Cash A/c | Real |
| e) | Cash A/c | Real | A's A/c | Personal |
| f) | Cash A/c | Real | Capital A/c | Personal |
| g) | B's A/c | Personal | Cash A/c | Real |
| h) | Carriage A/c | Nominal | Cash A/c | Real |
| i) | Goods A/c | Real | F & Co. A/c | Personal |
| j) | Cash A/c | Real | Goods A/c | Real |

2. Ram had the following transactions. Determine the accounts to be debited and credited:

| | |
|--|----------|
| | Rs. |
| a) Command business with cash | 1,00,000 |
| b) Purchased goods for cash | 15,000 |
| c) Paid for advertisement | 600 |
| d) Bought goods from P & Co. on credit | 20,000 |
| e) Sold goods for cash | 6,000 |
| f) Sold goods to Z on credit | 12,000 |
| g) Paid commission | 900 |
| h) Paid salaries | 8,000 |
| i) Paid rent | 600 |
| j) Loan taken from Hiralal | 50,000 |

Answer:

| Transaction | Account to be debited | Account to be credited |
|--------------------|------------------------------|-------------------------------|
| a) | Cash A/c | Capital A/c |
| b) | Goods A/c | Cash A/c |
| c) | Advertisement A/c | Cash A/c |
| d) | Goods A/c | P & Co. A/c |
| e) | Cash A/c | Goods A/c |
| f) | Z A/c | Goods A/c |
| g) | Commission A/c | Cash A/c |
| h) | Salaries A/c | Cash A/c |
| i) | Rent A/c | Cash A/c |
| j) | Cash A/c | Loan from Hiralal A/c |

Note : These questions will help you to understand the unit better. Try to write answers for them. But, do not submit your answers to the University for assessment. These are for your own practice only.

UNIT 3 ACCOUNTING PRINCIPLES

Structure

- 3.0 Objectives
- 3.1 Introduction
- 3.2 Some Basic Terms
- 3.3 Accounting Principles
 - 3.3.1 Concepts to be Observed at the Recording Stage
 - 3.3.2 Concepts to be Observed at the Reporting Stage
- 3.4 Systems of Book-Keeping
 - 3.4.1 Double Entry System
 - 3.4.2 Single Entry System
- 3.5 Let Us Sum UP
- 3.6 Key Words
- 3.7 Some Useful Books
- 3.8 Answers to Check Your Progress
- 3.9 Terminal Questions/Exercises

3.0 OBJECTIVES

After studying this unit, you should be able to:

- explain the meaning of some basic terms of accounting;
- identify assets, liabilities, incomes and expenses;
- explain the need for the nature of accounting concepts;
- develop familiarity with the basic concepts to be kept in mind at the recording stage;
- decide what type of transactions are to be recorded in books of account;
- ascertain the amount of capital, liabilities and assets from the accounting equation; and
- describe about the two systems of book-keeping.

3.1 INTRODUCTION

In Unit 1, you learnt about the nature, scope and importance of accounting. You know accounting is often called the 'Language of Business'. Language is the means of communication. Accounting also serves this function. It communicates the results of business operations to interested parties. Let us understand this language first. In this unit, we intend to explain some of the terms which are commonly used in accounting and also the basic concepts underlying the accounting system.

3.2 SOME BASIC TERMS

Entity: The word entity literally means a thing that has a definite individual existence. Business entity means a specifically identifiable business enterprise like Khanna Jewellers, Prakash Pipes Ltd., etc. An accounting system is devised for a specific business entity (also called ‘accounting entity’).

Event and Transaction: Anything that brings about a change in the financial position of an entity is called an ‘event’. In other words, an event is a happening of consequence to an entity. A transaction is a particular kind of event involving some value between two or more entities. In other words, it is any dealing between two or more persons involving exchange of goods or services for a consideration usually in money.

Transactions are of two kinds (i) cash transactions and (ii) credit transactions. Cash transactions are those in which cash is involved in the exchange. For example, purchase of goods for cash, purchase of vehicle for cash, payment of rent etc. In case of credit transactions cash is not paid immediately, the settlement is postponed to a later date. For example, goods are purchased on credit on April 15, 2018 and the cash is to be paid on August 1, 2018.

Goods: The term ‘goods’ refers to articles in which the business deals. Only those articles which are purchased for the purpose of sale are called goods. Other articles which are purchased for the purpose of using them in the business are not called goods. For example, in case of a fan dealer, fans are goods. He may be having tables and chairs. But they are not goods for him. In case of a furniture dealer, tables and chairs are goods. He may be having fans, but they are not goods for him.

Debtor: A debtor is one who owes some amount to the business. For example, a customer who purchases goods on credit from the business, is a debtor to the business.

Creditor: A creditor is one to whom the business owes some amount. One who supplies goods or provides some services on credit to the business is a creditor.

Books of Account: These are the different sets of records, whether in the form of bound books or loose sheets wherein the various business events and transactions are recorded e.g., journal and ledger. If necessary, the journal and also the ledger may be sub-divided into a number of books.

Entry: The recording or entering a transaction or event in the books of account is called an entry.

Journal: Journal is the book of prime entry. It is used for recording all transactions and events of a business entity in the first stage.

Ledger: The transactions recorded in the journal are transferred to a separate book called ledger. In this book, a separate account is opened and maintained for each item. For example, Capital Account, Salaries Account, Furniture Account, Building Account, etc. Ledger is the main book for accounting information and, hence, it is sometimes called the ‘king of books of account’.

Account: An account is a classified statement of transactions relating to a person or a thing or any other subject. It is vertically divided into two parts in T shape (alphabet T). The benefits received by that account are recorded on the left

hand side (technically called the 'debit side') and the benefits given by that account are recorded on the right hand side (technically called the 'credit side'). This type of recording helps in knowing the net result i.e., whether that account has received more or given more.

To debit an account: It means making an entry for a transaction on the debit side (left hand side) of an account.

To credit an account: It means making an entry for a transaction on the credit side (right hand side) of an account.

Assets: Assets are things of value or economic resources (property) owned by the enterprise. In other words, cash or any thing which enables the business entity to get cash or a benefit in future is an asset. Land, buildings, machinery, vehicles, furniture, stock of goods, cash, etc., are some examples of assets.

Expenditure: Expenditure means the spending of money or incurring a liability for some benefit/ service received by the business entity. Purchase of machinery, purchase of furniture, payment of salaries, rent, etc., are some examples of expenditure. If the benefit of an expenditure is limited to one year, it is treated as an expense (also called revenue expenditure) such as payment of salaries and rent. On the other hand, if the benefit of an expenditure is available for more than one accounting year, it is treated as an asset (also called capital expenditure) such as purchase of furniture and machinery.

Equities: All claims or rights over the assets of a business firm are called equities. Equities are of two types : (i) creditors' equity, and (ii) owners' equity. The claims of the outsiders are called creditors, equity or liabilities. The claim of the owner is called owner's equity or capital.

Liabilities: Liabilities (also called creditors' equity) are the amount owed by the business firm to outsiders other than the owner(s). Loan from a bank, creditor for goods supplied, rent payable, salaries payable, interest payable to the lenders are some examples of liabilities.

Capital: Capital is the amount invested by the owner(s). It represents the owner's claim on the firm's assets and is known as owner's equity. It is also called net assets or net worth.

Drawings: Drawings refer to the amount withdrawn or the value of goods taken by the proprietor for personal use from the business.

Profit: Profit is the excess of income over expenditure during a period of time. It is owner's equity.

Loss: In one sense, loss means money or money's worth lost without receiving any benefit. For example, cash or goods lost by theft or fire accident. In the context of Profit and Loss Account, loss represents to the excess of expenditure over income during a period of time. In either case, loss decreases the owner's equity.

Income: Income, also called revenue, is the amount earned by a business entity resulting from operations which constitute its major or central activities. For example, sale of goods or services.

Gain: Gain is a profit that arises from events or transactions which are incidental to business, such as sale of an asset, winning a court case, appreciation in the value of land and buildings, etc.

Trade discount: It is a common practice these days to print the price of an article on its package. The price so mentioned on the article is called the 'catalogue price' or 'list price'. When you buy an article, the seller may agree to give you some concession and charge a price which is less than the list price. Such concession or reduction in price is called 'trade discount'. This, is an allowance given by the seller to the buyer on the list price at the time of sale. Trade discount is generally given by the manufacturer to the wholesaler and by the wholesaler to the retailer. Suppose a bookseller buys 10 copies of a book 'Principles and Practice of Accountancy' by R. Sriram, priced at Rs. 25. The publisher allows a discount of 10% and charges Rs. 225 net (list price Rs. 250 minus discount of Rs. 25). The buyer pays only the net price. Recording in books of account is also made for the net amount only. No specific entry is required for the trade discount.

Cash discount: When goods are sold on credit, the buyer is expected to pay the amount on or before the due date. However, if the buyer makes the payment before the due date, the seller may allow him some reduction in the amount due and settle the account. Such an allowance is called 'cash discount'. It is allowed at the time of payment. It motivates the debtor to make prompt payment. Suppose, the books worth Rs. 225 (net amount) were sold on February 1, 2018 on credit for one month. The due date is March 1, 2018. The bookseller offers to make the payment on February 15, 2018. The publisher accepts Rs. 220 in settlement of the account. The balance amount of Rs. 5 is the cash discount allowed. Cash discount must be recorded in the books of account in order to show that the party account stands cleared and nothing more remains due from him.

Voucher: A documentary (written) evidence of a transaction is called a voucher. For example, if we buy goods for cash we get cash memo; if we buy on credit we get an invoice; and so on. Entries in books of account are made with the help of such vouchers.

Solvent: A person who is in a position to pay his debts as they become due.

Insolvent: A person who is not in a position to pay his debts in full and is so declared by the court.

Bad debts: The amount of debt which is unrealisable from a debtor who became insolvent.

Stock: The amount of goods lying unsold or unused. It also includes stock of raw materials and semi-finished goods.

Check Your Progress A

1. Fill in the blanks :
 - i) A person who owes money to the firm is
 - ii) A person to whom the firm owes money is a
 - iii) All articles that are purchased for resale are called
 - iv) The property of the business in the form of land and buildings, machinery, etc. is called

- v) Drawings refer to the withdrawal of cash or goods by the owner for
 - vi) The amount of debt..... from the debtor is termed as bad debts.
 - vii) The amount invested by the owner in business is called
 - viii) The amount received in part is called receipt on
2. State in each case whether the item shall be regarded as goods or an asset
- i) Furniture purchased by Rama Furnishers for resale.
 - ii) Furniture purchased by Krishna Stationery Mart.
 - iii) Machinery purchased by Abdul Engineering Company for use in their factory.
 - iv) Electric motors purchased by Punjab Machinery Stores who deal in machinery.
 - v) Power looms manufactured by KCP Ltd., for sale to a textile company.

3. Mr. Rakesh started Rakesh Trading Company with a capital of Rs. 30,000. The company also borrowed Rs. 10,000 from the State Bank of India. The firm purchased a delivery van for Rs. 20,000, furniture for Rs. 5,000, typewriter for Rs. 6,000, account books and other stationery for Rs. 500. It has purchased goods on credit from M/s Gurucharan Singh & Co., for Rs. 4,000, and from M/s Lalwani Traders for Rs. 3,000. It has sold goods for cash to Mr. Peter for Rs. 2,000 and Mr. Ali for Rs. 4,000. It has also paid Rs. 300 for electricity charges, Rs. 1,000 for salaries, and Rs. 500 for rent. From the above information, list out the assets, liabilities, incomes and expenses.

Assets :

.....

Liabilities :

.....

Incomes :

.....

Expenses :

.....

3.3 ACCOUNTING PRINCIPLES

Accounting is a system evolved to achieve a set of objectives as stated in Unit 1.2. The objectives identify the goals and purposes of financial record keeping and reporting. In order to achieve the goals, we need a set of rules or guidelines. These guidelines are termed here as ‘Basic Accounting Concepts’. The term ‘concept’ means an idea or thought. Basic accounting concepts are the fundamental ideas or basic assumptions underlying the theory and practice of financial accounting. These concepts are also termed as ‘Generally Accepted Accounting Principles’. These are the broad working rules of accounting activity, developed and accepted by the accounting profession. They are evolved (and are still evolving) over a period in response to the changing business environment and the specific needs of the users of accounting information.

The concepts guide the identification of events and transactions to be accounted for, their measurement and recording, and the method of summarising and reporting to interested parties. The concepts, thus, help in bringing about uniformity in the practice accounting.

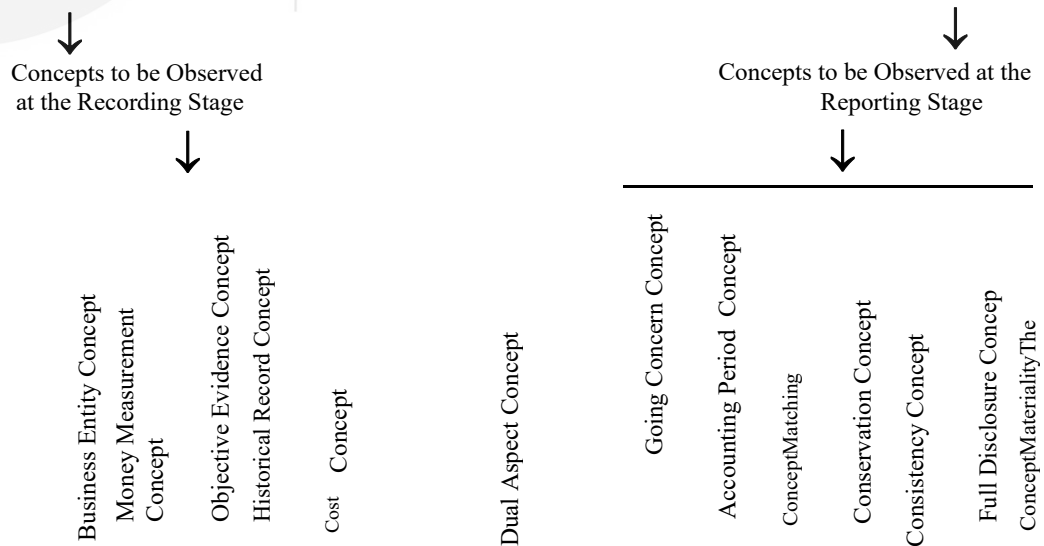
An indepth understanding of these concepts will place the student in a better position to appreciate accounting system. Of course, it may be difficult to comprehend all these concepts at a stretch. We, therefore, advise you to revisit these concepts, after giving at least one reading of this course material.

These concepts may be classified into two broad groups:

- i) concepts to be observed at the recording stage i.e., while recording the transactions, and
- ii) concepts to be observed at the reporting stage, i.e., at the time of preparing the final accounts.

It must, however, be remembered that some of them are overlapping and even contradictory. They are listed out in Chart 3.1.

Chart 3.1
ACCOUNTING CONCEPTS



3.3.1 Concepts to be Observed at the Recording Stage

The following concepts will guide us in identifying, measuring and recording transactions.

Business Entity Concept

Business entity means a unit of organised business activity. In that sense, a provision store, a cloth dealer, an industrial establishment or electricity supply undertaking, a bank, a school, a hospital, etc. are all business entities.

From the accounting point of view, every business enterprise is an entity separate and distinct from its proprietor(s)/owner(s). The accounting system gives information only about the business and not about its owner(s). In other words, we record those transactions in the books of account which relate only to the business. The owner's personal affairs (his expenditure on housing, food, clothing, etc.) will not appear in the books of account of his business. However, when personal expenditure of the owner is met from business funds it shall also be recorded in the business books. It will be recorded as drawings by the proprietor and not as business expenditure.

Another implication of business entity concept is that the owner of business is to be treated as a creditor who also has a claim over the assets of the business. As such, the amount invested by him (capital) is regarded as a liability for the business.

The business entity concept is applicable to all forms of business organisations. This distinction can be easily maintained in the case of a limited company because the company has a legal entity of its own. But such distinction becomes difficult in case of a sole proprietorship or partnership because in the eyes of the law, the partner or the sole proprietor are not considered separate entities. They are personally liable for all business transactions. But, for accounting purposes, they are to be treated as separate entities. This enables them to ascertain the profit or loss of business more conveniently and accurately.

Money Measurement Concept

Usually, business deals in a variety of items having different physical units such as kilograms, quintals, tons, metres, litres, etc. If the sales and purchases of different items are recorded in terms of their physical units, adding them together will pose problems. But, if these are recorded in a common denomination, their total becomes homogeneous and meaningful. Therefore, we need a common unit of measurement. Money does this function. It is adopted as the common measuring unit for the purpose of accounting. All recording, therefore, is done in terms of the standard currency of the country where business is set up. For example, in India, it is done in terms of Rupees, in USA it is done in terms of US Dollars, and so on.

Another implication of money measurement concept is that only those transactions and events are to be recorded in the books of account which can be expressed in terms of money such as purchases, sales, payment of salaries, goods lost in accident, etc., other happenings (non- monetary) like death of an efficient manager or the appointment of an accountant, howsoever important they may be, are not recorded in the books of account. This is because their effect is not measurable of quantifiable in terms of money.

This approach has its own drawbacks. The value of money changes over a period of time. The value of rupee today is much less than what it was in 1961. Such a change is nowhere reflected in accounts. This is the reason why the accounting data does not reflect the true and fair view of the affairs of the business.

Hence, now-a-days, it is considered desirable to provide additional data showing the effect of changes in the price level on the reported income and the assets and liabilities of the business.

Check Your Progress B

1. Mr. Ghansyامل carries on ready made garments business. A few transactions are given below. Identify the transactions to be recorded in the books of his business.
 - a) Purchased a typewriter for Rs. 6,000 for office use.
 - b) Paid salary to the office typist at Rs. 350 per month.
 - c) Bought a show case for Rs. 2,000.
 - d) Sold old domestic furniture for Rs. 500.
 - e) Purchased cloth for garments for Rs. 10,000.
 - f) A shirt worth Rs. 250 is taken home for his son.
 - g) Entered into an agreement to rent a shop in Sadar Bazar.
 - h) Paid Salaries to his salesmen, Rs. 1,000.
 - i) Paid Salary to his domestic servant, Rs. 100.
 - j) Appointed Satish as an assistant in the shop.
 - k) Borrowed Rs. 5,000 from Mr. Dyanchand for business purpose.
 - l) Mr. Rakesh, one of the salesmen, met with an accident.

2. Present the following in the form of an Accounting Equation.

| | |
|-----------|------------|
| Machinery | Rs. 20,000 |
| Cash | Rs. 5,000 |
| Capital | Rs. 20,000 |
| Creditors | Rs. 5,000 |

3. The assets and liabilities of Rupak Store are given below. Find out the amount of capital.

Cash Rs. 1,800; Stock Rs. 3,000; Debtors Rs. 2,000;

Furniture Rs. 1,200; Creditors Rs. 2,500; Wages payable Rs. 500

Objective Evidence Concept

The term objectivity refers to being free from bias or free from subjectivity.

Accounting measurements are to be unbiased and verifiable independently. For

this purpose, all accounting transactions should be evidenced and supported by documents such as bills, invoices, receipts, cash memos, etc. These supporting documents (vouchers) form the basis for making entries in the books of account and for their verification by auditors afterwards. As for the items like depreciation and the provision for doubtful debts where no documentary evidence is available, the policy statements made by management are treated as the necessary evidence.

Historical Record Concept

You know that after identifying the transactions and measuring them in terms of money, we record them in the books of account. According to the historical record concept, we record only those transactions which have actually taken place and not those which may take place (future transactions). It is because accounting record presupposes that the transactions are to be identified and objectively evidenced. This is possible only in the case of past (actually happened) transactions. The future transactions can hardly be identified and measured accurately. You also know that all transactions are to be recorded in chronological (datewise) order. This leads to the preparation of a historical record of all transactions. It also implies that we simply record the facts and nothing else.

Cost Concept

Business activity, in essence, is an exchange of money. The price paid (or agreed to be paid in case of a credit transaction) at the time of purchase is called cost. According to the cost concept, all assets are recorded in books at their original purchase price. This cost also forms an appropriate basis for all subsequent accounting for the assets. For example, if the business buys a machine for Rs. 80,000 it would be recorded in books at Rs. 80,000. In case its market value increases later on to Rs. 1,00,000 (or decreases to Rs. 50,000) it will continue to be shown at Rs. 80,000 and not at its market value.

This does not mean, however, that the asset will always be shown at cost. You know that with passage of time, the value of an asset decreases. Hence it may systematically be reduced from year to year by charging depreciation and the asset be shown in the balance sheet at the depreciated value. The depreciation is usually charged as a fixed percentage of cost. It bears no relationship with changes in its market value

Check Your Progress C

- 1) Mr. Vinod Pandey started business. State which of the following transactions, and with what amount, are to be recorded in the books of his business.
 - a) He purchased a machine from Bombay for Rs. 10,000. He paid for railway freight Rs.200 and total transport Rs 100.
 - b) He sold goods worth Rs. 1,000 to Mr. Rakesh.
 - c) Mr. Ramana, a friend of Mr. Pandey promised to purchase goods worthRs. 10,000 after three months.
 - d) He purchased a building for his business from his friend for Rs. 25,000. Its market value is Rs. 30,000.
 - e) Due to scarcity of raw materials, he paid Rs. 5,000 for materials worth Rs. 3,000.

Dual Aspect Concept

This is the basic aspect of accounting. According to this concept, every business transaction has a two-fold effect. In commercial context, it is a famous dictum that “every receiver is also a giver and every giver is also a receiver”. For example, if you purchase a machine for Rs. 8,000 you receive machine on the one hand and give Rs. 8,000 on the other. Thus, this transaction has a two-fold effect i.e., (i) increase in one asset and (ii) decrease in another. Similarly, if you buy goods worth Rs. 500 on credit it will increase an asset (stock of goods) on the one hand and increase a liability (creditors) on the other. Thus, every business transaction involves two aspects: (i) the receiving aspect, and (ii) the giving aspect. In case of the first example you find that the receiving aspect is machinery and the giving aspect is cash. In the second example the receiving aspect is goods and the giving aspect is the creditor. If complete record of transactions is to be made, it would be necessary to record both the aspects in books of account. This principle is the core of double entry book-keeping and if this is strictly followed, it is called ‘Double Entry System of Book-keeping’ about which you will learn in detail later.

Let us understand another accounting implication of the dual aspect concept. To start with, the initial funds (capital) required by the business are contributed by the owner. If necessary, additional funds are provided by the outsiders (creditors). As per the dual aspect concept all these receipts create corresponding obligations for their repayment. In other words, a contribution to the business, either in cash or kind, not only increases its resources (assets), but also its obligations (liabilities/equities) correspondingly. Thus, at any given point of time, the total assets and the total liabilities must be equal.

This equality is called ‘balance sheet equation’ or ‘accounting equation’. It is stated as under:

$$\text{Liabilities (Equities)} = \text{Assets}$$

or

$$\text{Capital} + \text{Outside Liabilities} = \text{Assets}$$

The term ‘assets’ denotes the resources (property) owned by the business while the term ‘equities’ denotes the claims of various parties against the business

assets. Equities are of two types: (1) owners' equity, and (ii) outsiders' equity. Owners' equity called capital is the claim of the owners against the assets of the business. Outsiders' equity called liabilities is the claim of outside parties like creditors, bank, etc. against the assets of the business. Thus, all assets of the business are claimed either by the owners or by the outsiders. Hence, the total assets of a business will always be equal to its liabilities.

When various business transactions take place, they effect the assets and liabilities in such a way that this equality is always maintained. Let us take a few transactions and see how this equality is maintained.

1. **Mr. Gyan Chand started business with Rs. 50,000 cash.** The cash received by the business is its asset. According to the business entity concept, business and the owner are two separate entities. Hence, the capital contributed by Mr. Gyan Chand is a liability to the business.

Thus Capital = Assets

Rs. 50,000 = Rs. 50,000 (cash)

2. **He purchased goods on credit from Chakravarthy for Rs. 5,000.** This increases an asset (stock of goods) on the one hand and a liability (creditors) on the other. Now the equation will be

Capital + Liabilities = Assets

Rs. 50,000 + Rs. 5,000 = Rs. 5,000 + Rs. 50,000

Capital Creditors Stock Cash

3. **He purchased furniture worth Rs. 10,000 and paid cash.** This increases one asset (furniture) and decreases another asset (cash). Now the equation will be:

Capital + Liabilities = Assets

Rs. 50,000 + Rs. 5,000 = Rs. 10,000 + Rs. 5,000 + Rs. 40,000

Capital Creditors Furniture Stock Cash

This equation can be presented in the form of a Balance Sheet (a statement of assets and liabilities) as follows:

Gyan Chand's Balance Sheet

| Capital and Liabilities | Rs. | Assets | Rs. |
|------------------------------|--------|----------------|--------|
| Capital | 50,000 | Furniture | 10,000 |
| Creditors (Mr. Chakravarthy) | 5,000 | Stock of goods | 5,000 |
| | | Cash | 40,000 |
| | 55,000 | | 55,000 |

Note that the totals on both sides of the Balance Sheet are equal. This equality remains valid irrespective of the number of transactions and the items affected thereby. It is so because of their dual effect on the assets and liabilities of the business.

Check Your Progress D

1. Find out the missing amounts on the basis of the accounting equation:
Capital + Liabilities = Assets
 - a) Rs. 10,000 + Rs. 15,000 = Rs
 - b) Rs. 25,000 + Rs..... = Rs. 60,000
 - c) Rs..... + Rs. 30,000 = Rs. 50,000
2. Show the dual effect of the following business transaction on assets and liabilities of a business unit.
 - a) Purchased goods for cash for Rs. 500
 - b) Purchased goods on credit for Rs. 800
 - c) Paid Rs. 300 to a creditor
 - d) Received Rs. 500 from a debtor

3.3.2 Concepts to be Observed at the Reporting Stage

The following concepts have to be kept in mind at the time of preparing the final accounts. Let us discuss them one by one:

- i) Going concern concept
- ii) Accounting period concept
- iii) Matching concept
- iv) Conservatism concept
- v) Consistency concept
- vi) Full disclosure concept
- vii) Materiality concept

Going Concern Concept

Normally, the business is started with the intention of continuing it indefinitely or at least for the foreseeable future. The investors lend money and the creditors supply goods and services with the expectation that the enterprise would continue for long. Unless there is a strong evidence to the contrary, the enterprise is normally viewed as a going (continuing) concern. Hence, financial statements are prepared on a going concern basis and not on liquidation (closure) basis.

Certain expenses like rent, repairs, etc., give benefits for a short period, say less than one year. But the benefit of some other expenditure like purchase of a building, machinery, etc., is spread over a longer period. The expenditure whose benefit is limited to one accounting year is fully charged to the Profit and Loss Account of the year. But the cost of the items whose benefit is available for a number of accounting years, their cost must be spread over a number of years. Hence, only a portion of such expenditure is charged to the Profit and Loss Account every year. The balance is shown in the Balance Sheet as

an asset. Let us take an example. Suppose a firm purchased a delivery van for Rs. 60,000 and its expected life is 10 years. It means the business will use the van for a period of 10 years. So, the accountant has to spread the cost of the van over 10 years. He would charge Rs. 6,000 (1/10 of its cost) every year to the Profit and Loss Account in the form of depreciation, and show the balance in the Balance Sheet as an asset. This is based on the assumption that the business will continue for long and the asset will be used for its expected life. Thus, this concept is regarded as the basic assumption in accounting according to which the fixed assets are valued at historical cost less depreciation and not at its realisable value.

Accounting Period Concept

You know the going concern concept assumes that the business will continue for a long period, almost indefinitely. But the businessmen cannot postpone the preparation of financial statements indefinitely. Therefore, he prepares them periodically. This will also enable other interested parties such as owners, investors, creditors, tax-authorities to make periodic assessment of its performance. So, the life of the business enterprise is divided into what are called accounting periods'. The profit or loss and the financial position at the end of each such accounting period is regularly assessed.

Conventionally, duration of the accounting period is twelve months. It is called an 'accounting year'. Accounting year can be a calendar year i.e., January 1 to December 31 or any other period of twelve months, say, April 1 to March 31 or Dewali to Dewali.

Normally, the final accounts are prepared at the end of each accounting year. The Profit and Loss Account is prepared for the year so as to ascertain the profit earned or loss incurred during that year, and the balance sheet is prepared as at the end of the year, so as to show the financial position as on that date. However, for internal management purposes, accounts can be prepared even for shorter periods, say monthly, quarterly or half yearly.

Check Your Progress D

1. What is the assumption under Going Concern Concept?

.....

2. What is the accounting implication of Going Concern Concept?

.....

3. What is the significance of an Accounting Period?

.....

4. What is the purpose of preparing the Profit and Loss Account?

.....
.....
.....
.....

5. What does Balance Sheet reveal?

.....
.....
.....
.....

Matching Concept

This is also called ‘Matching of Costs against Revenues Concept’. To work out profit or loss of an accounting year, it is necessary to bring together all revenues and costs pertaining to that accounting year. In other words, expenses incurred in an accounting year should be matched with the revenues earned during that year. The crux of the problem, therefore, is that appropriate costs must be matched against appropriate revenues. For this purpose, first we have to recognise the inflows (revenues) during an accounting period and the costs incurred in securing those inflows. Then, the sum of the costs should be deducted from the sum of the revenues to arrive at the net result of that period. Let us now understand how to recognise the revenues and costs in relation to an accounting period. For this purpose, the following rules are followed :

The Timing of Revenue Recognition

Revenue is recognised in the period in which it is earned or realised. The revenue recognition is primarily based on realisation principle which clearly states that in identifying revenues with a specific period one must look to when the various transactions occurred rather than to the period in which cash inflow occurred. Thus,

- i) In case of the sale of goods (or services) revenue is regarded as realised when sales actually take place and not when cash is received. In other words, credit sales are treated as revenue when sales are made and not when money is received from the debtors.
- ii) Income such as rent, interest, commission etc. are recognised on a time basis. The revenue from such items is taken to the Profit and Loss Account of the year during which it is earned. Let us assume that the business purchased some government securities on October 1, 2018 for Rs. 20,000 carrying interest at 12 per cent. The interest is payable half yearly on April 1 and October 1 every year. The first instalment of interest (Rs. 1,200) is received on April 1, 2019. The Profit and Loss Account is being prepared for the year 2018 (January 1, 2018 to December 31, 2018). The interest amounting to Rs. 600 earned during. October 1 to December 31 must be shown as the income from interest on investments in the Profit and Loss Account for 2018 though the amount has not been received in 2018.

The Timing of Costs Recognition

The matching principle holds that the expenses should be recognised in the same period as the associated revenues. Thus,

- i) The cost of goods have to be matched with their sales revenue. This means that while preparing the Profit and Loss Account for a particular year, you should not take the cost of all the goods produced during that year, but consider only the cost of goods that have actually been sold during that year. The cost of goods sold is arrived at by deducting the cost of closing stock from the cost of goods produced.
- ii) Expenses such as salaries, wages, interest, rent, insurance, etc., are recognised on time basis. In other words, they are related to the year in which the service is obtained or the expense is incurred, whether paid immediately or payable at a later date.
- iii) Costs like depreciation on fixed assets are also allocated on time basis.

The Matching Concept thus has the following implications for the ascertainment of profit or loss during a particular period.

- 1. We should ensure that costs should relate to the same accounting period as the revenues. For example, when we prepare the Profit and Loss Account for 2017, we shall take into account all those incomes that were earned during 2017, and similarly consider only those costs which were incurred in 2017. Any costs or incomes which relate to 2018 shall be excluded.
- 2. We should ensure that all costs incurred during the accounting period (whether paid or not) and all revenues earned during that year (whether received or not) are fully taken into account.
- 3. We should consider only those costs which relate to the revenue taken into account. This is the reason why we consider only the cost of goods sold, and not the cost of goods produced during that period.

Check Your Progress E

- 1. What is the main implication of the Matching Concept?
.....
.....
.....
- 2. Name three items of revenues.
.....
.....
.....

3. Name three items of costs.

.....
.....
.....
.....

4. Fill in the blanks.

- i) Profit is the excess of revenue over
- ii) Costs incurred during an accounting year should be matched against
- iii) Revenue realisation does not mean that revenue must be realised in.....
- iv) Cost of goods are matched with their sales revenue.....?
- v) Revenue such as interest, commission, etc., are recognised as earned with reference to
- i) Expenses such as wages, rent, etc., are recognised onbasis.

Conservatism Concept

This is also known as Prudence Concept understatement of assets or revenues, and overstatement of liabilities or costs. This is in accordance with the traditional view which states ‘anticipate no profits but anticipate all losses’. In other words, you should account for profits only when they are actually realised. But in case of losses, you should take into account even those losses which may be a remote possibility. This is why closing stock is valued at cost price or market price whichever is lower. Provision for doubtful debts and provision for discounts on debtors are also made according to this concept.

Consistency Concept

The principle of consistency means ‘conformity from period to period with unchanging policies and procedures’. It means that accounting method adopted should not be changed from year to year. For example, the principle of valuing closing stock ‘at cost price or market price whichever is lower’ should be followed year after year. Similarly, if depreciation on fixed assets is provided on straight line basis, it should be followed consistently year after year. Consistency eliminates personal bias and helps in achieving comparable results.

However, consistency does not prohibit change. Desirable changes are always welcome. But such changes should be completely disclosed while presenting the financial statements.

Full Disclosure Concept

You know the financial statements are the basic means of communicating financial information to all interested parties. These statements are the only source for assessing the performance of the enterprise for investors, lenders, suppliers, and others. Therefore, financial statements and their accompanying foot-notes should completely disclose all relevant information of a material nature which relate to the profit and loss and the financial position of the business. This enables the users of the financial statements to make correct assessment about the profitability and financial soundness of the enterprise. It is therefore, necessary that the disclosure should be full, fair and adequate.

Materiality Concept

This concept is closely related to the Full Disclosure Concept. Full disclosure does not mean that everything should be disclosed. It only means that all relevant and material information must be disclosed. Materiality primarily relates to the relevance and reliability of information. An item is considered material if there is a reasonable expectation that the knowledge of it would influence the decision of the users of the financial statements. All such material information should be disclosed through the financial statements and the accompanying notes. For example, commission paid to sole selling agents, if any, should be disclosed separately in the Profit and Loss Account. Similarly, if there is a change in the method or rate of depreciation, this fact must be duly reported in the financial statements.

A strict adherence to accounting principles is not required for items of little significance or of non-material nature. For example, erasers, pencils, scales, etc., are used for a long period, but they are not treated as assets. They are treated as expenses. This does not affect the amount of profit or loss materially.

Similarly, while showing the amounts of various items in the financial statements, they can be approximated up to paise. Even if they are shown to the nearest rupee or hundreds, there may not be any material effect. For example, if an amount of Rs. 1,45,923.28 is shown as Rs. 1,45,900 it does not make much difference for assessment of the performance of the enterprise.

However, there are no specific rules for ascertaining material or non-material items, It is just a matter of personal judgement.

Check Your Progress F

1. What is the aim of Conservatism Concept ?

.....

2. What do you mean by the Principle of Consistency?

.....

3. Why is full disclosure of relevant information considered necessary?

.....
.....
.....

4. How do you make a distinction between material and non-material items?

.....
.....
.....

3.4 SYSTEMS OF BOOK-KEEPING

Book-keeping as explained earlier is the art of recording business transactions in a systematic manner. Broadly, there are two systems of book-keeping:

- i) Double Entry System, and
- ii) Single Entry System.

3.4.1 Double Entry System

Under the dual aspect concept you learnt that every business transaction has two aspects: (i) the receiving aspect, and (ii) the giving aspect. For example, when you purchase goods for cash, goods come in and cash goes out. Thus, a transaction affects two items (also called accounts) at the same time. When you record the transaction in the books of account of a business, it would be better if you record the effects relating to both the items. In the above example, the items affected are goods and cash, stock of goods increases and cash decreases. So, we should record the increase in stock of goods and also the decrease in cash. This involves two entries, one in Goods Account and the other in Cash Account. This method of recording business transactions is called 'Double Entry System'. It recognises and record both the aspects of every transactions. According to this system, the account which involves receiving aspect is debited and the account which involves giving aspect is credited. Thus, for every debit there will be an equivalent credit. For this purpose certain rules have been framed. These are discussed in Unit 5.

Advantages of Double Entry System

This system has the following advantages:

- i) It provides complete and reliable record of all business transactions because it records both effects.
- ii) It supplies full information about the incomes and expenses, assets and liabilities of the business. It, thus, helps the management in taking appropriate decisions.
- iii) The arithmetical accuracy of the books of account can be ascertained by preparing a trial balance.
- iv) The financial result of the operations of the business i.e., profit or loss, can be easily ascertained.

- v) The financial position of the business can also be ascertained at any point of time.

3.4.2 Single Entry System

Single entry system does not mean that only one aspect of a transaction is recorded. An incomplete or defective double entry system is generally called single entry system. Under this system, all transactions are not recorded and all accounting records are not maintained. The two aspects of a transaction are recorded in certain cases, but in certain cases only one aspect is recorded. Certain transactions are ignored, they are not even recorded. The single entry system is thus a mixture of double entry, single entry and no entry. The accounts maintained under this system are incomplete and unsystematic and, therefore, not reliable. The main defect of this system is that the arithmetical accuracy of the books of account cannot be checked, because a trial balance cannot be prepared. The profit and loss account and balance sheet also cannot be prepared. This system is normally followed by small business firms.

3.5 LET US SUM UP

1. There are number of terms commonly used in accounting. The understanding of these terms is necessary for preparing accounting records.
2. Accounting involves identifying, measuring, recording, summarising and communicating events and transactions. For this purpose, certain guidelines or ground rules are necessary. Basic accounting concepts or generally accepted accounting principles guide the accountant in record keeping and reporting.
3. Certain principles or concepts have been agreed upon. Some are observed at the recording stage while others are relevant at the reporting stage.
4. According to business entity concept, the business enterprise and its proprietor are treated as two separate entities, distinct from each other.
5. According to money measurement concept, all the transactions should be recorded in terms of the standard currency of the country.
6. According to the historical record concept, only those transactions which have actually taken place should be recorded in the order of their occurrence i.e., date-wise.
7. The cost concept states that the amount actually received or paid for any goods or service should be recorded and not its value.
8. As per the dual aspect concept, every transaction has two aspects. Both the aspects are to be recorded in the books of account.
9. Double entry is a system which recognises and records both aspects of a transaction.
10. Single entry system is an incomplete record of business transactions.
11. For ascertaining the profit and loss and the financial position of the business, two financial statements are prepared: (i) Profit and Loss Account, and (ii) Balance Sheet. These are called final accounts.

12. Final accounts are prepared at the end of each accounting year.
13. While preparing the final accounts, nine basic accounting concepts have to be observed.
14. According to the Going Concern Concept, the firm should be considered as a continuing unit and not as one closing down.
15. According to the Matching Concept, appropriate costs have to be matched against the appropriate revenues for the accounting period.
16. The Concept of Conservatism implies that while calculating the profit for an accounting period, take all losses into account but include only those incomes which have actually arisen.
17. The Concept of Consistency implies that there should be consistency in all accounting methods followed from period to period so as to ensure possibility of meaningful comparisons.
18. According to Full Disclosure Concept financial reports should disclose fully all relevant information of material nature, so that the users of those reports can draw rational conclusions about the enterprise.
19. The Materiality Concept implies that while measuring income of a business for an accounting period the non-material facts can be ignored.
20. There are two bases of accounting viz., cash basis and accrual basis. The accrual basis of accounting is considered more rational.

3.6 KEY WORDS

Account: A classified statement of transactions relating to a person or a thing or any other subject.

Assets: Anything which has economic value.

Business Entity: A business enterprise.

Capital: Owner's investment or equity in a firm.

Cash Discount: An allowance given by the creditor to the debtor on the amount due for prompt payment.

Creditor: One to whom the business owes some amount.

Debtor: One who owes some amount to the business.

Drawings: Amount withdrawn by the owner from the business for personal use.

Equity: The claim or right over the assets of the firm. It includes both the owner's and the creditor's claims.

Expenditure: Spending of money or incurring a liability for some benefit or service received by the business.

Gain: Profit arising from peripheral or incidental transactions.

Goods: Goods are the mercantile things in which the business deals.

Income: It is the amount earned through business operations.

Revenue: Amount realised for the goods sold or services rendered.

Stock: Raw materials, semi-finished goods and finished goods lying in stores.

Trade Discount: An allowance given by the seller to the buyer on the list price at the time of sale.

Transaction: Transfer of money or money's worth between two entities is called a transaction.

3.7 SOME USEFUL BOOKS

Bierman, Harold & Drebin, Allan R., Financial Accounting: An Introduction (Philadelphia: W.B. Saunders Company, 1998)

Briston, R.J., Introduction to Accounting and Finance. (London: The Macmillan Press Ltd., 1991) Part-B. Fank Wood : Book-Keeping and Accounts. (London : Pitman, 1996)

Maheshwari, SN., Principles and Practice of Accountancy, Part I. (New Delhi : Arya Book Depot, 2018)

Paul V.A. & Korlahalli, J.S., Principle and Practice of Accountancy. (New Delhi : S. Chand & Co., 2018)

3.8 ANSWERS TO CHECK YOUR PROGRESS

- A
1. (i) Debtor (ii) Creditor (iii) Goods (iv) Assets (v) Personal use
(vi) Unrealisable (vii) Capital (viii) Account
 2. (i) Goods (ii) Asset (iii) Asset (iv) Goods (v) Goods
 3. Assets :Delivery van, furniture, typewriter, cash in hand, stock of goods not yet sold.
Liabilities: Bank loan. M/s. Gurucharan Singh & Co., M/s. Lalwani Traders.
Income : Amounts received from Mr. Peter and Mr. Ali.
Expenses : Account books and stationery. electricity charges, salaries and rent.
- B
1. Except d, g, i, j and l all other transactions are to be recorded.
 2. $C+L= A$
Capital: Rs. 20,000 + Creditors Rs. 5,000 = Machinery Rs. 20,000 + Cash Rs. 5,000
 3. $Capital = 1800+3000+2000+1200-2500-500 = Rs. 5000$
- C. Except 'c' all other transactions have to be recorded in the business books with the following amounts:

- a) Rs. 10,300 b) Rs. 1,000
 - d) Rs. 25,000 e) Rs. 5,000
- D 1.a) Rs. 25,000 b) Rs. 35,000 c) Rs. 20,000.
2. a) Stock increases and cash decreases
- b) Stock increases and creditors increase
- c) Cash decreases and creditors decrease
- d) Cash increases and debtors decrease

3.9 TERMINAL QUESTIONS/EXERCISES

1. What do you mean by double entry system? Distinguish it from single entry system.
2. What do you mean by accounting concepts? Briefly explain the accounting concepts which guide the accountant at the recording stage.
3. Krishna has invested a capital of Rs. 80,000 on June 30, 2018. He purchased goods from Suresh on credit, amounting to Rs. 20,000. Find out the value of assets. (Ans: Rs. 1,00,000)
4. The assets of a business on December 31, 2018 are Rs. 50,000 and capital is Rs. 30,000. Find out the amount of liabilities. (Ans: Rs. 20,000)
5. The following is the assets and liabilities position of Srinivasa Traders on October 1, 2018:
Assets: Cash Balance Rs. 3,000; Furniture Rs. 5,000;
Building Rs. 50,000; Debtors Rs. 22,000.
Liabilities: Bank Loan Rs. 10,000; Creditors Rs. 15,000.
Find out the amount of capital on that date. (Ans: Rs. 55,000).
6. Write short notes on the following:
 - a) Going Concern Concept
 - b) Accounting Period Concept
7. What do you understand by matching costs against revenue? Explain briefly the importance of the Matching Concept.
8. Explain briefly the following concepts:
 - a) Conservatism
 - b) Consistency

- c) Full Disclosure
 - d) Materiality
9. Distinguish between cash basis and accrual basis of accounting with examples.
10. Explain briefly the main accounting concepts to be observed at the time of preparing final accounts.

Note : These questions will help you to understand the unit better. Try to write answers for them. But, do not submit your answers to the University for assessment. These are for your own practice only.



ignou
THE PEOPLE'S
UNIVERSITY

UNIT 4 ACCOUNTING STANDARDS

Structure

- 4.0 Objectives
- 4.1 Concept of Accounting Standards
- 4.2 Benefits of Accounting Standards
- 4.3 Procedure for Issuing AS in India
- 4.4 Salient Features of First Time Adoption of Indian Accounting Standards (Ind-AS):101
- 4.5 International Financial Reporting Standards
- 4.6 Need and Procedure of IFRS
- 4.7 Convergence to IFRS
- 4.8 Distinction between Indian AS and International AS
- 4.9 Measurement of Business Income
- 4.10 Objectives of Measurement of Business Income
- 4.11 Approaches for Measuring Income
- 4.12 Accounting Concept that is relevant to Measurement of Business Income-Realization Concept
- 4.13 Let Us Sum Up
- 4.14 Key Words
- 4.15 Some Useful Books
- 4.16 Terminal Questions

4.0 OBJECTIVES

After studying this unit, you should be able to:

- explain the concept of the accounting standards;
- discuss the benefits of accounting standards;
- discuss the procedures of issuing accounting Standards in India;
- describe International Financial Reporting Standards, GAAP, IAS etc;
- develop the insights about the need and procedure of issuing IFRS;
- understand how Indian economy is converging towards implementing IFRS.
- make comparison between Indian AS and International AS;
- describe the procedure for measuring business income;
- explain the accounting concepts that are relevant to measurement of business income; and
- state the objectives of measurement of business income of business income.

4.1 CONCEPT OF ACCOUNTING STANDARDS

Accounting is the language of business. All financial information (i.e. nature of financial activities, financial position, financial results, present trend and further

prospects etc.) are available through accounting. The so-called financial information is communicated to the users (both internal as well as external) of accounting information by preparing and presenting the financial statements. As such, it becomes necessary to develop some Generally Accepted Accounting Principles (GAAP) while preparing the financial statements by which the language of the business can be communicated to the users.

Definition

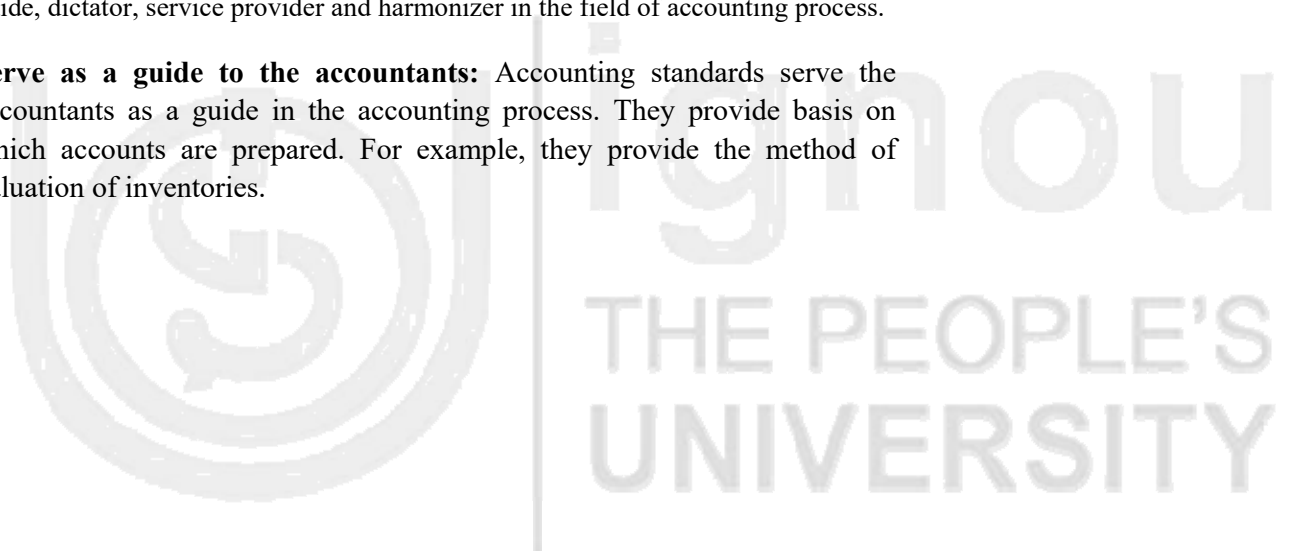
In the words of Kohler, an accounting standard may be defined as ‘a code of conduct imposed on accountants by custom, law or professional body.’

Thus, accounting standards may be defined as the accounting principles and rules which are to be followed for various accounting treatments while preparing financial statements on uniform basis and which will reveal the same meaning to all the interested groups who will use the same. Thus, the Standards are considered as a guide for maintaining and preparing accounts.

Nature of Accounting Standards

On the basis of forgoing discussion, we can say that accounting standards are guide, dictator, service provider and harmonizer in the field of accounting process.

Serve as a guide to the accountants: Accounting standards serve the accountants as a guide in the accounting process. They provide basis on which accounts are prepared. For example, they provide the method of valuation of inventories.



Act as a dictator: Accounting standards act as a dictator in the field of accounting. Like a dictator, in some areas accountants have no choice of their own but to opt for practices other than those stated in the accounting standards. For example, Cash Flow Statement should be prepared in the format prescribed by accounting standard.

Serve as a service provider: Accounting standards comprise the scope of accounting by defining certain terms, presenting the accounting issues, specifying standards, explaining numerous disclosures and implementation date. Thus, accounting standards are descriptive in nature and serve as a service provider.

Act as a harmonizer: Accounting standards are not biased and bring uniformity in accounting methods. They remove the effect of diverse accounting practices and policies. On many occasions, accounting standards develop and provide solutions to specific accounting issues. It is thus, clear that whenever there is any conflict on accounting issues, accounting standards act as harmonizer and facilitate solutions for accountants.

4.2 BENEFITS OF ACCOUNTING STANDARDS

There are many benefits of accounting standards. Let us discuss the main benefits of Accounting Standards one by one.

- 1) **Standardized Accounting:** Perhaps the most important advantage of the FASB standard setting for businesses is the uniform set of accounting principles it promotes. The FASB clearly states the generally-accepted accounting principles that businesses must follow to avoid confusion. For example, the FASB prevents businesses from using one method for calculating inventory at the beginning of a fiscal year and finishing the year with another method. Without the accounting standards set forth by the FASB, businesses could use accounting methods that portray financial data inaccurately to investors.
- 2) **Problem Identification:** The FASB standard setting provides a framework upon which potential accounting problems are identified and corrected. Because all businesses in the US use the same accounting principles, any problems or inadequacies in the accounting process are quickly identified and reported to the FASB. The FASB then investigates the problem and, if needed, modifies or writes a new accounting rule for the accounting process. For example, if businesses find that reporting a certain type of liability on their income statement unfairly lowers their net income, they can appeal to the FASB so that it can identify problems with the standard setting.
- 3) **Private Regulation:** The FASB is a private entity with no affiliation to the US government. Despite this, the Securities and Exchange Commission relies on the FASB to set the accounting rules that all companies in the US must follow. The SEC can technically create an accounting oversight board or government agency to set accounting rules. However, using the FASB eases the burden on the US government and lets the private sector dictate accounting rules.

- 4) **International Accounting Standard:** The FASB is advantageous because it actively promotes an internationally recognized set of accounting rules. Globalization has deeply connected foreign financial markets; a standard set of accounting rules would make financial reporting more accurate and fair between countries. One of the goals of the FASB is to make financial reporting more uniform globally with the cooperation of the International Accounting Standards Board (IASB).

4.3 PROCEDURE FOR ISSUING AS IN INDIA

There is a set procedure for issuing AS in India. Let us discuss this procedure in detail.

1) Determination of the need of an AS

First, the Accounting Standard Board determines the broad areas in which accounting standards need to be formulated.

2) Constituting Study Group

Study Group will be constituted consisting the members of the Institute of Chartered Accountants of India. The motive behind constitution of this group is to assist the accounting Standard Board in its activities.

3) Drafting the Standard

The Study Group Prepares draft of the proposed Standard. The proposed draft enlists the following areas:

- a) Objective of the standard.
- b) Scope of the Standard.
- c) Definitions of the terms used in the standard
- d) Recognition & Measurement Principles
- e) Presentation & Disclosure requirements.

4) Analyzing the Draft

ASB in this stage considers the Preliminary draft prepared by the Study Group. In case anything needs to be revised than Accounting Standard Board takes the following steps.

- a) ASB makes the revision
- b) ASB refers the same to the study Group

5) Circulation of the Draft

In this step, the ASB circulates the AS draft to the council members of the Institute of Chartered Accountants of India and the following specifies bodies for their comments.

- a) The Institute of Works & Cost Accountants of India
- b) The Institute of Company Secretaries of India.
- c) Ministry of Company Affairs.

- d) Comptroller & Auditor General of India
- e) Central Board of Direct Taxes
- f) Standing Committee of Public Enterprises
- g) Reserve Bank of India
- h) Indian Banks Association.
- i) Securities & Exchange Board of India.
- j) Associated Chamber of Commerce & Industry, Confederation of Indian Industry and Federation of Indian Chambers of Commerce & Industry.
- k) Any other body considered relevant by the ASB.

6) Holding Discussion and Finalizing Exposure Draft

ASB holds meeting with the representatives of above mentioned bodies for the purpose of determining their views on the Draft Accounting Standard. Based on analyses of the discussion, ASB finalizes the exposure draft of proposed accounting standards.

7) Circulation of Exposure Draft

The exposure Draft of the proposed standards is issued for comments the members of the ICAI and the public.

8) Finalizing the Exposure Draft

Based on the comments received, the ASB finalizes the draft of the proposed standards. Finally ASB submits the same to the council of the ICAI.

9) Modifying & Issuing the Accounting Standard

The council of the ICAI then considers the finalized draft standard and if necessary modifies the same in consultation with the ASB. The ICAI then issues the Accounting Standard after modification if any on the relevant subject.

**4.4 SALIENT FEATURES OF FIRST TIME
ADOPTION OF INDIAN ACCOUNTING
STANDARDS (Ind-AS):101**

Ind-AS 101 lays out the accounting principles for first-time adoption of Ind-AS. It prescribes the various requirements to be fulfilled during the transition period when a company adopts Ind-AS for the first time, i.e., when it moves from making the financial statements in accordance with Accounting Standards (Indian GAAP) to make them in accordance with Ind-AS.

Conceptually, the accounting under Ind-AS should be applied retrospectively at the time of transition of companies from applying Accounting Standards (Indian GAAP) to Ind-AS. However, for an easy transition, Ind-AS 101 has provided some exemptions for retrospective application of Ind-AS. The exemptions are

clearly categorised into those which are mandatory in nature (i.e., cases where the company is prohibited to apply Ind-AS retrospectively) and those which are voluntary in nature (i.e., it is upto the company to apply or not to apply certain requirements of Ind-AS retrospectively).

Ind-AS 101 also lists out presentation and disclosure requirements to explain the transition to the users of financial statements. It also requires a company to explain how the transition will affect its reported balance sheet, financial performance and cash flows. It does not provide any exemption from the disclosure requirements in other Ind-AS.

Objective of Ind-AS 101

The objective of Ind-AS 101 is to ensure that the entity’s first Ind-AS Financial Statements, and its interim financial reports for the period covered by those financial statements, contain high quality information that:

1. Is transparent for users and comparable over all periods presented,
2. Provide a suitable starting point for accounting in accordance with the Indian Accounting Standards (Ind-AS), and
3. Can be generated at a cost that does not exceed benefits.

Scope of Ind-AS 101

An entity shall apply the Indian Accounting Standard-101 (first time adoption of Indian Accounting Standards) in:

- a) First Financial Statements after implementing Ind-AS.
- b) Each Interim Financial Report in accordance with Ind-AS 34 *Interim Financial Reporting* for the part of the period covered by its first Ind-AS financial Statements.

Check Your Progress A

1. Define the term ‘Accounting Standard’.
.....
.....
.....
2. What are the main objectives of accounting standards?
.....
.....
.....
3. Discuss the procedure of issuing accounting standards in India.
.....
.....
.....

4. Give any three limitations of accounting.

.....
.....
.....

4.5 INTERNATIONAL FINANCIAL REPORTING STANDARDS

Accounting provides companies, investors, regulators and others with a standardized way to describe the financial performance of an entity. Accounting standards present and prepares of financial statements with a set of rules to abide by when preparing an entity’s accounts, ensuring this standardization across the market. Companies listed on public stock exchanges are legally required to publish financial statements in accordance with the relevant accounting standards.

International Financial Reporting Standards (IFRS) is a single set of accounting standards, developed and maintained by the International Accounting Standards Board with the intention of those standards being capable of being applied on a globally consistent basis — by developed, emerging and developing economies. Thus, providing investors and other users of financial statements with the ability to compare the financial performance of publicly listed companies on a like-for-like basis with their international peers.

IFRS are now mandated for use by more than 100 countries, including the European Union and by more than two-thirds of the G20. The G20 and other international organisations have consistently supported the work of the Board and its mission of global accounting standards.

4.6 NEED AND PROCEDURE OF IFRS

With the increasing globalization of financial markets and of companies, the use of a single set of financial reporting standards across countries is viewed as having increased the comparability of financial statements across borders. It also reduces the cost of preparing the consolidated financial statements of groups made up of companies conducting business all around the world.

Financial reporting standards have been in the spotlight since the banking crisis, more specifically those requiring the measurement of financial assets and liabilities at fair value. In September 2009, G20 leaders in Pittsburgh asked the accounting standard setters IASB and, its US counterpart, the FASB to work towards a single set of high quality global accounting standards by June 2011. Convergence, however, is proving challenging and is likely to be pushed back.

International Financial Reporting Standards (IFRS) are developed through an international consultation process, the “due process”, which involves interested individuals and organisations from around the world.

The due process comprises six stages, with the Trustees of the IFRS Foundation having the opportunity to ensure compliance at various points throughout:

1. Setting the agenda
2. Planning the project
3. Developing and publishing the Discussion Paper, including public consultation
4. Developing and publishing the Exposure Draft, including public consultation
5. Developing and publishing the Standard.
6. Procedures after a Standard are issued.

The IFRS issued by IASB and the corresponding Ind- AS are given below:

| S. No. | IFRS No. | Title | Corresponding converged Ind-AS |
|---------------|-----------------|--|---------------------------------------|
| 1) | IFRS 1 | First-time Adoption of Indian Accounting Standards | Ind-AS 101 |
| 2) | IFRS 2 | Share based Payment | Ind-AS 102 |
| 2) | IFRS 3 | Business Combinations | Ind-AS 103 |
| 3) | IFRS 4 | Insurance Contracts | Ind-AS 104 |
| 4) | IFRS 5 | Non-current Assets Held for Sale and Discontinued Operations | Ind-AS 105 |
| 5) | IFRS 6 | Exploration for and Evaluation of Mineral Resources | Ind-AS 106 |
| 6) | IFRS 7 | Financial Instruments: Disclosures | Ind-AS 107 |
| 7) | IFRS 8 | Operating Segments | Ind-AS 108 |
| 8) | IFRS 9 | Financial Instruments | Exposure Draft Issued |
| 9) | IFRS 10 | Consolidated Financial Statements | Exposure Draft Issued |
| 10) | IFRS 11 | Joint Agreements | Exposure Draft Issued |
| 11) | IFRS 12 | Disclosure of Interests in Other Entities | Exposure Draft Issued |
| 12) | IFRS 13 | Fair Value Measurement | Exposure Draft Issued |

4.8 CONVERGENCE TO IFRS

For a country, there are two alternatives available for compliance and implementation of the IFRS, which are (i) Adoption, (ii) Convergence

Adoption: It means acceptance of IFRS in its original form. If a country adopts IFRS in its original form, then it is not allowed to make any change in the language or format of the IFRS formed by IASB.

Convergence: It means implementing IFRS with modification wherever necessary so as to suit the requirements of a particular country.

India has decided to converge its existing accounting standards to IFRS. In India, the converged accounting standards are called Ind-AS



Challenges to convergence

1. As Ind-AS are essentially based on the concept of fair value measurement of assets and liabilities, corresponding standards under the Income Tax Act are essential to ensure smooth and harmonised transition. Draft Income Computation and Disclosure Standards released by Ministry of Finance in this regard in January 2015 are under finalisation.
2. Banks and Insurance Companies have been kept out of the proposed road map for transition to Ind-AS in view of the specific needs and concerns of these two sectors.
3. Issues such as cost of compliance, capacity building, managing two sets of standards (one for entities that seek transition and the other for those which do not) and the impact of exceptions or ‘carve outs’ on the achievement of objectives of convergence would need to be addressed through a well-coordinated mechanism among MCA, DPE and ICAI.

4.8 DISTINCTION BETWEEN INDIAN AS AND INTERNATIONAL AS

The detail of difference between Accounting Standards and Ind- AS is enormous. Also, the impact of these differences vary from industry to industry and even from company to company. However, the major differences are listed below. Let us discuss them in defant.

| Basic of Distinction | Accounting Standards(AS) | Ind-AS |
|-------------------------|---|---|
| Need | When businesses were not that complicated and accounting was done at local level, then accounting standards based on local GAAP were enough. | Today, businesses have become complicated and a globalised world is in the need of a comprehensive accounting standards that can be consistently applied globally and facilitate compatibility. Introduction of Ind-AS is the need of the hour for India to compete in this globalised world |
| Objective | The basic objective of Accounting standards is to remove variation in the treatment of several accounting aspects and to bring about standardization in presentation. They intent to harmonize the diverse accounting policies in the preparation and presentation of financial statements by different reporting enterprises so as to facilitate intra-firm and inter-firm comparison. | Ind-AS are Indian version of IFRS because it will be impractical to just adopt the IFRS blindly without taking into consideration the current Indian scenario. International Financial Reporting Standards are principles based standards, interpretation and the framework adopted by the International Accounting Standards Board (IASB). Since India is a member country so it has to adopt these standards. However, any changes in these IFRS would have an impact on books of Indian companies to adopt these IFRS as and when amended. So to fill the difference, Ind-AS have been introduced which is nothing but IFRS. These standards have been made applicable to Indian companies through a road map i.e., in a systematic manner. The benefit of these standards is that any change in IFRS would not impact Ind- AS directly. The Ministry of corporate affairs can analysis such changes and incorporate the same in Ind-AS if it thinks it is suitable. |
| Pervasiveness | AS are not so pervasive or widespread. | Ind-AS are pervasive and cover every area comprising reported revenues, expenses, assets, liabilities and equity. |
| Basis | AS are driven by 'legal' form in a number of areas and are rule based. | Ind-AS focus on 'substance' rather than the legal form. They are principal based, Ind-AS will also result in accounting which more closely reflects the underlying business rationale and true economics of transaction. |
| Disclosure requirements | Disclosure requirements are comparatively less detailed. | Disclosure requirements are more comprehensive and multifold under Ind-AS to enhance the transparency and accountability of financial statements. |

The government of India has issued notification regarding Ind- AS. Following is the list of Ind-AS notified:

- 1) Ind-AS 1 Presentation of Financial Statements
- 2) Ind-AS 2 Inventories
- 3) Ind-AS 7 Statement of Cash Flows
- 4) Ind-AS 8 Accounting Policies, Changes in Accounting Estimates and Errors
- 5) Ind-AS 10 Events after the Reporting Period
- 6) Ind-AS 11 Construction Contracts
- 7) Ind-AS 12 Income Taxes
- 8) Ind-AS 16 Property, Plant and Equipment
- 9) Ind-AS 17 Leases
- 10) Ind-AS 18 Revenue
- 11) Ind-AS 19 Employee Benefits
- 12) Ind-AS 20 Accounting for Government Grants and Disclosure of Government Assistance
- 13) Ind-AS 21 The Effects of Changes in Foreign Exchange Rates
- 14) Ind-AS 23 Borrowing Costs
- 15) Ind-AS 24 Related Party Disclosures
- 16) Ind-AS 27 Consolidated and Separate Financial Statements
- 17) Ind-AS 28 Investments in Associates
- 18) Ind-AS 29 Financial Reporting in Hyper-inflationary Economies
- 19) Ind-AS 31 Interests in Joint Ventures
- 20) Ind-AS 32 Financial Instruments: Presentation
- 21) Ind-AS 33 Earnings per Share
- 22) Ind-AS 34 Interim Financial Reporting
- 23) Ind-AS 36 Impairment of Assets
- 24) Ind-AS 37 Provisions, Contingent Liabilities and Contingent Assets
- 25) Ind-AS 38 Intangible Assets
- 26) Ind-AS 39 Financial Instruments: Recognition and Measurement
- 27) Ind-AS 40 Investment Property

Check Your Progress B

1. Define the term 'IFRS'.

.....
.....
.....

2. What is the need of forming IFRS?

.....

.....

.....

3. What are the challenges of converging accounting standards to IFRS in India?

.....

.....

.....

4. Describe the difference between AS and Ind-AS?

.....

.....

.....

.....

4.9 MEASUREMENT OF BUSINESS INCOME

One of the most significant accounting concepts is “**Concept of Income**”. Similarly, measurement of a business income is also an important function of an accountant. In General term, payment received in lieu of services or goods are called income. But we are here more concerned for a business income. Surplus revenue over expenses incurred is called as “Business Income.

Measurement of Business Income

There are following two factors which are helpful in the estimation of an income –

- **Revenues** - Sale of goods and rendering of services are the way to generate revenue. Therefore, it can be defined as consideration, recovered by the business for rendering services and goods to its customers.
- **Expenses** - An expense is an expired cost. We can say the cost that have been consumed in a process of producing revenue are the expired cost. Expenses tell us - how assets are decreased as a result of the services performed by a business.

Measurement of Revenue - Measurement of the revenue is based on an accrual concept. Accounting period, in which revenue earned, is the period of revenue accrues. Therefore, a receipt of cash and revenue earned are the two different things. We can say that revenue is earned only when it is actually realized and not necessarily, when it is received.

Measurement of Expenses

- In case of delivery of goods to its customers is a direct identification with the revenue.
- Rent and office salaries are an indirect association with the revenue.

There are four types of events (given below) that need proper consideration about as an expense of a given period and expenditure and cash payment made in connection with those items –

- Expenditure, which are expenses of the current year.
- Some expenditure, which are made prior to this period and has become expense of the current year.
- Expenditure, which is made this year, becomes expense in the next accounting periods. For example, purchase of fixed assets and depreciation in next up-coming years.
- Expense of this year, which will be paid in next accounting years. For example, outstanding expenses.

4.10 OBJECTIVES OF MEASUREMENT OF BUSINESS INCOME

The measurement of income is useful for more than one purpose and therefore its objectives may be studied from different points of view:

- i) **As a guide to future investment:** The current income positively influences the expectations about the future. The prospective investor looks to the income of the business enterprise as a guide to his investments decisions of the future. The investors attempt to maximize their returns on their investments and their decisions will be guided by income. So the allocation of investment funds and selections of securities depend upon income levels of an enterprise.
- ii) **As a tax base:** Though the Income Tax Act does not define yet it does specify what is taxable and what is deductible in arriving at the taxable income. Accounting income provides income of a business enterprise. The tax authorities can conveniently mobilize the revenues through taxes which are one of the main sources of the Government's income.
- iii) **As a guide to dividend policy:** The dividend policy at present is directed to determine the proportion of the current income which should be retained and the proportion which should be distributed as dividends. So long as dividends are paid out of current income, the rights of the creditors are adequately protected since other resources of the business enterprise would not be used to pay dividends. There are clear rules for measurement of distributable profits in the Companies Act with a view to protect the interests of the creditors.
- iv) **As an indicator of managerial efficiency:** The efficiency of management as decision makers and as trustees of resources is judged by the reported income of the current year. The auditors therefore certify that the income statement presents true and fair view of operational results. The measurement of business income therefore provides a suitable criterion for the efficiency of management in a competitive economy.
- v) **As a measure of overall efficiency and credit worthiness:** Income is the lifeblood of any business enterprise and therefore it provides that basic standard by which the overall efficiency of the business is assessed. For

creditors, profitable enterprise faces no difficulty in making timely payment on its debts. Banks and other credit institutions too depend upon current income levels as a guide about a firm's ability to repay loan out of future income.

4.11 APPROACHES FOR MEASURING INCOME

In order to measure income, four main methods or approaches can be used: the operation approach, activities approach, balance sheet approach, or value added approach. Let's take a look at each of these.

Transaction/Operation Approach

Transactions are mostly related to production or the purchase of goods and the sale of goods and all these transactions directly or indirectly related to the revenue or to the cost. Therefore, surplus collection of the revenue by selling goods, spent over for production or purchasing the goods is the measure of income. This system is widely followed by the enterprises where double entry system adopted.

The Balance Sheet or value added Approach: Comparison of the closing values (Assets minus outsider's liabilities) of a firm with the values at the beginning of that accounting period is called as Balance Sheet approach. In above value, an addition to capital will be subtracted and addition of drawings will be added while computing the business income of a firm. Since, income is calculated with the help of Balance Sheet hence called as Balance Sheet approach.

4.12 ACCOUNTING CONCEPT THAT IS RELEVANT TO MEASUREMENT OF BUSINESS INCOME - REALIZATION CONCEPT

Realization concept in accounting, also known as revenue recognition principle, refers to the application of accruals concept towards the recognition of revenue (income). Under this principle, revenue is recognized by the seller when it is earned irrespective of whether cash from the transaction has been received or not.

In case of sale of goods, revenue must be recognized when the seller transfers the risks and rewards associated with the ownership of the goods to the buyer. This is generally deemed to occur when the goods are actually transferred to the buyer. Where goods are sold on credit terms, revenue is recognized along with a corresponding receivable which is subsequently settled upon the receipt of the due amount from the customer.

In case of the rendering of services, revenue is recognized on the basis of stage of completion of the services specified in the contract. Any receipts from the customer in excess or short of the revenue recognized in accordance with the stage of completion are accounted for as prepaid income or accrued income as appropriate.

Example: Motor Hundai is a car Dealer. It receives orders from the customers in advance against 20% down payment. Motor PLC delivers the cars to the respective customers within 30 days upon which it receives the remaining 80% of the list price. In accordance with the revenue realization principle, motor Hundai must not recognize any revenue until the cars are delivered to the respective customers as that is the point when the risks and rewards incidental to the ownership of the cars are transferred to the buyers.

Importance

Application of the realization principle ensures that the reported performance of an entity, as evidenced from the income statement, reflects the true extent of revenue earned during a period rather than the cash inflows generated during a period which can otherwise be gauged from the cash flow statement. Recognition of revenue on cash basis may not present a consistent basis for evaluating the performance of a company over several accounting periods due to the potential volatility in cash flows.

4.13 LET US SUM UP

1. Accounting Standards are defined as written statements of accounting rules and guidelines or practices for preparing the uniform and consistent financial statements.
2. Objectives of issuing accounting standards are to provide information, to harmonise different accounting processes and to facilitate uniformity, consistency and comparability.
3. Benefits of accounting standards – (i) true and fair financial position, (ii) easy comparability, (iii) enhances the value of accounting information, (iv) efficiency of management, (v) useful to accountants and auditors and (vi) enhances credibility and reliability.
4. The authority to make accounting standards in India is Accounting Standard Board. It follows the prescribed procedure to issue an accounting standard.
5. Procedure for issuing accounting standards-ASB assisted by study group-exposure draft- circulation- ASB after incorporating suggestions submit to ICAI. After that ICAI will issue standard.
6. Ind-AS 101 lays out the accounting principles for first-time adoption of Ind-AS. It prescribes the various requirements to be fulfilled during the transition period in moving from Accounting Standards (Indian GAAP) to Ind-AS.
7. Section 133 of Companies Act, 2013 requires the companies to comply with the prevailing accounting standards. As on 1st April, 2016 there are 32 accounting standards specified by ICAI, all of which are mandatory to be complied by the companies.
8. International Financial Reporting Standards is a single set of accounting standards, developed and maintained by the International Accounting Standards Board with the intention of those standards being capable of being applied on a globally consistent basis.

9. With the increasing globalisation of financial markets and of companies, the use of a single set of financial reporting standards across countries is viewed as having increased the comparability of financial statements across borders.
10. India has decided to converge its existing accounting standards to IFRS. In India, the converged accounting standards are called Ind-AS.

4.14 KEY WORDS

Accounting Standards: Accounting Standards are defined as written statements of accounting rules and guidelines or practices for preparing the uniform and consistent financial statements.

ASB: The board constituted by ICAI to conceive, formulate, examine and review the accounting standards.

GAAP: Generally Accepted Accounting Principles consist of accounting concepts and conventions so as to bring comparability and uniformity in the financial statements of various business organizations.

International Financial Reporting Standards: IFRS is a single set of accounting standards, developed and maintained by the International Accounting Standards Board with the intention of those standards being capable of being applied on a globally consistent basis.

ICAI: Institute of Chartered Accountants of India- the apex body of accounting professionals of India.

Ind-AS: In India, the converged accounting standards are called Ind-AS.

Ind-AS 101: Ind-AS 101 lays out the accounting principles for first-time adoption of Ind-AS.

4.16 SOME USEFUL BOOKS

Maheshwari, S.N. and S.K. Maheshwari, 2018. "Financial Accounting", Vikas Publishing House, New Delhi.

Tulsian, P.C., 2018. "Advanced Accounting", Tata Mc Graw Hill, New Delhi.
Materiality, Full Disclosure, Conservatism and Consistency.

Maheshwari, S.N., 2018. Introduction to Accounting, Vikas Publishing House: New Delhi.

4.16 TERMINAL QUESTIONS

1. What are Accounting standards? What is the need of issuing accounting standards?
2. Describe the procedure of issuing AS in India.
3. Explain the concept of IFRS.
4. Describe the convergence of AS to Ind-AS.
5. What is business income? Why income should be computed?
6. What are the principles that govern the measurement of accounting income?
7. What are the features of Ind-AS 101?



ignou
THE PEOPLE'S
UNIVERSITY

UNIT 5 JOURNAL AND LEDGER

Structure

- 5.0 Objectives
- 5.1 Introduction
- 5.2 What is Journal?
- 5.3 Form of the Journal
- 5.4 Steps in Journalising
- 5.5 Transactions of Different Types
 - 5.5.1 Transactions Relating to Purchase and Sale of Goods for Cash
 - 5.5.2 Transactions Relating to Purchase and Sale of Goods on Credit
 - 5.5.3 Transactions Relating to Return of Goods
 - 5.5.4 Transactions Relating to Purchase and Sale of Assets
 - 5.5.5 Transactions Relating to Expenses and Incomes
 - 5.5.6 Transactions Relating to other Receipts and Payments of Cash
 - 5.5.7 Transactions Relating to Receipts and Payments by Cheque
 - 5.5.8 Transactions with the Proprietor
 - 5.5.9 Transactions Relating to Cash Discount
 - 5.5.10 Transactions Relating to Bad Debts
- 5.6 Compound Journal Entry
- 5.7 Opening Entry
- 5.8 Casting and Carry Forward
- 5.9 What is Ledger ?
- 5.10 Form of a Ledger Account
- 5.11 Posting in to Ledger
- 5.12 Posting a Compound Journal Entry
- 5.13 Balancing Ledger Accounts
- 5.14 Significance of Balance
- 5.15 Posting an Opening Entry
- 5.16 Let Us Sum Up
- 5.17 Key Words
- 5.18 Answers to Check Your Progress
- 5.19 Terminal Questions/Exercises
- 5.20 Some Useful Books

5.0 OBJECTIVES

After going through this unit, you will be able to:

- explain what journal is;
- analyse a business transaction and identify the accounts affected;
- apply rules of debit and credit, and formulate journal entries;
- prepare journal;
- post the journal entries in the respective ledger accounts;
- balance a ledger account and explain the significance of balance in an account;
- prepare a trial balance to test the arithmetical accuracy of recording in the books of account; and
- post an opening entry.

5.1 INTRODUCTION

You are aware that every business transaction involves transfer of money or money's worth between two accounts. Recording of transaction is considered as complete only when both the receiving and the giving aspects are recorded in the books of account. This recording takes place in two stages. In the first stage, the transactions are recorded through a book called 'Journal' and in the second stage they are entered in the other book called 'Ledger'.

You have learnt about the different stages of accounting, different classes of accounts, and the rules of debit and credit. With this background, you will now be able to analyse the transactions and record them in the book of original entry i.e., Journal. In this unit, we intend to explain how exactly the entries are made in the journal. All business transactions are recorded in the books of account in two stages: (1) Journalising, and (2) Posting into Ledger. In this unit, you will learn about recording in the ledger. This involves posting journal entries into various accounts in the ledger, balancing the accounts periodically, and preparing a Trial Balance to check the arithmetical accuracy of all accounting entries.

5.2 WHAT IS JOURNAL ?

A Journal is called a book of prime entry (also called book of original entry) because all business transactions are entered first in this book. The word 'Journal' means a daily record. The transactions are recorded in this book in the order in which they occur i.e., they are entered in a chronological order. In this book, both aspects i.e., the receiving aspect and the giving aspect of the transaction, are recorded. The process of recording a transaction in the journal is called Journalising. The entries made in the journal are called 'journal entries'.

5.3 FORM OF THE JOURNAL

We shall now study the form of the journal. The form is given in Figure 5.1.

| Date (1) | Particulars (2) | L.F. (3) | Dr. Amount (4) | Cr. Amount (5) |
|----------|-----------------|----------|----------------|----------------|
| | | | | |

Fig. 5.1

The journal is provided with five columns. Each of these columns is meant for recording a specific detail of the transaction.

Column (1) is used for recording the date of the transaction i.e., the date on which the transaction has occurred. It is customary to write the year at the top of the column. In the next line, the month is written below the year and the date of the transaction is entered immediately after the month as follows:

| | |
|---------------------|---------------|
| (Year) | 2018 |
| (Month,date) | Jan. 1 |

Note that the year and the month are not repeated for every transaction. Ditto (“”) mark is placed below the month to indicate that the month is the same. Similarly when two or more transactions have taken place on the same day, ditto mark is placed below the date.

Column (2) is called Particular’s column. This column is meant for recording the names of the two accounts which are involved in the transaction. This is also used for writing a brief description about the transaction called ‘narration’. Let us note carefully the method of writing in this column.

The same of the amount to be debited is written very close to the left hand side line i.e., the line demarcating the date column and the particulars column. The abbreviation ‘Dr’ for debit is written on the same line against the name of the account. The name of the account which is to be credited is written in the next line preceded by the word ‘To’. Note that it is not written immediately below the name of the account which has got the debit but a few spaces towards the right. It is not necessary to write ‘Cr.’ after the name of the account to be credited. Then, in the next line, a brief description (narration) of the transaction is given within brackets. The narration would generally begin with a word like ‘Being’ or ‘For’. After completing narration, a line must be drawn across the entire ‘particulars’ columns to separate one entry from the other.

Let us take an example: **Sold goods for cash, Rs. 500 on May 2, 2018.**
 In this transaction, the two accounts are Cash Account and Goods Account. You know, as per rules, Cash Account is to be debited and Goods Account is to be credited. This transaction will be shown in the journal as follows:

| Date | Particulars | L.F. | Dr. Amount | Cr. Amount |
|---------------|---|------|------------|------------|
| 2018 May 2 | Cash AccountDr. To Goods Account (Being cash Sale of goods) | – | Rs. 500 | Rs. 500 |

Column (3) is known as the L.F. (Ledger Folio) Column. Folio means page number, so it is meant for writing the number of the page in the Ledger on which the particular account appears. The account to be debited and the account to be credited are likely to be on different pages in the Ledger. The page numbers on which these accounts appear are indicated against the name of each account in this column. This column is filled at the time of posting into the ledger.

Columns (4) and (5) are called amount columns. Column (4) is called the debit amount column and column (5) is called the credit amount column. The amount to be debited is entered in the debit amount column against the name of the account, and the amount to be credited is entered in the credit amount column against the name of the account. Both the amounts will always be equal, as you have observed in the case of the above example.

5.4 STEPS IN JOURNALISING

In recording various business transactions in the journal, the most important aspect is the entry in the ‘Particulars’ column. Any mistake in this regard would lead to incorrect accounting. Hence, you should analyse the transaction carefully before making such entries. The following steps shall help you to do such analysis:

1. Take up the transaction, one by one. Read and analyse the transaction carefully from the business entity point of view, and identify the two accounts that are being affected by the transaction.
2. You are aware that accounts have been classified as personal, real and nominal accounts. Hence, after identifying the two accounts that are affected by the transaction, you must determine, in respect of each account, whether it is a personal account or a real account or a nominal account.
3. Each class of account has its own rule of debit and credit, which you have already learnt. Now, apply the relevant rules and decide which account is to be debited and which is to be credited.

The three steps explained above will have to be repeated in respect of every transaction. We have simply reinforced the point here to help you to journalise correctly.

Besides identifying the accounts to be debited and credited, you should be equally careful about the date of the transaction and the amounts with which each account is to be debited or credited. Now let us take a transaction, analyse it and see how a complete journal entry will be made.

Sold goods to Saran Brothers on credit for Rs. 500 on January 3, 2018

Step 1: From the business point of view, it is a sale of goods on credit. In this case, the receiving aspect is Saran Brothers (as they receive the goods) and the giving aspect is Goods (as goods go out). So, the two accounts affected are ‘Saran Brothers’ Account’ and ‘Goods Account’.

Step 2: The next step is to classify the accounts identified in the Step 1. You are aware that Saran Brothers' Account is a personal account because it relates to persons, and Goods Account is a real account as it relates to property of the business.

Step 3: The rule for personal accounts is 'debit the receiver and credit the giver'. Saran Brothers receive the goods. So, Saran Brothers' Account will be 'debited'. The rule for real accounts is 'debit what comes in and credit what goes out'. Goods go out of business. So, Goods Account will be credited.

Having identified that Saran Brothers' Account is to be debited and Goods Account is to be credited, the entry will be recorded in the journal as follows:

| Date | Particulars | L.F. | Dr. Amount | Cr. Amount |
|----------------|---|------|------------|------------|
| 2018 Jan. 3 | Saran Brothers Dr. To Goods Account (Being goods sold on credit) | – | Rs. 500 | Rs. 500 |

Check Your Progress A

- State whether the following are **True** or **False**:
 - Journal is a book of original entry.
 - Journal records all transactions in a business in the order in which they occur.
 - The process of recording a transaction is called posting.
 - In the journal entry 'Dr.' must be written against the name of the account debited, and 'Cr.' against the name of the account credited.
 - Narration must be written for every transaction entered in the Journal.
- What are the steps to be followed in journalising the business transaction?

.....

.....

.....

.....

5.5 TRANSACTIONS OF DIFFERENT TYPES

Study carefully the following illustrations where entries for particular type of transactions are presented. Later, some comprehensive illustrations will be given which shall include transactions of all types.

5.5.1 Transactions Relating to Purchase and Sale of Goods for Cash

Most common transactions in business relate to buying and selling of goods. Purchase and sale of goods can take place either on cash basis or on credit basis. In illustration 1, we take up transactions relating to purchase and sale of goods for cash.

Illustration

Enter the following transactions in the journal.

| | | |
|--------------|-------------------------------------|--------|
| 2018 Jan. 1. | Bought goods for cash | 38,000 |
| 2. | Sold goods for cash | 2,500 |
| 3. | Purchased goods for cash from Ajeet | 8,000 |
| 4. | Sold goods to Kishan for cash | 3,500 |

Solution:

JOURNAL

| Date | Particulars | L.F. | Dr. Amount | Cr. Amount |
|----------------|--|------|---------------|---------------|
| 2018 Jan. 1 | Goods Account Dr. To Cash Account (Being cash purchase of goods) | | Rs. 38,000 | Rs. 38,000 |
| “ 2 | Cash Account Dr. To Goods Account (Being cash sale of goods) | | 2,500 | 2,500 |
| “ 3 | Goods Account Dr. To Cash Account (Being cash purchase of goods) | | 8,000 | 8,000 |
| “ 4 | Cash Account Dr. To Goods Account (Being cash sale of goods) | | 3,500 | 3,500 |

If you carefully go through the four transactions given above, you will notice that in the first two transactions, there is no mention of the names of the parties with whom the transactions took place. In the other two transactions, the names of the parties concerned are clearly given. However, it has not made any difference in the journal entries. They remain the same, because while recording cash purchase or cash sale it is not necessary to involve personal accounts of the parties concerned. For the business, the dual effect of such transactions is only on (i) cash account, and (ii) goods account.

5.5.2 Transactions Relating to Purchase and Sale of Goods on Credit

In case of purchase and sale of goods on credit, cash is not paid immediately. The settlement of the account is postponed to a later date. Hence, while recording such transactions, it is necessary to involve the personal accounts of the parties concerned. In case of credit sale, the personal account of the buyer is debited. He becomes a debtor, signifying that the party is under an obligation to pay later. Similarly, in case of credit purchase, the personal account of the party is credited. He becomes a creditor, signifying that the business is under an obligation to pay them at a later date.

Now let us consider some transactions of purchase and sale of goods on credit and understand how they are recorded in journal.

Illustration

Journalise the following transactions:

| | | | |
|-------|---|----------------------------------|--------|
| 2018 | | | Rs. |
| March | 1 | Sold goods to Anand on credit | 18,000 |
| “ | 4 | Bought goods on account from Ram | 48,000 |
| “ | 6 | Purchased goods from Shyam | 13,000 |

JOURNAL

| Date | Particulars | L.F. | Dr. Amount | Cr. Amount |
|-----------------|--|------|------------|------------|
| | | | Rs. | Rs. |
| 2018 March 1 | Anand's Account Dr. To Goods Account (Being goods sold on credit) | | 18,000 | 18,000 |
| March 4 | Goods Account Dr. To Ram's Account (Being goods purchased on credit) | | 48,000 | 48,000 |
| March 6 | Goods Account Dr. To Shyam's Account (Being goods purchased on credit) | | 13,000 | 13,000 |

You have seen that it is necessary to involve the personal account of the party, when purchase or sale of goods is on credit. You must have noticed that terms like 'on credit' and 'on account' indicate that it is a credit transaction. It is not always necessary to use such terms. For example, transactions can be worded as 'Bought goods from Mahesh', 'Sold goods to Suresh', without using the terms 'on credit' or 'on account'. These are also credit transactions.

Sometimes a transaction may merely read as 'bought goods' or 'sold goods'. Here it is not clearly stated whether these are cash or credit transactions. Remember that in case of a credit transaction, the name of the party concerned is always given. In the above transactions, names of the parties concerned are not stated. Hence, these shall be treated as cash transactions.

Check Your Progress B

1. Explain the distinction between cash and credit transactions.

.....

.....

.....

2. Some transactions are given below. State whether they are cash transactions or credit transactions.

| | Transaction | State whether a cash transaction or a credit transaction |
|----|--|--|
| a) | Bought from Rahul, goods worth Rs. 10,000 | |
| b) | Purchased goods for Cash, Rs. 5,000 from Tagore | |
| c) | Bought on account from Bose, goods for Rs. 8,000 | |
| d) | Bought goods for Rs. 16,000 | |



| | | |
|----|--|--|
| f) | Sold goods to Trivedi for cash Rs. 3,000 | |
| g) | Sold goods to Lal on account, Rs. 4,000 | |
| h) | Sold goods Rs. 6,000 | |

5.5.3 Transactions Relating to Return of Goods

Goods may be returned for various reasons. When goods are returned by a customer, his liability to that extent gets reduced. Hence, it is necessary to give him a credit for the goods returned. Similarly, when the business returns some goods to its supplier, the liability of the business stands reduced to that extent. Hence, the supplier's account will be debited.

Illustration

Journalise the following transactions:

| | | |
|----------|-----------------------|-----|
| 2018 | | Rs. |
| April 10 | Anand returned goods | 500 |
| “ 12 | Returned goods to Ram | 700 |

Solution:

JOURNAL

| Date | Particulars | L.F. | Dr. Amount | Cr. Amount |
|----------|---|------|------------|------------|
| 2018 | Goods Account Dr. | | Rs. 500 | Rs. |
| April 10 | To Anand's Account (Being goods returned by Anand) | | | 500 |
| April 12 | Ram's Account Dr. | | 700 | |
| | To Goods Account (Being goods returned by Anand) | | | 700 |

Note: In illustrations 1, 2 and 3 above you find that all transactions relating to goods (be it purchase, purchase return, sale or sale return) have been recorded through the Goods Account. However, it would be more purposeful and convenient to record different types of transactions relating to goods, through separate accounts. This helps you to ascertain the amount of purchase and sale for a given period more quickly and correctly. Hence, in practice, instead of one Goods Account, five separate accounts are maintained, as shown below:

- i) For recording all cash and credit purchases of goods—Purchases Account.
- ii) For recording all cash and credit sales of goods—Sales Account.
- iii) For recording goods returned to suppliers—Returns Outward Account or Purchase Returns Account.
- iv) For recording goods returned by customers—Returns Inward Account or Sales Returns Account.
- v) For goods in stock as at the end of the year—Stock Account.

In the comprehensive illustrations 9 and 10, entries have been made according to the above practice. Purchase of goods has been debited to Purchases Account, and sale of goods has been credited to Sales Account, and so on.

5.5.4 Transactions Relating to Purchase and Sale of Assets

Assets like machinery, furniture, vehicles, etc. are brought for use in the business and not for resale. Hence, when an asset is bought, the particular asset account is debited. Similarly, when an asset is sold, the account of that asset is credited.

Assets may also be bought for cash or on credit. You have already noted the difference in the treatment of transactions relating to cash and credit purchases. The same treatment is followed in case of transactions relating to purchase and sale of assets.

Illustration

Journalise the following transactions:

| | | |
|-------|--|----------|
| 2018 | | Rs. |
| May 1 | Purchased buildings | 1,75,000 |
| “ 4 | Sold old machinery to Joshi | 1,500 |
| “ 8 | Bought furniture from Gopal & Company for cash | 1,10,000 |
| “ 9 | Bought motor vehicles from Allied Motors | 90,000 |

Solution:

JOURNAL

| Date | Particulars | L.F. | Dr. Amount | Cr. Amount |
|-------|--|------|------------|------------|
| 2018 | Rs. | | Rs. | |
| May 1 | Building Account Dr. To Cash Account (Being building purchased) | | 1,75,000 | 1,75,000 |
| “ 4 | Joshi's Account Dr. To Machinery Account (Being machinery sold to him) | | 1,500 | 1,500 |
| “ 8 | Furniture Account Dr. To Cash Account (Being furniture purchased) | | 1,10,000 | 1,10,000 |
| “ 9 | Motor Vehicle Account Dr. To Allied Motor's Account (Being motor vehicles purchased) | | 90,000 | 90,000 |

5.5.5 Transactions Relating to Expenses and Incomes

You know the expenses and incomes are generally paid/received in cash. So in case of expenses, we debit the concerned expense account and credit cash account. In case of incomes, we debit cash account and credit the concerned income account. Now let us take some examples of such transactions.

Illustration

Journalise the following transactions:

| | | |
|---------|----------------------------------|--------|
| 2018 | | Rs. |
| April 2 | Paid salaries | 18,000 |
| “ 3 | Paid rent to landlord Rajesh | 2,000 |
| “ 6 | Received interest on investments | 1,300 |
| “ 7 | Received commission from Mahesh | 1,900 |

Solution:

JOURNAL

| Date | Particulars | L.F. | Dr. Amount | Cr. Amount |
|---------------|--|------|----------------|---------------|
| 2018 May 2 | Salaries Account Dr. To Cash Account (Being salaries paid) | | Rs. 18,000 | Rs. 18,000 |
| May 3 | Rent Account Dr. To Cash Account (Being rent paid) | | 2,000 | 2,000 |
| May 6 | Cash Account Dr. To Interest Received Account (Being interest received on investments) | | 1,300 | 1,300 |
| May 7 | Cash Account Dr. To Commission Received Account (Being commission received) | | 1,900 1,900 | |

In the second transaction in the above illustration, rent was paid to Rajesh, the landlord, but the debit has been given to the nominal account (Rent Account) and not to the personal account of Rajesh. Similarly, when commission was received from Mahesh (fourth transaction), it is the Commission Received Account that has been credited and not the personal account of Mahesh who paid the commission. This is so because these are cash transactions, and no debtor/creditor relationship is created as there is no obligation yet to be fulfilled.

There is another point to be noted in this context. In illustration 5, you have seen that when rent is paid, Rent Account has been debited (it is an expense) and when interest is received, Interest Received Account has been credited (it is an income). In business, certain nominal accounts like Salaries Account, Wages Account, and Postage Account would involve only payments, as these will always be expenses. But certain other items like interest, commission, rent, etc., can sometimes be an expense, sometimes an income. In such case, it is better to maintain separate accounts for their payments and receipts.

5.5.6 Transactions Relating to other Receipts and Payments of Cash

Apart from cash purchase, cash sale, payment of expenses, and receipt of incomes, there are many other transactions which involve movement of cash. For example, the business may receive cash from its debtors (customers from the goods were sold on credit), pay cash to creditors (suppliers of goods on credit), receive or repay loan, etc. In the earlier illustrations, you have learnt that whenever cash is paid, Cash Account is credited, and whenever cash is received, Cash Account is debited. The same treatment will be applicable to the other cash transactions as given in illustration.

Illustration

Enter the following transactions in the journal:

| | | |
|---------|--------------------------------------|--------|
| 2018 | | Rs. |
| April 1 | Received cash from Anand, on account | 9,000 |
| “ 2 | Paid to Ram on account | 6,000 |
| “ 3 | Took a loan from Chetan | 30,000 |

Solution:**JOURNAL**

| Date | Particulars | L.F. | Dr. Amount | Cr. Amount |
|-----------------|--|------|--------------|--------------|
| 2018 April 1 | Cash Account Dr. To Anand's Account (Being cash received on account) | | Rs. 9,000 | Rs. 9,000 |
| “ 2 | Ram's Account Dr. To Cash Account (Being cash paid on account) | | 6,000 | 6,000 |
| “ 3 | Cash Account Dr. To Loan from Chetan Account (Being loan taken) | | 30,000 | 30,000 |

In business, sometimes loans are taken to augment the capital invested by the proprietor. In such cases, the word 'loan' is added to the name of the party concerned to distinguish this account from the other accounts. For example, in illustration, a loan was taken from Chetan, the credit was given to Loan from Chetan Account and not to Chetan's Account.

Similarly, a business unit may give a loan. In such a case, also the word loan is added to the name of the account. For example, a business unit has given loan to Sohan, the debit will be given to Loan to Sohan Account, and not to Sohan's Account.

5.5.7 Transactions Relating to Receipts and Payments by Cheque

So far, all payments and receipts which have been discussed were in the form of cash. But you know that payments and receipts are also made through cheque. Although we intend to discuss the various banking transactions later. You must at this stage, learn about the journal entries for payments and receipts by cheque.

When payment is made by cheque the credit will be given to Bank Account because the bank balance will be reduced. Similarly, when payment is received by cheque, the amount will be debited to Bank Account as the cheque is deposited in the bank which increases the bank balance. Some examples are given in illustration.

Illustration

Journalise the following transactions:

| | | |
|---------|---------------------------------------|-------|
| 2018 | | Rs |
| April 2 | Paid to Ram on Account by cheque | 9,000 |
| “ 4 | Received cheque from Shiva on account | 6,000 |

| Date | Particulars | L.F. | Dr. Amount | Cr. Amount |
|---------|--|------|------------|------------|
| 2018 | | | Rs. | Rs. |
| April 2 | Ram's Account Dr. To Bank Account (Being paid to him by cheque) | | 9,000 | 9,000 |
| “ 4 | Bank Account Dr. To Shiva's Account (Being amount received from him by cheque) | | 6,000 | 6,000 |

5.5.8 Transactions with the Proprietor

You have already learnt that the business and its proprietor are treated as separate entities. This necessitates maintaining of separate accounts in the ledger for recording the transactions between the proprietor and the business. Whatever the proprietor brings into the business is treated as capital and is credited to the Capital Account. Similarly, when the proprietor withdraws cash from the business for his personal use he is debited with the amount withdrawn. Such debit is given to a separate account called Drawings Account. Drawings Account is also debited when the proprietor takes goods from business for his domestic use.

As explained earlier, both the Capital Account and the Drawings Account are treated as personal accounts belonging to the proprietor. Some examples of transactions with the proprietor are given in illustration .

Illustration

Enter the following transactions in the Journal:

| | | | |
|-------|---|--|----------|
| 2018 | | | Rs. |
| May 1 | Ganesh commenced business with a capital of | | 1,00,000 |
| “ 2 | He withdraw cash for personal use | | 7,000 |
| “ 3 | He introduced additional capital | | 18,000 |
| “ 4 | He took goods for domestic use | | 1,000 |

JOURNAL

| Date | Particulars | L.F. | Dr. Amount | Cr. Amount |
|-------|---|------|------------|------------|
| 2018 | | | Rs. | Rs. |
| May 1 | Cash Account Dr. To Capital Account (Being capital brought in) | | 1,00,000 | 1,00,000 |
| “ 2 | Drawings Account Dr. To Cash Account (Being cash withdrawn for personal use) | | 7,000 | 7,000 |
| “ 3 | Cash Account Dr. To Capital Account (Being additional capital brought in) | | 18,000 | 18,000 |
| “ 4 | Cash Account Dr. To Capital Account (Being additional capital brought in) | | 1,000 | 1,000 |

5.5.9 Transaction Relating to Cash Discount

You have learnt earlier about two types of discounts allowed to customers: (i) trade discount, and (ii) cash discount. Trade discount is not shown in the books of account since it is adjusted in the invoice itself and the entry in the books of account is made for the net amount only. But the case of cash discount is different. At the time of sale, the buyer is debited with the net amount of the invoice. Later if cash discount is allowed at the time of payment, it must be adjusted in the personal account of the debtor. This would show that his account stands cleared, and nothing more remains due.

When cash discount is allowed to the debtor, it is a loss to the business and so debited to Discount Allowed Account and credited to the personal account of the debtor. Similarly, when cash discount is allowed by the creditor, it is a gain to the business so it is credited to Discount Received Account and debited to the personal account of the creditor.

The entries relating to cash discount shall be illustrated under compound journal entry.

5.5.10 Transactions Relating to Bad Debts

When a debtor becomes insolvent, the business shall not be able to realise full amount due from him. A part of it will remain unrealised. The unrealised amount is called 'bad debt'. It is a loss to the business and so debited to Bad Debts Account, and credited to the personal account of the debtor.

If the amount treated as bad debts is recovered later on, the same shall be a gain to the business. Hence, it will be credited to Bad Debts Recovered Account and debited to Cash Account. Note that the bad debts so recovered shall not be credited to the personal account of the debtor.

Illustration

Ramesh commenced business on January 1, 2018. His transactions for the month are given below. Journalise them.

| 2018 | | Rs. |
|--------|--|----------|
| Jan. 1 | Commenced business with a capital of | 1,50,000 |
| " | 2 Bought goods from Ajeet and Co. | 35,000 |
| " | 3 Sold goods for cash | 6,000 |
| " | 4 Purchased furniture | 6,000 |
| " | 7 Purchased goods on account from Gautam & Co. | 18,000 |
| " | 8 Returned goods to Gautam & Co. | 600 |
| " | 8 Paid for advertisement | 1,000 |
| " | 10 Cash sales | 5,000 |
| " | 13 Sold goods to Venkat | 6,000 |
| " | 14 Venkat returns goods | 400 |
| " | 19 Paid Ajeet and Co. on account | 18,000 |

| | | |
|------|---------------------------------|-------|
| “ 25 | Paid office expenses | 300 |
| “ 26 | Received from Venkat on account | 3,000 |
| “ 31 | Paid salaries | 5,000 |
| “ 31 | Drew cash for private expenses. | 3,000 |

Solution:**JOURNAL**

| Date | Particulars | L.F. | Dr. Amount | Cr. Amount |
|----------------|---|------|-----------------|------------|
| 2018 Jan. 1 | Cash Account Dr. To Capital Account (Being capital bought in) | Rs. | Rs. 1,50,000 | 1,50,000 |
| “ 2 | Purchase Account Dr. To Ajeet and Co's Account (Being credit purchase) | | 35,000 | 35,000 |
| “ 3 | Cash Account Dr. To Sales Account (Being cash sales) | | 6,000 | 6,000 |
| “ 4 | Furniture Account Dr. To Cash Account (Being furniture purchased) | | 8,000 | 8,000 |
| “ 7 | Purchase Account Dr. To Gautam & Co's Account (Being credit Purchases) | | 18,000 | 18,000 |
| “ 8 | Gautam & Co's Account Dr. To Returns Outwards Account (Being goods returned to Gautam & Co.) | | 600 | 600 |
| “ 8 | Advertisement Account Dr. To Cash Account (Being payment, for advertisement) | | 1,000 | 1,000 |
| “ 10 | Cash Account Dr. To Sales Account (Being cash sales) | | 5,000 | 5,000 |
| “ 13 | Venkat's Account Dr. To Sales Account (Being credit sales) | | 6,000 | 6,000 |
| “ 14 | Returns Inwards Account Dr. To Venkat's Account (Being goods returned by Venkat) | | 400 | 400 |
| “ 19 | Ajeet Co's Account Dr. To Cash Account (Being cash paid on account) | | 18,000 | 18,000 |

| | | | | | |
|---|----|--|--|-------|-------|
| “ | 25 | Office Expenses Account Dr. To Cash Account (Being office expenses) | | 300 | 300 |
| “ | 26 | Cash Account Dr. To Venkat's Account (Being cash received on account) | | 3,000 | 3,000 |
| “ | 31 | Salaries Account Dr. To Cash Account (Being salaries paid) | | 5,000 | 5,000 |
| “ | 31 | Drawings Account Dr. To Cash Account (Being cash withdrawn for personal use) | | 3,000 | 3,000 |

Illustration

Journalise the following transactions:

| | | | |
|------|---|--------------------------------|--------|
| 2018 | | Rs. | |
| June | 1 | Cash sale to Ashok | 1,800 |
| “ | 2 | Bought goods from Vinod | 10,000 |
| “ | 3 | Old newspapers sold | 100 |
| “ | 4 | Paid Municipal taxes by cheque | 900 |
| “ | 4 | Paid for repairs to machinery | 600 |
| “ | 8 | Received commission by cheque | 1,700 |

Solution:**JOURNAL**

| Date | Particulars | L.F. | Dr. Amount | Cr. Amount |
|---------|--|------|------------|------------|
| 2018 | | | Rs. | Rs. |
| June. 1 | Cash Account Dr. To Sales Account (Being cash sales) | | 1,800 | 1,800 |
| “ 2 | Purchase Account Dr. To Vinod's Account (Being credit purchase) | | 10,000 | 10,000 |
| “ 3 | Cash Account Dr. To Miscellaneous Income Account (Being the income received by sale of old newspaper) | | 100 | 100 |
| “ 4 | Municipal Taxes Account Dr. To Bank Account (Being Municipal taxes paid by cheque) | | 900 | 900 |
| “ 4 | Repairs Account Dr. To Cash Account (Being repairs to machinery) | | 600 | 600 |
| “ 8 | Bank Account Dr. To Commission Account (Being commission received by cheque) | | 1,700 | 1,700 |

Check Your Progress C

1. Name the accounts which are maintained in lieu of Goods Account.
 - i)
 - ii)
 - iii)
 - iv)
 - v)
2. Select the best answer.
 - a) The amount bought in by the proprietor in the business, should be credited to :
 - i) Proprietor's Account
 - ii) Drawings Account
 - iii) Capital Account
 - b) Purchase of furniture should be debited to
 - i) Furniture Account
 - ii) Goods Account
 - iii) Equipment Account
 - c) Return of goods to a supplier should be credited to
 - i) Goods Account
 - ii) Returns Outward Account
 - iii) Supplier's Account
 - d) Wages paid to Billu should be debited to
 - i) Billu's Account
 - ii) Cash Account
 - iii) Wages Account
 - e) Loan taken from Krishna should be credited to
 - i) Krishna's Account
 - ii) Loan from Krishna Account
 - iii) Bank Account
 - f) Payment made by cheque should be credited to
 - i) Bank Account
 - ii) Cheque Account
 - iii) Cash Account

- g) Cash discount allowed to a debtor should be debited to
- i) Customer's Account
 - ii) Allowances Account
 - iii) Discount Allowed Account
- h) In case of bad debts, the amount should be debited to
- i) Debt Account
 - ii) Bad debts Account
 - iii) Discount Allowed Account
3. Distinguish between trade discount and cash discount.

.....

.....

.....

.....

4. What is bad debt?

.....

.....

.....

5. How do you deal with the amount treated as bad debt which is recovered later on?

.....

.....

.....

5.6 COMPOUND JOURNAL ENTRY

You have seen transactions which involve only two accounts. Sometimes, a transaction may involve more than two accounts. Sometimes, there may be more transactions of the same nature taking place on the same date. In such situations, if we pass separate journal entries, it may take more time and also require more space. Hence, such transactions may be recorded by means of a single journal entry. Such an entry is called a 'compound journal entry'. It may be recorded in the following three ways:

- a) by debiting one account and crediting two or more accounts; or
- b) by debiting two or more accounts and crediting one account; or
- c) by debiting several accounts and crediting several accounts. Take, for example, the following transactions:

- a) **Paid cash to Ganesh Rs. 490. He allowed Rs. 10 as discount and settled his account.** This transaction involves three accounts: (i) Ganesh's Account, (ii) Cash Account, and (iii) Discount Received Account. The journal entry will be:

| | | Rs. | Rs. |
|------------------------------|-----|-----|-----|
| Ganesh's Account | Dr. | 500 | |
| To Cash Account | | | 490 |
| To Discount Received Account | | | 10 |

(Being cash paid to him in full settlement of the account)

- b) **Sold goods to Rao & Sons Rs. 800 and Sharma Bros. Rs. 500, on May 5, 2018.**

These two transactions are of the same nature and have taken place on the same date. Their entries can be combined by passing the following compound journal entry.

| | | Rs. | Rs. |
|----------------------|-----|-----|-------|
| Rao & Sons Account | Dr. | 800 | |
| Sharma Bros. Account | Dr. | 500 | |
| To Sales Account | | | 1,300 |

(Being sale made)

- c) **A running business with the following assets and liabilities was purchased from Tularam for Rs. 64,000**

| | | | |
|-----------------|-------------------|------------------|-------------------|
| Building | Rs. 40,000 | Furniture | Rs. 12,000 |
| Stock | Rs. 20,000 | Creditors | Rs. 8,000 |

The journal entry will be:

| | | Rs. | Rs. |
|----------------------|-----|-------|--------|
| Building Account | Dr. | | 40,000 |
| Furniture Account | Dr. | | 12,000 |
| Stock Account | Dr. | | 20,000 |
| To Creditors | | 8,000 | |
| To Tularam's Account | | | 64,000 |

(Being assets and liabilities taken over)

5.7 OPENING ENTRY

When a new accounting year begins, the previous year's balances in different accounts are brought forward to the new books of accounts. This is done by means of a journal entry called 'opening entry'. In this entry, all assets accounts are debited and liabilities accounts (including owner's capital account) are credited. If, however, capital account balance is not given, it can be worked out by deducting other liabilities from the total assets.

Mr. Avinash has the following balances of assets and liabilities on December 31, 2018.

| | | | |
|--------------|-----------|----------------|------------|
| Cash in hand | Rs. 2,500 | Stock of goods | Rs. 22,500 |
| Furniture | Rs. 5,000 | Bank Loan | Rs. 10,000 |

Pass the opening entry on January 1, 2019.

Solution:

JOURNAL

| Date | Particulars | L.F. | Dr. Amount | Cr. Amount |
|---------|--|------|------------|------------|
| 2019 | | | Rs. | Rs. |
| June. 1 | Cash Account Dr. | | 2,500 | |
| | Stock Account Dr. | | 22,500 | |
| | Furniture Account Dr. | | 5,000 | |
| | To Bank Loan Account | | | 10,000 |
| | To Capital Account (Being balances brought forward from the previous year) | | | 20,000 |

Check Your Progress D

1. What is a Compound entry ?

.....

2. Complete the following sentences:

- a) A compound entry is passed for transactions involving
- b) A compound entry is passed if there are more transactions of same nature on.....
- c) A compound entry can be passed by debiting one account and crediting.....
- d) A compound entry can be passed by crediting one account and debiting.....
- e) In opening entry, all assets are debited and all are credited

3. On December 31, 2018, the assets and liabilities of Chemico Industries were as follows:

| | | | |
|-----------|------------|-----------|------------|
| Machinery | Rs. 11,000 | Furniture | Rs. 3,000 |
| Stock | Rs. 24,000 | Debtors | Rs. 17,000 |
| Cash | Rs. 3,000 | Creditors | Rs. 29,600 |
| Loan | Rs. 5,400 | | |

Calculate the capital of M/s Chemico Industries as on January 1, 2019 to enable you to pass an opening entry.

5.8 CASTING AND CARRY FORWARD

Journal is totalled periodically (daily or weekly), depending upon the volume of business and the number of transactions. Totalling is called 'casting'. You have to total both the debit amount column and the credit amount column. Since every debit has an equal and corresponding credit, the totals of the two columns should always be equal. If, however, they do not tally, it implies that there is some error. In that case, you must go through the entire work and locate the error and get the correct total.

When the transactions during a particular period are many and cannot be journalised in the same page, then it would be necessary to total the two amount columns on that page and carry forward the total to the next page. This is done by writing 'Total c/f' against the totals in the particulars column and entering the amount in both amount columns. These totals are then brought forward on the next page by writing 'Total b/f' in the particulars column and entering the amount in both the amount columns. You must draw a line in the particulars column before making the remaining entries in the journal.

Illustration

Enter the following transactions in the journal:

2018

April 1 Bought an almirah for Rs. 450, and paid Rs. 30 for cartage.

“ 2 Proprietor took away goods worth Rs. 200 for personal use. “

3 Gave goods worth Rs. 100 in charity.

“ 4 Sold an old machine for Rs. 2,000. “ 5

Paid insurance premium Rs. 90.

“ 6 Purchased goods worth Rs. 5,000 for cash less 20 trade discount.

“ 7 Received Rs. 980 from Kisan Chand, and allowed him Rs. 20 cash discount.

“ 8 Rs. 500 were due to Ghanshyam. Paid Rs. 480 in full settlement of his account.

“ 9 Cash of Rs. 560 was stolen from the cash box.

“ 10 Han Singh, a debtor became insolvent. He owed Rs. 400. A final composition of 50 paise in a rupee was received.

“ 11 Sold goods to Karim Rs. 800. “

12 Paid into bank Rs. 400.

JOURNAL

| Date | Particulars | L.F. | Dr. Amount | Cr. Amount |
|----------------|---|------|------------|------------|
| 2018 June.1 | Furniture A/c Dr. To Cash A/c (Being Purchase of an almirah for Rs. 450, Cartage paid Rs. 30) | | Rs. 480 | Rs. 480 |
| “ 2 | Drawings A/c Dr. To Purchases A/c (Being goods taken away by the proprietor for personal use) | | 200 | 200 |
| “ 3 | Charity A/c Dr. To Purchases A/c (Being goods given in charity) | | 100 | 100 |
| “ 4 | Cash A/c Dr. To Machinery A/c (Being sale of old machinery) | | 2,000 | 2,000 |
| “ 5 | Insurance A/c Dr. To Cash A/c (Being payment of insurance premium) | | 90 | 90 |
| “ 6 | Purchase A/c Dr. To Cash A/c (Being purchase of goods) | | 4,000 | 4,000 |
| “ 7 | Cash A/c Dr. Discount Allowed A/c Dr. To Kishan Chand (Being cash received from him, discount allowed Rs. 20) | | 980 20 | 1000 |
| “ 8 | Ghanshyam Dr. To Cash A/c To Discount Received A/c (Being cash paid to him, discount received Rs. 20) | | 500 | 480 20 |
| “ 9 | Loss by Theft A/c Dr. To Cash A/c (Being loss by theft) | | 560 | 560 |
| “ 10 | Cash A/c Dr. Bad Debts A/c Dr. To Hari Singh (Being cash received from him, discount allowed Rs. 20) | | 200 200 | 400 |
| “ 11 | Karim Dr. To Sales A/c (Being credit sales) | | 800 | 800 |
| “ 12 | Bank A/c Dr. To Cash (Being cash paid into bank) | | 400 | 400 |
| | | | 10,530 | 10,530 |

The following clarifications with regard to Some transactions will help you to understand their journal entries.

Transaction 1. Rs. 30 paid as cartage have been included in the cost of the furniture purchased and debited to Furniture Account. You know, furniture is a fixed asset. Any expenditure incurred in relation to the purchase of a fixed asset is included in the cost of the fixed asset and as such debited to that asset itself.

Transaction 2. When goods are taken away by the proprietor for his personal use, it is treated as his drawings and so debited to Drawings Account. Further, the proprietor can be charged with only the cost of the goods taken and not the selling price. Hence, it is considered appropriate to reduce the purchases of the business by the amount of goods taken by him, as if the goods were purchased partly for the business and partly for the proprietor.

Transaction 3. The argument applicable to transaction 2 also holds good for the goods given in charity.

Transaction 5. Note that the amount paid as insurance premium is debited to Insurance Account and not to Insurance Premium Account. The premium is just an instalment for an insurance policy taken to cover the risk. The head of account is insurance.

Transaction 6. The entry has been made for the net amount only. Nothing has been debited to Discount Account. You have learnt that debit to Discount Account is needed only in case of cash discount and not in case of trade discount.

Transaction 10. Hari Singh became insolvent. Only half the amount due could be recovered from him. The balance is bad debt. It is a loss to the business and so has been debited to Bad Debts Account.

You would observe a few more points in the above illustration

- a) Instead of writing full word 'Account' its abbreviation 'A/c' has been used. This is what we normally do. In fact the current practice is not to write anything, just the name of the account is enough.
- b) The word 'Account' or its abbreviation 'A/c' has not been used against personal names. This again is a common practice. Writing 'A/c' is confined to real and nominal accounts only.
- c) While carrying forward the total from one page to another, no lines have been drawn below the totals. A line is drawn only in the particulars column after writing 'Total b/f'.

5.9 WHAT IS LEDGER?

Ledger is a book which contains all accounts affected by various transactions in a business. Ledger can be termed as a classified and summarised record of business transactions relating to all personal, real and nominal accounts.

All transactions which are first recorded in the journal, must invariably be posted into the concerned accounts in the ledger. This is necessary because Journal is just a chronological record of transactions, identifying the accounts to be debited and credited. It does not help us to know the net effect of various transactions affecting a particular account. This can only be achieved by recording the effect

of all transactions on each account at one place. Let us illustrate this. Suppose, Mohan Brothers have been selling goods on credit to Suresh. Suresh is allowed to make part payments and make further purchases even before the old balance is cleared. No doubt, all transactions relating to the goods sold to him and the amounts received from him would be duly recorded in the journal (or its subdivisions). But the journal, by itself, will not be in a position to readily provide information as to whether Suresh, at a given point of time, owes them any money and if so, how much. This is because the entries for transactions with him have been made at different places in the journal and you will have to go through all entries to obtain the required information. If however, all sales made to Suresh and the amounts received from him are shown at one place, say, in Suresh's Account in the ledger, the required information would be readily available. This is true of all accounts, be they personal accounts, real accounts or nominal accounts.

Ledger, thus is a book where all accounts are maintained and into which all journal entries are posted. As all transactions must ultimately be recorded in the respective accounts, the ledger is called the 'Book of Final Entry'. It is also called the 'Principal Book of Accounts'. In fact transactions can even be directly recorded into various ledger accounts. But, normally, this is not done because in that case we will not have any date wise record of all transactions and the details thereof. Such record is necessary for future reference.

To sum up (i) the ledger contains all the personal, real and nominal accounts, (ii) the ledger is a permanent, ultimate and up-to-date record of all transactions, and (iii) the ledger provides a means of easy and ready reference.

The ledger is a bound volume with the pages numbered consecutively. Alphabetical index is also shown at the beginning so that the page in which an account appears can be easily ascertained. In certain modern business, loose-leaf ledgers are maintained, instead of one bound volume. Banks maintain loose-leaf ledgers for customer's deposit accounts.

5.10 FORM OF A LEDGER ACCOUNT

As stated earlier, an account is the summarised record of all the transactions relating to a particular person or an item. The form of an account is given below:

NAME OF THE ACCOUNT

Dr.

Cr.

| Date | Particular | Folio | Amount | Date | Particular | Folio | Amount |
|------|------------|-------|--------|------|------------|-------|--------|
| | | | Rs. | | | | Rs. |
| | | | | | | | |

You are already familiar with 'T' form of an account. A page is folded vertically in the middle to make it into two halves. Actually, folding is not necessary as usually pre-printed books are available. Sometimes, two pages are taken together as a unit. In that case, the entire page on the left hand side is considered as the debit side and the other page on the right hand side is treated as the credit side.

The columns in ledger account are very much similar to those in journal. In the journal, you have two amount columns because the dual aspect of each transaction has to be analysed and presented side by side. In the ledger account, the first three columns of the journal, viz., date, particulars and folio, appear on both the debit and the credit side and so also the amount column. However, the column meant for entering the page number in ledger is merely called 'folio', whereas in the journal it is called 'ledger folio'. It is important to note this similarity at the outset, as it would make ledger posting an easy task.

Let us look at the form of ledger account once again. In the middle of the top of the account, the 'Name of the Account' is given. It will be written as 'Shyam's Account', or 'Furniture Account' or 'Rent Account', as the case may be. You also find that Dr. and Cr. appear at the two extreme ends of the top line of the account. The left hand side is designated as debit side and is indicated by writing 'Dr.' on the left hand top corner. Similarly, 'Cr.' is written on the right hand top corner to indicate the credit side. When an account is to be debited, the entry is made on the debit side and when it is to be credited, the entry is made on the credit side.

5.11 POSTING IN TO LEDGER

The journal entries form the basis for recording in the ledger accounts, and the process of entering transaction in the ledger is called 'Posting'. When a journal entry has to be posted in the concerned ledger accounts, the following procedure is adopted.

1. Every journal entry will have to be posted into all those accounts which have been debited and credited in the journal entry. For example, for cash sales, Cash Account is debited and Sales Account is credited in the journal. When this entry is posted in the ledger, it must be posted in Cash Account as well as in Sales Account.
2. Posting will be made on the debit side of the account which has been debited in the journal, and the credit side of the account which has been credited in the journal. In case of above example of the cash sales, posting will be made on the debit side of Cash Account, as it has been debited in journal and the credit side of Sales Account, as it had been credited in the journal.
3. Whether the posting is made on the debit side or the credit side, first of all the date of the transaction (as given in the journal) will be entered in the date column. The method of recording the date in the ledger account is the same as in journal.
4. While posting on the debit side of an account, in the particulars column, we shall write the name of the account which had been credited in the journal and add the word 'To' before the name. Similarly while posting on the credit side of an account, we shall write the name of the account which has been debited in the journal and add the word 'By' before the name. In case of the above example, we shall write 'To Sales A/c' in particulars column on the debit side of Cash Account and 'By Cash A/c' in particulars column on the credit side of the Sales Account.

5. The journal entries contain 'narration'. But it is not required in the ledger accounts. Similarly, there is no need to draw a line between the two entries in an account as is done in the journal. Note that posting in the ledger account is considered complete only when both the debit and the credit aspects of all journal entries have been posted.
6. In the folio column, we shall mention the page number of the journal where the concerned journal entry appears. At the same time, the page number of the ledger accounts will be entered in the 'L.F.' column in the journal so as to complete the cross reference.
7. The amount involved in the journal entry shall be entered in amount columns of both the accounts.

Now let us take a transaction, Journalise it, and then show how the posting is done in the ledger.

Illustration

Purchased machinery for cash, Rs. 50,000 on April 4, 2018. This transaction will appear in the journal and the ledger as under:

JOURNAL

| Date | Particulars | L. F. | Dr. Amount | Cr. Amount |
|---------------|---|-------|---------------|---------------|
| 2018 Apr.4 | Machinery A/c Dr. To Cash A/c (Being machinery purchased) | | Rs. 50,000 | Rs. 50,000 |

LEDGER

Machinery Account

| Dr. | | | | Cr. | | | |
|-----------------|-------------|-------|---------------|------|------------|-------|--------|
| Date | Particulars | Folio | Amount | Date | Particular | Folio | Amount |
| 2018 April 4 | To Cash A/c | | Rs. 50,000 | | | | Rs. |

Cash Account

| Dr. | | | | Cr. | | | |
|------|-------------|-------|--------|-----------------|-----------------|-------|---------------|
| Date | Particulars | Folio | Amount | Date | Particular | Folio | Amount |
| 2018 | | | Rs. | 2018 April 4 | By Machinery | | Rs. 50,000 |

Now we take a few more transactions and illustrate further the ledger posting aspect of the transactions, from the journal entries.

Illustration

Journalise the following transactions and post them into the ledger.

| | | |
|------------|--|--------|
| 2018 April | | Rs. |
| 2" | Cash Sales | 15,000 |
| 2" | Paid Salaries | 6,000 |
| 6" | Sold goods to Pankaj | 10,000 |
| 10" | Cash purchases | 5,000 |
| 13" | Paid for stationery | 100 |
| 18" | Goods taken by proprietor for personal use | 1,000 |
| 23" | Bought goods from Manoj | 13,000 |
| 25" | Received from Pankaj on account | 4,000 |
| 27" | Sold goods for cash | 4,000 |
| 30" | Received interest on investments | 1,400 |

| Date | Particulars | L. F. | Dr. Amount | Cr. Amount |
|-----------------|---|-------|---------------|---------------|
| 2018 April 2 | Cash Account Dr. To Sales Account (Being cash sales) | Rs. | Rs. 15,000 | 15,000 |
| " 2 | Salaries Account Dr. To Cash Account (Being salaries paid) | | 6,000 | 6,000 |
| " 6 | Pankaj's Account Dr. To Sales A/c 10,000 (Being goods sold to Pankaj on credit) | | 10,000 | 10,000 |
| " 10 | Purchases Account Dr. To Cash Account (Being cash purchase) | | 5,000 | 5,000 |
| " 13 | Stationery Account Dr. To Cash Account (Being stationery purchased) | | 100 | 100 |
| " 18 | Drawings Account Dr. To Purchases Account (Being goods taken for personal use) | | 1,000 | 1,000 |
| " 23 | Purchases Account Dr. To Manoj's Account (Being goods purchased from Manoj on credit) | | 13,000 | 13,000 |

| | | | | Journal and Ledger | |
|---|----|---|-----|--------------------|-------|
| “ | 25 | Cash Account To Pankaj's Account (Being the amount received) | Dr. | 4,000 | 4,000 |
| “ | 27 | Cash Account To Sales Account (Being cash sales) | Dr. | 4,000 | 4,000 |
| “ | 30 | Cash Account To Interest Account (Being interest received on investments) | Dr. | 1,400 | 1,400 |

LEDGER
Cash Account

| Dr. | | | | Cr. | | | |
|---------|-----------------|-------|--------|---------|-------------------|-------|--------|
| Date | Particular | Folio | Amount | Date | Particular | Folio | Amount |
| 2018 | | | Rs. | 2018 | | | Rs. |
| April 2 | To Sales A/c | | 15,000 | April 2 | By Salaries A/c | | 6,000 |
| “ 25 | To Pankaj's A/c | | 4,000 | “ 10 | By Furniture A/c | | 5,000 |
| “ 27 | To Sales A/c | | 4,000 | “ 13 | By Stationery A/c | | 100 |
| “ 30 | To Interest A/c | | 1,400 | | | | |

Sales Account

| | | | | | | | |
|--|--|--|---------|-----------------|--|--|--------|
| | | | 2018 | | | | Rs. |
| | | | April 2 | By Cash A/c | | | 15,000 |
| | | | “ 6 | By Pankaj's A/c | | | 10,000 |
| | | | “ 27 | By Cash A/c | | | 4,000 |

Salaries Account

| | | | | | | | |
|---------|-------------|--|------|--|--|--|--|
| 2018 | | | Rs. | | | | |
| April 2 | To Cash A/c | | 6000 | | | | |

| | | | | | | | |
|---------|--------------|--|--------|----------|-------------|--|-------|
| 2018 | | | Rs. | 2018 | | | Rs. |
| April 6 | To Sales A/c | | 10,000 | April 25 | By Cash A/c | | 4,000 |

Purchase Account

| | | | | | | | |
|----------|----------------|--|--------|----------|-----------------|--|-------|
| 2018 | | | Rs. | 2018 | | | Rs. |
| April 10 | To Cash A/c | | 5,000 | April 18 | By Drawings A/c | | 1,000 |
| “ 23 | To Manoj's A/c | | 13,000 | | | | |

Stationery Account

| | | | | | | | |
|----------|-------------|--|-----|--|--|--|--|
| 2018 | | | Rs. | | | | |
| April 13 | To Cash A/c | | 100 | | | | |

Drawings Account

| | | | | | | | |
|----------|------------------|--|-------|--|--|--|--|
| 2018 | | | Rs. | | | | |
| April 18 | To Purchases A/c | | 1,000 | | | | |

| | | | | | | |
|--|--|--|------------------|-----------------|--|---------------|
| | | | 2018 April 23 | By Purchase A/c | | Rs. 13,000 |
|--|--|--|------------------|-----------------|--|---------------|

Interest Account

| | | | | | | |
|--|--|--|------------------|-------------|--|--------------|
| | | | 2018 April 30 | By Cash A/c | | Rs. 1,400 |
|--|--|--|------------------|-------------|--|--------------|

5.12 POSTING A COMPOUND JOURNAL ENTRY

Normally we post a journal entry into two accounts, on the debit side of one account and the credit side of the other account. This is because most journal entries have only two accounts. But it is not so in case of a compound journal entry which involves more than two accounts. A compound entry will be posted on the debit side of two or more accounts and the credit side of one account, or on the debit side of one account and credit side of two or more accounts. This will depend upon the number of accounts that have been debited and credited in the journal entry. Take, for example, a journal entry for the following transactions:

On May 31, 2018 Mohan, a customer, paid cash Rs. 950 in settlement of his account of Rs. 1,000.

The journalentry for this transaction will be:

| | | | | | |
|----------------|---|------------|--|------------------|------------------|
| 2018 May 31 | Cash A/c Discount Allowed A/c To Mohan (Being amount received in full settlement) | Dr. Dr. | | Rs. 950 50 | Rs. 1,000 |
|----------------|---|------------|--|------------------|------------------|

In this journal entry, two accounts have been debited and one account has been credited. It will be posted in the debit side of both Cash Account and Discount Allowed Account, and the credit side of Mohan's Account. In the Particular column of the debit side of Cash Account and Discount Allowed Account we shall write 'To Mohan'. On the credit side of Mohan's Account, in Particulars column we shall write 'By Cash A/c', and then in the next line 'By Discount Allowed A/c' and show the respective amounts in the Amount column. See the posting of this compound journal entry as given below:

Cash Account

| | | | | | |
|----------------|----------|------------|--|--|--|
| 2018 May 31 | To Mohan | Rs. 950 | | | |
|----------------|----------|------------|--|--|--|

Discount Allowed Account

| | | | | | |
|----------------|----------|-----------|--|--|--|
| 2018 May 31 | To Mohan | Rs. 50 | | | |
|----------------|----------|-----------|--|--|--|

Mohan's Account

| | | | | | |
|--|--|--|----------------|-------------------------|------------|
| | | | 2018 May 31 | By Cash A/c | Rs. 950 |
| | | | " 31 | By Discount Allowed A/c | 50 |

Alternatively, in Mohan 's Account we can simply write 'By Sundries' in Particulars column and show full amount in the Amount column.

The above example should help you to also correctly post a compound journal entry where one account has been debited and two or more accounts have been credited, or where many accounts have been debited and many accounts have been credited.

Check Your Progress E

1. What is Ledger?

.....

2. What is posting?

.....

3. State whether each of the following statements is **True** or **False**.

- a) Posting is done in the journal.
- b) Posting will be made on the debit side of an account which had been debited in the journal.
- c) The word 'To' is used with the name of an account while making posting on the credit side of an account.
- d) No narration is written while posting into ledger accounts.
- e) Every journal entry will be posted only into those accounts which have been debited in the journal.
- f) Compound journal entry is posted to more than two accounts.

5.13 BALANCING LEDGER ACCOUNTS

In the above illustration, you have seen that many transactions are likely to involve a particular account, and there are a number of entries on both sides of an account. At the end of a day, a week or a month, it would be necessary to know the net effect of various transactions entered in an account. For example, it would be important and useful to know as to what is still due from a customer. We can get this information by working out the difference between the total of debit entries and the total of credit entries in customer's account. This process is termed as 'balancing of an account. For example, look at the Pankaj's Account in illustration . You find that there are two transactions, one on each side. Pankaj has been debited with Rs. 10,000 for credit sales to him, and credited by Rs. 4,000 for the amount paid by him. The difference between the amount debited and the amount credited is Rs. 6,000. This amount of Rs. 6,000 is the 'balance' in his account which he still owes to the business. Where the debit side total is more than the credit side total, as in this case, it is called a debit balance. It is shown, in particulars column, on the credit side by writing 'By

Balance c/d' and totals on both sides made equal. After totaling the two sides of the account, the same balance is shown on the debit side, on the next date, by writing 'To Balance b/d' in particulars column. The term c/d is an abbreviation for carried down and b/d is for brought down. Such balancing of accounts is done periodically, say, daily (as in the case of cash account), weekly, monthly or at any other convenient time, as and when needed.

Let us see the balancing of Pankaj's Account.

Pankaj's Account

| Dr. | | | | Cr. | | | |
|-----------------|----------------|------|---------------|--------------------------|----------------|------|---------------|
| Date | Particulars | L.F. | Amount Rs. | Date | Particulars | L.F. | Amount Rs. |
| 2018 April 6 | To Sales A/c | | 10,000 | 2018 April 25 " 30 | By Cash A/c | | 4,000 |
| | | | 10,000 | | By Balance c/d | | 6,000 |
| | | | 6,000 | | | | 10,000 |
| May 1 | To Balance b/d | | 6,000 | | | | |

In another situation, the total of the credit side may be more than the total of the debit side. In that case, it will be called credit balance. It will be shown on the debit side by writing 'To Balance c/d' in particulars column and the totals of the two sides made equal. After totalling the two sides of the accounts, the same balance will be shown on the credit side on the next date, by writing 'By Balance b/d' in particulars column.

Let us now explain the procedure of balancing an account stepwise.

1. Total both the amount columns (debit and credit) and ascertain the difference in two totals (use a separate rough sheet for this purpose). If there is no difference between the totals of the two sides, it means there is nil balance on this account. This means, the account is closed. However, if there is some difference in the two totals, such difference is called the 'balance'. **If the debit side total is more than the credit side total (as in Pankaj's Account), the difference is called debit balance. If, on the other hand, the total of the items on the credit side is greater than the total of the debit side, the difference is called credit balance.**
2. Put the difference between the two sides on the side showing a smaller total.
3. Enter the date on which balancing is being done, in the date column. Note that balancing is not a transaction, as this does not involve any transfer between two accounts.
4. If the balance is entered on the debit side, then write in particulars column 'To Balance c/d'. In case, the balance is entered on the credit side, write in particulars column 'By Balance c/d' (c/d stands for carried down).
5. Now total both the amount column. There might be more entries on one side, as compared to the other. Even then, the totals must be written on the same horizontal line. Draw one line across both the amount columns, on the same horizontal line. Draw one line across both the amount columns, on the same

horizontal line. Put the totals on both the sides, which will now be identical and then draw line immediately beneath the totals.

6. The closing balance (which was carried down) has now to be brought down on the side which was showing the bigger total. In other words, at the beginning of the next period, the debit balance is shown on the debit side and credit balance on the credit side of the account. It is called opening balance, The balance brought down is usually given the date following the balance date. After entering the date in the date column, if the balance brought down is on the debit side, write 'To Balance b/d' in particulars column. Similarly, if the balance brought down is on the credit side, write 'By Balance b/d' (b/d stands for brought down), particulars column. Suppose an account was balanced on June 30, and the closing balance was entered on the credit side as 'By Balance c/d'. On July 1, this balance would be entered on the debit side as 'To Balance b/d' below the total.

You have now understood the method of balancing an account. Usually a page is allotted to an account and all transactions affecting that account are posted there. Sometimes, when transactions are numerous, more number of pages can be set apart for such an account. When the balance is proposed to be brought down on the same page, then the abbreviations, c/d and b/d are used. However, when there is not much space in the same page, and the balance has to be carried forward either to the next page, or some other page, the abbreviations 'c/f' (carried forward) and 'b/f' (brought forward) are used in place of 'c/d' and 'b/d'. The page numbers are entered in the Folio columns to show as to where the balance has been carried forward and from where it has been brought forward.

Sometimes, there may be no difference between the totals of the two sides. In such cases, there will be no closing balance and no opening balance. However, to signify that the balancing has been done, totals are entered on both the sides and the account is closed.

Now let us take up comprehensive illustration and reinforce what you have learnt so far regarding journalising, posting into ledger and balancing the accounts.

Illustration

Journalise the following transactions, post them into ledger and balance the accounts:

| 2018 | | Rs. |
|---------|------------------------------------|----------|
| March 1 | Ashok commenced business with cash | 1,20,000 |
| “ 2 | Purchased furniture for cash | 24,000 |
| “ 2 | Purchased goods from Vijay | 36,000 |
| “ 3 | Sold goods | 4,800 |
| “ 4 | Paid rent | 3,000 |
| “ 6 | Sold goods to Arun | 9,000 |
| “ 7 | Arun returned goods | 450 |
| “ 10 | Bought goods from Dinesh | 24,000 |
| “ 11 | Returned goods to Dinesh | 600 |
| “ 14 | Paid for advertising | 1,500 |

| | | |
|---|--------------------------|--------|
| “ | 15 Paid for stationery | 300 |
| “ | 17 Drew for personal use | 2,400 |
| “ | 20 Cash Sales | 9,600 |
| “ | 21 Received from Arun | 2,550 |
| “ | 23 Paid to Vijay | 12,000 |
| “ | 24 Sold goods to Sanjay | 15,000 |
| “ | 28 Cash sales | 6,000 |
| “ | 31 Paid salaries | 6,000 |
| “ | 31 Paid municipal taxes | 1,200 |
| “ | 31 Paid printing charges | 1,500 |

Solution:**JOURNAL**

| Date | Particulars | L. F. | Dr. Amount | Cr. Amount |
|-----------------|---|-------|-----------------|-----------------|
| 2018 March 1 | Cash Account Dr. To Capital Account (being Capital brought in) | | Rs. 1,20,000 | Rs. 1,20,000 |
| “ 2 | Furniture Account Dr. To Cash Account (Being furniture purchased) | | 24,000 | 24,000 |
| “ 2 | Purchases Account Dr. To Vijay's Account (Being credit purchases) | | 36,000 | 36,000 |
| “ 3 | Cash Account Dr. To Sales Account (Being cash sales) | | 4,800 | 4,800 |
| “ 4 | Rent Account Dr. To Cash Account (Being rent paid) | | 3,000 | 3,000 |
| “ 6 | Arun's Account Dr. To Sales Account (Being credit sales) | | 9,000 | 9,000 |
| “ 7 | Returns Inwards Account Dr. To Arun's Account (Being goods returned by Arun) | | 450 | 450 |
| “ 10 | Purchases Account Dr. To Dinesh's Account (Being credit purchases) | | 24,000 | 24,000 |
| “ 11 | Dinesh's Account Dr. To Returns Outwards Account (Being goods returned to Dinesh) | | 600 | 600 |

| | | | | |
|------|--|-----|--------|--------|
| “ 14 | Advertising Account To Cash Account (Being the amount paid for advertising) | Dr. | 1,500 | 1,500 |
| “ 15 | Stationary Account To Cash Account (Being the payment for stationery) | Dr. | 300 | 300 |
| “ 17 | Drawings Account To Cash Account (Being cash withdrawn for Personal use) | Dr. | 2,400 | 2,400 |
| “ 20 | Cash Account To Sales Account (Being cash sales) | Dr. | 9,600 | 9,600 |
| “ 21 | Cash Account To Arun's Account (Being the amount received from Arun) | Dr. | 2,550 | 2,550 |
| “ 23 | Vijay's Account To Cash Account (Being the amount paid to Vijay) | Dr. | 12,000 | 12,000 |
| “ 24 | Sanjay's Account To Sales Account (Being credit sales) | Dr. | 15,000 | 15,000 |
| “ 28 | Cash Account To Sales Account (Being Cash sales) | Dr. | 6,000 | 6,000 |
| “ 31 | Salaries Account To Cash Account (Being salaries paid) | Dr. | 6,000 | 6,000 |
| “ 31 | Municipal Taxes Account To Cash Account (Being municipal taxes paid) | Dr. | 1,200 | 1,200 |
| “ 31 | Printing Charges Account To Cash Account (Being Printing charges paid) | Dr. | 1,500 | 1,500 |

LEDGER**Cash Account**

Dr.

Cr.

| Date | Particulars | Amount | Date | Particulars | Amount |
|----------|----------------|----------|----------|--------------------|--------|
| 2018 | | Rs. | 2018 | | Rs. |
| March 1 | To Capital A/c | 1,20,000 | March 2 | By Furniture A/c | 24,000 |
| March 3 | To Sales A/c | 4,800 | March 4 | By Rent A/c | 3,000 |
| March 20 | To Sales A/c | 9,600 | March 14 | By Advertising A/c | 1,500 |
| March 21 | To Arun A/c | 2,550 | March 15 | By Stationery A/c | 300 |

Accounting Process

| | | | | | |
|--------|----------------|-----------------|------|-------------------------|-----------------|
| “ 28 | To Sales A/c | 6,000 | “ 17 | By Drawings A/c | 2,400 |
| | | | “ 23 | By Vijay A/c | 12,000 |
| | | | “ 31 | By Salaries A/c | 6,000 |
| | | | “ 31 | By Municipal Tax A/c | 1,200 |
| | | | “ 31 | By Printing Charges A/c | 1,500 |
| | | | “ 31 | By Balance c/d | 91,050 |
| | | <u>1,42,950</u> | | | <u>1,42,950</u> |
| Apr. 1 | To Balance b/d | 91,050 | | | |

Sales Account

| 2018 | | Rs. | 2018 | | Rs. |
|---------|----------------|---------------|--------|----------------|---------------|
| Mar. 31 | To Balance c/d | 44,400 | Mar. 3 | By Cash A/c | 4,800 |
| | | | “ 20 | By Arun A/c | 9,000 |
| | | | “ 24 | By Cash A/c | 9,600 |
| | | | “ 28 | By Sanjay A/c | 15,000 |
| | | <u>44,400</u> | | By Cash A/c | 6,000 |
| | | | | | <u>44,400</u> |
| | | | Apr. 1 | To Balance b/d | 44,400 |

Arun's Account

| 2018 | | Rs. | 2018 | | Rs. |
|--------|----------------|--------------|--------|--------------------|--------------|
| Mar. 6 | To Sales A/c | 9,000 | Mar. 7 | By Returns Inwards | 450 |
| | | | “ 21 | By Cash A/c | 2,550 |
| | | | “ 31 | By Balance c/d | 6,000 |
| | | <u>9,000</u> | | | <u>9,000</u> |
| Apr. 1 | To Balance b/d | 9,000 | | | |

Return Inward Account

| 2018 | | Rs. | 2018 | | Rs. |
|--------|----------------|-----|---------|----------------|-----|
| Mar. 7 | To Arun A/c | 450 | Mar. 31 | By Balance c/d | 450 |
| Apr. 1 | To Balance b/d | 450 | | | |

Dinesh Account

| 2018 | | Rs. | 2018 | | Rs. |
|---------|-----------------------|---------------|---------|-----------------|---------------|
| Mar. 11 | To Return Outward A/c | 600 | Mar. 10 | By Purchase A/c | 24,000 |
| “ 31 | To Balance c/d | 23,400 | | | <u>24,000</u> |
| | | <u>24,000</u> | Apr. 1 | By Balance b/d | 23,400 |

Return Outward Account

| 2018 | | Rs. | 2018 | | Rs. |
|---------|----------------|-----|---------|----------------|-----|
| Mar. 31 | To Balance c/d | 600 | Mar. 11 | By Dinesh's | 600 |
| | | | Apr. 1 | By Balance b/d | 600 |

Advertising Account

Journal and Ledger

| 2018 | | Rs. | 2018 | Rs. | |
|------------------------|----------------|--------------|---------|----------------|-------|
| Mar.14 | To Cash A/c | 1,500 | Mar. 31 | By Balance c/d | 1,500 |
| Apr. 1 | By Balance b/d | <u>1,500</u> | | | |
| Capital Account | | | | | |

| 2018 | | Rs. | 2018 | Rs. | |
|--------------------------|----------------|----------|--------|----------------|-----------------|
| Mar. 31 | To Balance c/d | 1,20,000 | Mar. 1 | By Cash A/c | 1,20,000 |
| | | | Apr. 1 | By Balance b/d | <u>1,20,000</u> |
| Furniture Account | | | | | |

| 2018 | | Rs. | 2018 | Rs. | |
|-------------------------|----------------|--------|---------|----------------|--------|
| Mar. 2 | To Cash A/c | 24,000 | Mar. 31 | By Balance c/d | 24,000 |
| Apr. 1 | To Balance b/d | 24,000 | | | |
| Purchase Account | | | | | |

| 2018 | | Rs. | 2018 | Rs. | |
|------------------------|-----------------|---------------|---------|----------------|--------|
| Mar. 2 | To Vijay's A/c | 36,000 | Mar. 31 | By Balance c/d | 60,000 |
| " 10 | To Dinesh's c/d | 24,000 | | | |
| | | <u>60,000</u> | | | |
| Apr. 1 | To Balance b/d | 60,000 | | | |
| Vijay's Account | | | | | |

| 2018 | | Rs. | 2018 | Rs. | |
|---------------------|----------------|---------------|--------|-----------------|---------------|
| Mar. 23 | To Cash A/c | 12,000 | Mar. 2 | By Purchase A/c | 36,000 |
| " 31 | To Balance c/d | 24,000 | | | |
| | | <u>36,000</u> | Apr. 1 | To Balance b/d | <u>24,000</u> |
| Rent Account | | | | | |

| 2018 | | Rs. | 2018 | Rs. | |
|---------------------------|----------------|-------|---------|----------------|-------|
| Mar. 4 | To Cash A/c | 3,000 | Mar. 31 | By Balance c/d | 3,000 |
| Apr. 1 | To Balance b/d | 3,000 | | | |
| Stationery Account | | | | | |

| 2018 | | Rs. | 2018 | Rs. | |
|-------------------------|----------------|-----|---------|----------------|-----|
| Mar.15 | To Cash A/c | 300 | Mar. 31 | By Balance c/d | 300 |
| Apr. 1 | To Balance b/d | 300 | | | |
| Drawings Account | | | | | |

| 2018 | | Rs. | 2018 | Rs. | |
|--------|----------------|--------------|---------|----------------|-------|
| Mar.17 | To Cash A/c | 2,400 | Mar. 31 | By Balance c/d | 2,400 |
| Apr. 1 | To Balance b/d | <u>2,400</u> | | | |

Nominal accounts are not usually balanced, but closed by transfer to Profit and Loss Account, at the time of preparing the final accounts (at the end of the accounting period). However, to start with, for the purpose of understanding the procedure involved, nominal accounts have also been balanced. Even otherwise, the difference between the debit side and credit side totals have to be worked out for preparing the trial balance (you will learn about the trial balance later). The accounts which relate to expenses or losses will show a debit balance; whereas those relating to incomes and gains will have a credit balance. This is because all expenses and losses are debited and all incomes and gains are credited.

Check Your Progress F

1. Why do you balance an account ?

.....

2. Explain the procedure for balancing a ledger account.

.....

3. Name the types of accounts that are balanced.

.....

5.15 POSTING AN OPENING ENTRY

So far, you have learnt about the opening entry which is passed in the journal for all assets and liabilities brought from the previous year. The posting of the opening entry is very different from the posting of other journal entries. We open the concerned accounts in the new ledger for all items that appear in the opening entry. Then, in the accounts which have been debited in the opening entry we shall write 'To Balance b/f in the Particulars column on the debit side of those accounts and show the respective amount in the Amount column. Similarly, in the accounts that have credited in the opening entry, we shall write 'By Balance b/f in the particulars column on the credit side of those accounts and show the respective amount in the Amount column. Thus, the posting is complete.

As a matter of fact, the account which have been debited or credited in the opening entry merely represent the closing balances of various personal and real accounts from the previous year. These are now entered in the ledger accounts of the current year as opening balances through the opening entry.

5.16 LET US SUM UP

1. The journal is the book of prime entry in which all business transactions must be carried first. Each transaction is analysed so that the two-fold aspect of each transaction is clearly presented in the form of a 'Journal Entry'.
2. While journalising the transaction, it is necessary to remember the difference between the treatment of cash and credit transaction, as it is necessary to decide whether the personal account of the party concerned is to be involved or not.
3. Entries relating to Goods Account are made in five separate accounts depending upon the nature of the transactions. These accounts are:
(i) Purchase Account, (ii) Sales Account, (iii) Purchase Returns Account, (iv) Sales Returns Account, and (v) Stock Account.
4. A compound journal entry is one where two or more accounts receive the debit (or the credit, as the case may be) and the corresponding credit (or the debit, as the case may be) is given to the other account (or accounts).
5. An opening entry is one which is passed at the beginning of the year to bring forward the previous year's balances of assets and liabilities.
6. Ledger is a book which contains all the accounts affected by various transactions.
7. Journal by itself does not help us to know the net effect on the various transactions affecting a particular account. Hence, all journal entries are posted into ledger accounts.
8. Posting is made on the debit side of the accounts which have been debited in the journal, and the credit side of the accounts which have been credited in the journal.
9. As various transactions are posted to different accounts during a particular period of time, it is necessary to ascertain the net effect of all the posting made. This is done by balancing an account.

5.17 KEY WORDS

Balance: The difference between the total of debits and total of credits appearing in an account. It signifies the net effect of the transactions posted to that account.

Compound Entry: A journal entry involving more than two accounts.

Journal: A book of original entry where a chronological record of transactions is first made.

Journal Entry: An entry made in the journal.

Journalising: The process of recording the business in the journal.

Ledger: A book which contains all accounts affected by various transactions in business.

Opening Entry: A journal entry passed at the beginning of the year to bring forward the previous year's assets and liabilities.

Posting: A process of entering transactions into ledger accounts.

- A 1. a) True b) True c) False d) False e) True
- B 2. a) Credit b) Cash c) Credit d) Cash e) Credit f) Cash g) Credit h) Cash
- C 2. a) Capital A/c
b) Furniture A/c
c) Returns Outwards A/c
d) Wages A/c
e) Loan from Krishna A/c
f) Bank A/c
g) Discount Allowed A/c
h) Bad Debts A/c
5. Credit to Bad Debts Recovered
- A/c D 2. a) More than two accounts
b) the same date
c) two or more accounts
d) two or more accounts
e) liabilities
3. Rs. 23,000
- E 3. a) False b) True c) False d) True e) False f) True

5.19 TERMINAL QUESTIONS/EXERCISES

Questions

1. Give the form of journal.
2. What is a journal entry?
3. Explain the steps to be followed in journalising.
4. What is narration?
5. Explain as to why the journal is called a book of original entry.
6. What is a compound journal entry? Give examples.
7. What is an opening entry? Show how is it recorded?
8. Explain the rules regarding posting of journal entries into ledger accounts.
9. What is Balancing an Account? Explain how an account is balanced?

1. Journalise the following transactions:

| 2018 | | Rs. |
|--------|---------------------------------------|--------|
| Feb. 1 | Purchased goods for cash | 18,000 |
| “ 2 | Purchased goods on credit from Mithun | 37,000 |
| “ 5 | Sold goods to Mahesh | 10,000 |
| “ 8 | Cash sales | 8,000 |
| “ 9 | Cash sales to Jayant | 7,000 |
| “ 11 | Returned goods to Mithun | 4,000 |
| “ 12 | Mahesh returned goods | 1,000 |

2. Give journal entries to record the following transactions:

| 2018 | | Rs. |
|---------|--|----------|
| March 1 | Purchased furniture from Jay for cash | 38,000 |
| “ 2 | Bought plant and machinery on credit from Satish | 1,10,000 |
| “ 5 | Sale of old furniture | 1,800 |
| “ 6 | Paid to Raman | 3,700 |
| “ 8 | Received from Suresh | 2,500 |
| “ 11 | Paid salaries | 1,500 |
| “ 13 | Purchased stationery | 250 |
| “ 15 | Paid rent | 2,250 |
| “ 17 | Received commission | 400 |

5.20 SOME USEFUL BOOKS

Grewal T.S. Double Entry Book-Keeping (New Delhi: Sultan Chand & Sons, 2018)

Maheshwari, S.N. Principles and Practice of Accountancy Part-I (New Delhi: Arya Book Depot, 2018)

Patil, V.A. & Korlahalli, S. Principles and Practice of Book-Keeping (New Delhi: R. Chand & Co., 2018)

Note : These questions will help you to understand the unit better. Try to write answers for them. But, do not submit your answers to the University for assessment. These are for your own practice only.

UNIT 6 SUBSIDIARY BOOKS

Structure

- 6.0 Objectives
- 6.1 Introduction
- 6.2 Need for Sub-division of Journal
- 6.3 Subsidiary Books
- 6.4 Advantages of Subsidiary Books
- 6.5 Cash Book
- 6.6 Single Column Cash Book
 - 6.6.1 Recording in Single Column Cash Book
 - 6.6.2 Posting the Single Column Cash Book
 - 6.6.3 Balancing the Single Column Cash Book
- 6.7 Two Column Cash Book
 - 6.7.1 Recording in Two Column Cash Book
 - 6.7.2 Posting the Two Column Cash Book
 - 6.7.3 Balancing the Two Column Cash Book
- 6.8 Petty Cash Book
 - 6.8.1 Imprest System
 - 6.8.2 Recording, Posting and Balancing the Petty Cash Book
- 6.9 What is a Bank?
- 6.10 Types of Bank Accounts
 - 6.10.1 Advantage of having a Bank Account
 - 6.10.2 How to Open and Operate a Bank Account
- 6.11 Crossing of Cheques
- 6.12 Endorsement and Dishonour of Cheques
- 6.13 Three Column Cash Book
 - 6.13.1 Recording in Three Column Cash Book
 - 6.13.2 Posting the Three Column Cash Book
 - 6.13.3 Balancing the Three Column Cash Book
 - 6.13.4 Special Points Regarding Cheques Received
- 6.14 Purchases Journal
 - 6.14.1 Invoice
 - 6.14.2 Recording in the Purchases Journal
 - 6.14.3 Posting the Purchases Journal
- 6.15 Purchases Returns Journal
 - 6.15.1 Debit Note
 - 6.15.2 Recording in the Purchases Returns Journal
 - 6.15.3 Posting the Purchases Returns Journal

- 6.16 Sales Journal
 - 6.16.1 Recording in the Sales Journal
 - 6.16.2 Posting the Sales Journal
- 6.17 Sales Returns Journal
 - 6.17.1 Credit Note
 - 6.17.2 Recording in the Sales Returns Journal
 - 5.17.3 Posting the Sales Returns Journal
- 6.18 Journal Proper
- 6.19 Let Us Sum Up
- 6.20 Key Words
- 6.21 Answers to Check Your Progress
- 6.22 Terminal Questions/Exercises

6.0 OBJECTIVES

After studying this unit, you should be able to:

- appreciate the need for special journals;
- sub-divide the journal into various special journals;
- identify the type of transactions recorded in special journal;
- prepare simple cash book and balance it;
- post cash book entries into ledger;
- prepare cash book with discount column;
- post discount column entries into ledger;
- describe imprest system;
- prepare petty cash book and post it into ledger;
- describe the functions of a bank;
- explain the advantages of opening a bank account;
- describe how to open bank account;
- explain the functions of pay-in-slip book, cheque book and the pass book;
- appreciate the importance of crossing and endorsement;
- record banking transactions in a three column cash book;
- post three column cash book into ledger;
- prepare purchases and purchases returns journals and post them into ledger;
- prepare sales and sales returns journals and post them into ledger;
- prepare bills books and post them into ledger; and
- state various transactions recorded in journal proper.

6.1 INTRODUCTION

You learnt how to record the business transactions in journal and then post them into ledger. You know that journal is a book of prime entry in which all transactions are to be recorded first. But, in practice, the number of transactions happens to be so large that it becomes difficult to record them in one book. Hence, the journal is sub-divided into a number of special journals, called subsidiary books. In this unit, you will learn about the most important subsidiary book called Cash Book. We shall discuss various types of cash books, study how transactions are recorded in the Single Column Cash Book, Two Column Cash Book and Three Column Cash Book and how they are posted into ledger. You shall also learn about the Imprest System and the preparation, posting and balancing of Petty Cash Book.

Further, you will learn how to record cash transactions in Single Column Cash Book, Two Column Cash Book and Three Column Cash Book and post them into ledger. In three column cash book, we have an additional column for banking transactions. As a prelude, we shall first discuss how to open an account in a bank, the advantages of opening a bank account, the functions of pay-in-slip, cheque book and pass book, and the importance of crossing and endorsement of cheques. Then, we shall learn how various transactions with a bank are recorded in the Three Cash Book and posted into ledger.

In this unit, we also intend to take up the books like: (i) Purchases Journal, (ii) Purchases Returns Journal, (iii) Sales Journal (iv) Sales Returns Journal, (v) Journal Proper. You will also learn how transactions are recorded in each of these books and how they are posted into ledger.

6.2 NEED FOR SUB-DIVISION OF JOURNAL

The system of having only one book of prime entry may work for a small organisation where the number of transactions is usually small. But, when the number of transactions are large, it is practically impossible to record all the transactions through one journal. It is because:

- i) the journal can be handled by only one person and the work becomes too heavy for him;
- ii) the transactions may not be recorded promptly, as all transactions have to be recorded in the same book; and
- iii) the journal becomes bulky and voluminous.

In order to overcome these difficulties and to facilitate speedy recording of various transactions, the journal is sub-divided into a number of special journals called 'Subsidiary Books'.

6.3 SUBSIDIARY BOOKS

Before we list various books into which the journal is sub-divided, let us understand the basis for its sub-division. You may adopt any basis. But, the principle generally followed is that transactions of the same nature are to be recorded at one place. For example, the cash receipts and cash payments may be grouped into one category and recorded in a separate book. Similarly, all credit purchases of goods may be grouped into one category, all credit sales of goods into another category and recorded in separate books.

In practice, the journal is sub-divided in such a way that a separate book is used for each category of transactions which are repetitive in nature and are sufficiently large in number. In any large business, the following subsidiary books are generally used.

1. **Cash Book:** It is used for recording all receipts and payments of cash, including cash purchases and cash sales of goods.
2. **Purchases Journal:** It is used for recording credit purchases of goods only.
3. **Purchases Returns Journal:** It is used for recording goods returned to suppliers.
4. **Sales Journal:** It is used for recording credit sales of goods only.
5. **Sales Returns Journal:** It is used for recording goods returned by the customers.
6. **Bills Receivable Journal:** It is used for recording bills of exchange and promissory notes received from the debtors.
7. **Bills Payable Journal:** It is used for recording bills of exchange and promissory notes accepted by the business in favour of creditors.
8. **Journal Proper:** This book is used for recording all such transactions which are not covered by any of the above mentioned special journals, for example, credit purchases of fixed assets, opening entry, rectification entries, etc.

It must, however, be noted that there is no rigidity as to the number of special journals. Depending on the necessity, the number of journals may be increased or decreased.

6.4 ADVANTAGES OF SUBSIDIARY BOOKS

The following are the advantages of having a number of subsidiary books:

- i) **Classification of transactions becomes automatic:** As there is a separate book for each type of transactions, the transactions of same nature are automatically brought at the place. For example all credit purchases of goods are recorded in the purchases book.
- ii) **Reference becomes easy:** If any reference is required, it can be traced easily by referring to the appropriate subsidiary book. You do not have to go through all the transactions recorded in the journal.
- iii) **Facilitates division of work:** The division of journal into various subsidiary books facilitates division of work among many persons. This, in turn, facilitates prompt recording of transactions and saves a lot of time.
- iv) **More particulars:** More details about the transactions can be given in subsidiary books than would be possible in one book.
- v) **Responsibility can be fixed:** The work of maintaining a particular book can be entrusted to a particular person. He will be responsible for keeping it up-to-date and in order.
- vi) **Facilitates checking:** When the Trial Balance does not agree, the location of errors will be relatively easy.

Check Your Progress A

1. Write the number of correct alternative in the box.

a) A separate journal is kept for

i) each transaction

ii) each type of transactions

iii) each type of transactions which are repetitive in nature and sufficiently large in number

b) Cash Book contains

i) all receipts and payments of cash

ii) all receipts only

iii) all payments only

c) Journal Proper is meant for recording

i) credit purchase of fixed assets

ii) return of goods

iii) all such transactions for which no special journal has been kept by the business

d) Purchases Journal is kept to record

i) all purchases of goods

ii) all credit purchases of goods

iii) all credit purchases

e) Sales Journal is used to record

i) cash sales

ii) credit sales of assets

iii) credit sales of goods

6.5 CASH BOOK

Having outlined various subsidiary books, we shall now discuss the most important subsidiary book called 'Cash Book'. In any business there would be numerous cash transactions which involve either receipts or payments of cash. Cash sales, receipt of cash from debtors, cash purchases, payments to creditors, payment of various expenses such as salaries, wages, rent, taxes, etc., are some examples of transactions involving cash. All these are recorded in cash book, receipts on one side and payments on the other.

Every business unit, small or big, maintains a cash book. It enables the businessman to know and verify the amount of cash in hand from time to time. As a matter of fact, cash book plays a dual role. It is a book of prime entry and also serves the purpose

of a Cash Account. It is designed in the form of a ledger account and records cash receipts on the debit side and payments on credit side. It is also balanced in the same way. Hence, when cash book is maintained, there is no need to have a Cash Account in the ledger.

There are different types of cash books maintained by the business. These are:

1. Simple or Single Column Cash Book
2. Two or Double Column Cash Book
3. Three or Triple Column Cash Book

We shall now consider them one by one and learn how they are prepared and posted into ledger.

6.6 SINGLE COLUMN CASH BOOK

Look at the proforma of a Single Column Cash Book shown in Figure 6.1. Doesn't it look like a ledger account? Yes, it does. In fact a Single Column Cash Book is nothing but a Cash Account. It is used for recording all cash receipts and cash payments and serves the purpose of Cash Account as well. It is called Single Column Cash Book just because it has only one amount column on each side.

| Single Column Cash Book | | | | | | |
|--------------------------------|---|------|--------|------|--|-------------|
| Dr. | | | | | | Cr. |
| Date | Particulars | L.F. | Amount | Date | Particular | L.F. Amount |
| | | | Rs. | | | Rs. |
| | To (write the name of the account to be credited) | | | | To (write the name of the account to be debited) | |

Fig. 6.1

6.6.1 Recording in Single Column Cash Book

You know that Cash Account is a real account. According to rules, Cash Account is to be debited when cash is received and credited when cash is paid. Hence, the debit side of the cash book is used for recording all cash receipts and the credit side for all cash payments. Let us now discuss how entries are made in this book.

As explained above, whenever cash is received, it is to be recorded on the debit side. The date on which it is received is recorded in the date column. The name of the account from which it is received is mentioned in the particulars column. In the L.F. (Ledger Folio) column the page number of the account in the ledger, where the posting is made, is to be recorded at the time of posting. The amount column is meant for recording the amount received. Similarly, whenever cash is paid, it is recorded on the credit side. Here, in particulars column, we write the name of the party to whom payment is made, and complete the other columns in the same manner as on the debit side.

6.6.2 Posting the Single Column Cash Book

As said earlier, Cash Book also serves the purpose of a Cash Account, so there

is no need to open a Cash Account in the ledger. When a cash transaction is recorded in the cash book, posting of the cash aspect of the transaction in Cash Account stands fully covered. What remains to be posted is the other aspect of the transaction. The posting of this aspect will complete the double entry. The rules of posting therefore are:

- i) for all transactions entered on the debit side of the cash book, credit the concerned accounts in the ledger individually by writing 'By Cash Account'.
- ii) for all transactions entered on the credit side, debit the concerned accounts in the ledger individually by writing 'To Cash Account'.

Thus, the posting into the ledger accounts is completed. Note that the transactions entered on the debit side of the cash book are to be posted on the credit side of the accounts in the ledger and vice versa.

6.6.3 Balancing the Single Column Cash Book

You have already learnt how to balance a ledger account. The cash book is balanced just like any other ledger account. The cash book will always show a debit balance. This is because the cash payments can never exceed the amount of cash available. For example, if you have Rs. 10 in your pocket, can you pay Rs 15? You cannot. So the total of the debit side in the cash book will always be more than the total of the credit side. This difference indicates the cash in hand. It shall be entered on the credit side by writing 'By Balance c/d' in particulars column and showing the amount in the amount column. Now total the amount columns and you will find that the two sides are equal.

After closing the cash book, the balance is shown on the debit side by writing 'To Balance b/d'. It becomes the opening balance of cash for the next period. Note that the cash book shall generally show a debit balance and occasionally a nil balance. Look at illustration . It shows the recording, posting and balancing of a Single Column Cash Book.

Illustration

From the following particulars of M/s Naveen & Co., prepare a Simple Cash Book and balance the same. Also show postings into the ledger accounts.

| 2018 | | Rs. |
|------|---|--------|
| July | 1 Naveen started business with a capital of | 25,000 |
| " | 2 Opened a bank account and deposited | 20,000 |
| " | 5 Purchased goods for cash | 3,000 |
| " | 6 Sold goods for cash | 4,000 |
| " | 8 Purchased furniture | 1,000 |
| " | 10 Purchased goods from Ramlal on credit | 2,500 |
| " | 12 Sold goods to Chhotelal on credit | 3,000 |
| " | 16 Sold goods for cash | 1,000 |
| " | 17 Paid to Ramlal on account | 2,500 |
| " | 19 Received from Chhotelal | 2,000 |
| " | 22 Withdrawn cash from bank | 3,000 |
| " | 25 Paid electricity bill | 50 |
| " | 28 Paid rent to the landlord | 350 |
| " | 31 Paid salary to the clerk | 500 |

Cash Book of Naveen & Co.

| Dr. | | | | Cr | | | |
|---------|----------------|------|--------|---------|----------------------------|------|--------|
| Date | Particular | I.F. | Amount | Date | Particular | I.F. | Amount |
| 2018 | | | Rs. | 2018 | | | Rs. |
| July, 1 | To Capital A/c | | 25,000 | July, 2 | By Bank A/c | | 20,000 |
| “ 16 | To Sales A/c | | 4,000 | “ 5 | By Purchases A/c | | 3,000 |
| “ 19 | To Sales A/c | | 1,000 | “ 8 | By Furniture A/c | | 1,000 |
| “ 22 | To Chhotelal | | 2,000 | “ 17 | By Ramlal | | 2,500 |
| | To Bank A/c | | 3,000 | “ 25 | By Electricity Charges A/c | | 50 |
| | | | | “ 28 | By Rent | | 350 |
| | | | | “ 31 | By Salaries A/c | | 500 |
| | | | | “ 31 | By Balance c/d | | 7,600 |
| | | | 35,000 | | | | 35,000 |
| Aug.1 | To Balance b/d | | 7,600 | | | | |

Note: Transactions of July 10 and 12 are credit transactions. So they are not recorded in the cash book.

LEDGER

Capital Account

| Dr. | | | | Cr. | |
|-----|--|--|--------|-------------|--------|
| | | | 2018 | | Rs. |
| | | | July 1 | By Cash A/c | 25,000 |

Sales Account

| | | | | | |
|--|--|--|--------|-------------|-------|
| | | | 2018 | | Rs. |
| | | | July 6 | By Cash A/c | 4,000 |
| | | | “ 16 | By Cash A/c | 1,000 |

Chhotelal's Account

| | | | | | |
|--|--|--|---------|-------------|-------|
| | | | 2018 | | Rs. |
| | | | July 19 | By Cash A/c | 2,000 |

Bank Account

| | | | | | |
|---------|-------------|--------|---------|-------------|-------|
| 2018 | | Rs. | 2018 | | Rs. |
| July, 2 | To Cash A/c | 20,000 | July 22 | By Cash A/c | 3,000 |

Purchase Account

| | | | | | |
|---------|-------------|-------|--|--|--|
| 2018 | | Rs. | | | |
| July, 5 | To Cash A/c | 3,000 | | | |

Furniture Account

| | | | | | |
|---------|-------------|-------|--|--|--|
| 2018 | | Rs. | | | |
| July, 8 | To Cash A/c | 1,000 | | | |

Ramlal's Account

| | | | | | |
|----------|-------------|-------|--|--|--|
| 2018 | | Rs. | | | |
| July, 17 | To Cash A/c | 2,500 | | | |

Electricity Charges Account

| | | | | | | |
|----------|-------------|--|-----|-------------------------|--|--|
| 2018 | | | Rs. | | | |
| July, 25 | To Cash A/ | | 50 | | | |
| | | | | Rent Account | | |
| 2018 | | | Rs. | | | |
| July, 28 | To Cash A/c | | 350 | | | |
| | | | | Salaries Account | | |
| 2018 | | | Rs. | | | |
| July, 31 | To Cash A/c | | 500 | | | |

Check Your Progress B

1. Fill in the blanks:

- a) All transactions are recorded in the cash book.
- b) Cash receipts are recorded on the side of the cash

book and cash payments are recorded on the side of the cash book.

- c) Cash book also serves the purpose of
- d) Transactions entered on the debit side of the cash book are to be posted on the side of the accounts in the ledger.
- e) Cash book always shows a balance.
- f) Cash book balance reflects in hand.

2. Why does cash book always show a debit balance?

.....

6.7 TWO COLUMN CASH BOOK

Previously you learnt about the cash discount. When cash is received from a debtor, some discount may be allowed to him. Similarly, when payment is made to a creditor, some discount may be allowed by him. This is termed as Cash Discount and it has to be recorded in the books of account. While making compound journal entries for such transactions, you learnt that cash and discount go together. You know that receipts from debtors and payments to creditors are to be recorded in the cash book. Now the question arises as to how to record the cash discount. One method is to record the discount aspect separately in the journal. But this would be cumbersome, and the possibility of failing to record can also happen. Hence, accountants have developed a practice of recording the discount aspect in the cash book itself. For this, an extra amount column is added on both sides of the cash book. Look at the proforma shown in Figure 6.2. The discount allowed to debtors is recorded on the debit side and the discount received from creditors is recorded

we save time and labour.



ignou
THE PEOPLE'S
UNIVERSITY

6.7.3 Balancing the Two Column Cash Book

In case of Two Column Cash Book, only the cash columns are balanced. Procedure is similar to Single Column Cash Book. The discount columns are not balanced, they are simply totalled. This is because the two discount columns relate to two separate accounts—the Discount Allowed Account and the Discount Received Account.

Study illustration carefully. You will understand how transactions are recorded in the Two Column Cash Book and posted to the ledger accounts.

Illustration

From the following transactions of M/s. Joshi & Sons, prepare Cash Book and show the ledger postings:

| | | | |
|--|-------|---|-------|
| | 2018 | | Rs. |
| | Aug.1 | Cash in hand | 4,270 |
| | “ 5 | Purchased an old typewriter for | 1,500 |
| | “ 7 | Received cash from Singh & Co. Rs. 1,980 and allowed discount of | 20 |
| | “ 10 | Cash Sales | 5,500 |
| | “ 12 | Paid to Ram Narain Rs. 2,970 and he allowed a discount of | 30 |
| | “ 14 | Sold old newspapers for Rs. 60. | |
| | “ 16 | Received from Prasad Rs. 985 in full settlement of his account for | 1,000 |
| | “ 18 | Purchased goods worth from Sanjeev Bros. at a trade discount of 10% and paid cash. | 2,000 |
| | “ 20 | Sold goods worth for cash at a trade discount of 5%. | 1,000 |
| | “ 24 | Settled the account of Tiwari of by paying the necessary amount after deducting a discount of 3%. | 500 |
| | “ 30 | Paid rent | 500 |
| | “ 30 | Deposited in the bank the cash in excess of | 1,490 |

Notes:

Solution :

Joshi & Sons Cash Book (With Discount and Cash Columns)

| | | | | Rs. | | | | | Rs. |
|--------|------------------------|------|------------------|--------|--------|-------------------|------|-------------------|--------|
| Date | Particular | L.F. | Discount Allowed | Cash | Date | Particula | L.F. | Discount Received | Cash |
| 2018 | | | Rs. | Rs. | 2018 | | | Rs. | Rs. |
| Aug.1 | To Balance b/d | | | 4,270 | Aug. 5 | By Typewriter A/c | | | 1,500 |
| “ 7 | To Singh & Co. | | 20 | 1,980 | “ 12 | By Rain Narain | | 30 | 2,970 |
| “ 10 | To Sales A/c | | | 5,500 | “ 18 | By Purchases A/c | | | 1,800 |
| “ 14 | To Old News-papers A/c | | | 60 | “ 24 | By Tiwari | | 15 | 485 |
| “ 16 | To Prasad | | 15 | 985 | “ 30 | By Rent A/c | | | 500 |
| “ 20 | To Sales A/c | | | 950 | “ 30 | By Bank A/c | | | 5,000 |
| | | | | 35 | “ 31 | By Balance c/d | | | 1,490 |
| | | | | 13,745 | | | | 45 | 13,745 |
| Sep. 1 | To Balance b/d | | | 1,490 | | | | | |

1. The cash in hand on August 1, 2018 is not a transaction but the balance brought down from the previous month. It has been shown on the debit side of the cash column as 'To Balance b/d'. No posting to any account is necessary for the balance.
2. The transactions of August 18 and 20 are recorded at net amounts i.e., after adjusting trade discount. Earlier you learnt that trade discount is not to be shown in the books.
3. Cash in excess of Rs 1,490 is deposited in the bank. It means the closing balance of cash is Rs 1,490. The actual difference between the debit and credit cash columns would work out at Rs 6,490. Hence, the amount deposited in the bank is Rs 5,000 (6,490-1,490).

LEDGER
Singh & Co. Account

| Dr. | | Cr. |
|----------------------------------|-----------------------------|-------|
| | 2018 | Rs. |
| | Aug. 7 By Cash A/c | 1,980 |
| | " 7 By Discount Allowed | 20 |
| Sales Account | | |
| | 2018 | Rs. |
| | Aug 10 By Cash A/c | 5,500 |
| | Aug. 20 By Cash A/c | 950 |
| Old Newspapers Account | | |
| | 2018 | Rs. |
| | Aug. 14 By Cash A/c | 60 |
| Prasad's Account | | |
| | 2018 | Rs. |
| | Aug. 16 By Cash A/c | 985 |
| | Aug. 16 By Discount Allowed | 15 |
| Typewriter Account | | |
| 2018 | Rs. | |
| Aug. 5 To Cash A/c | 1,500 | |
| Ram Narain's Account | | |
| 2018 | Rs. | |
| Aug. 12 To Cash A/c | 2,970 | |
| Aug. 12 To Discount Received A/c | 30 | |
| Purchases Account | | |
| 2018 | Rs. | |
| Aug. 18 To Cash A/c | 1,800 | |

Tiwari's Account

| | | | | | |
|---------|----------------------|----------------------------------|-----------------|-----|--|
| 2018 | | Rs. | | | |
| Aug. 24 | To Cash A/c | 485 | | | |
| Aug. 24 | To Discount Received | 15 | | | |
| | | Rent Account | | | |
| <hr/> | | | | | |
| 2018 | | Rs. | | | |
| Aug. 30 | To Cash A/c | 500 | | | |
| | | Bank Account | | | |
| <hr/> | | | | | |
| 2018 | | Rs. | | | |
| Aug. 30 | To Cash A/c | 5,000 | | | |
| | | Discount Allowed Account | | | |
| <hr/> | | | | | |
| 2018 | | Rs. | | | |
| Aug. 31 | To Sundries A/c | 35 | | | |
| | | Discount Received Account | | | |
| <hr/> | | | | | |
| | | 2018 | | Rs. | |
| | | Aug. 31 | By Sundries A/c | 45 | |
| <hr/> | | | | | |

Check Your Progress C

1. How are the cash discount transactions normally recorded in the Cash Book?

2. A few statements are given below. Mention against each whether it is **True** or **False**.
 - a) Trade discount is not recorded in the books of account.
 - b) Cash discount can be recorded through Journal or
through Cash Book
 - c) Two Column Cash Book has an extra column for
discount on the debit side.
 - d) No posting is required in personal accounts
for cash discount
 - e) Discount columns in the Cash Book are not balanced,
they are merely totalled.
3. How do you post entries from the discount allowed and discount received columns to the Discount Allowed Account and Discount Received Account in the ledger?

6.8 PETTY CASH BOOK

In every business, there will be numerous small payments in cash such as payments for postage, telegrams, stationery, cartage, conveyance, entertaining the customers, minor repairs, etc. If all these petty payments are recorded in the cash book along with other payments, the cash book will be overloaded. Hence, a separate book called 'Petty Cash Book' is maintained for recording all such small (petty) payments.

A person called petty cashier is entrusted with the work of making the small payments and maintaining the Petty Cash Book. The sum of money given to the petty cashier for making small payments is called petty cash.

6.8.1 Imprest System

Generally, Petty Cash Book is maintained on Imprest System. Under this system, an estimate is made of the amount required for petty payments for a certain period, say a week or a month. This amount is handed over to the petty cashier in advance. The petty cashier is required to obtain vouchers for all expenses he incurs. At the end of the period, the petty cashier presents the Petty Cash Book together with the vouchers to the chief cashier. The chief cashier verifies the entries in the Petty Cash Book and pays to the petty cashier a sum equal to the amount spent by him. The original amount of the petty cash with which the petty cashier had started is thus restored.

This system of advance at the beginning and reimbursing the amount spent from time to time is called 'Imprest System'. For example, on June 1, Rs. 200 is given as advance for petty payments to the petty cashier. He spent Rs. 185 on various items during the month. The chief cashier, after verifying the expenses with the vouchers, would pay Rs 185 to him. Thus on July 1, the petty cashier would again have Rs. 200 (Rs. 185 paid by the chief cashier plus the old balance of Rs. 15), the imprest amount. This system provides an adequate check on petty payments.

6.8.2 Recording, Posting and Balancing the Petty Cash Book

Look at illustration 3. You will find only one column each for receipts, cash book folio, date, particulars, and voucher no. But, it provides a number of amount columns for recording the payments of various petty expenses. This facilitates the analysis of payments under different heads and their posting to appropriate expense account. The headings under which petty expenses are generally categorised are: (i) printing and stationery, (ii) postage and telegrams, (iii) cartage, (iv) conveyance (v) entertainment, and (vi) miscellaneous.

When the head cashier advances money to the petty cashier, either in cash or by cheque, an entry is made in the cash or bank column of the main cash book on the credit side by writing 'By Petty Cash A/c'. The petty cashier, on receiving the cash, records it in the particulars column of the Petty Cash Book by writing 'To Cash A/ c' (if cash is received) or 'To Bank A/c' (if cheque is received) and enters the amount in receipts column. When he makes payments, each payment is entered in the particulars column by writing the name of expense incurred. The amount is first entered in the total payments column and then in the column specified for the concerned expense.

The Petty Cash book is balanced periodically, say weekly or monthly. The various expense accounts in the ledger are individually debited with the periodic totals (as per Petty Cash Book) by writing 'To Petty Cash A/c'. The Petty Cash Account in the ledger is credited with the total expenditure incurred during the period by writing 'By Sundries as per Petty Cash Book'. The Petty Cash Account is then balanced. It will normally have a debit balance which will be equal to the actual cash with the petty cashier. Illustration 3 shows recording in Petty Cash Book and its posting into the ledger.

Illustration

| 2018 | | Rs. |
|------|---|--------|
| Aug | | |
| “ 1 | Received a cheque from head cashier | 250.00 |
| “ 2 | Paid to printing of letter heads | 40.00 |
| “ 4 | Purchased postal stamps | 15.00 |
| “ 5 | Paid for cartage on goods purchased | 9.00 |
| “ 7 | Paid auto fare | 6.00 |
| “ 9 | Tea expenses for customers | 4.75 |
| “ 12 | Sent telegram to Calcutta | 8.50 |
| “ 14 | Paid for stationery | 16.25 |
| “ 15 | Paid taxi fare | 12.75 |
| “ 17 | Paid for postage | 42.50 |
| “ 19 | Paid tips to office boys | 8.00 |
| “ 20 | Paid for cartage | 14.50 |
| “ 22 | Paid for cold drinks offered to customers | 6.00 |
| “ 25 | Payments made to coolies | 9.75 |
| “ 27 | Purchase of postal envelopes | 3.60 |
| “ 28 | Rickshaw charges | 3.00 |
| “ 30 | Cartage on goods purchased | 10.00 |

Balance the Petty Cash Book at the end of August and show the amount of the cheque to be issued to the petty cashier on September 1, 2018. Also show the ledger postings.

Solution

Petty Cash Book

| Receipts | Cash Book Folio No. | Date | Particulars | Voucher No. | Pay-ments | Print-ing & Sta-tion-ery | Post-age & Tele-gram | Cart-age | Conve-yance | Enter-tain-ment | Misc-lane-ous | Re-marks |
|---------------|---------------------|----------------|-----------------------|-------------|-----------|--------------------------|----------------------|----------|-------------|-----------------|---------------|----------|
| Rs. 250.00 | | 2018 Aug. 1 | To Bank A/c | | | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| | | “ 2 | By Letter heads | | 40.00 | 40.00 | | | | | | |
| | | “ 4 | By Postal stamps | | 15.00 | | 15.00 | | | | | |
| | | “ 5 | By Cartage | | 9.00 | | | 9.00 | | | | |
| | | “ 7 | By Auto fare | | 6.00 | | | | 6.00 | | | |
| | | “ 9 | By Tea expenses | | 4.75 | | | | | 4.75 | | |
| | | “ 12 | By Telegram | | 8.50 | | 8.50 | | | | | |
| | | “ 14 | By Stationery | | 16.25 | 16.25 | | | | | | |
| | | “ 15 | By Taxi fare | | 12.75 | | | | 12.75 | | | |
| | | “ 17 | By Postage | | 42.50 | | 42.50 | | | | | |
| | | “ 19 | By Tips to office boy | | 8.00 | | | | | | 8.00 | |
| | | “ 20 | By Cartage | | 14.50 | | | 14.50 | | | | |
| | | “ 22 | By Cold drinks | | 6.00 | | | | | 6.00 | | |
| | | “ 25 | By Coolies | | 9.75 | | | 9.75 | | | | |
| | | “ 27 | By Envelopes | | 3.60 | | 3.60 | | | | | |
| | | “ 28 | By Rickshaw | | 3.00 | | | | 3.00 | | | |
| | | “ 30 | By Cartage | | 10.00 | | | 10.00 | | | | |
| | | | Total Payments | | 209.60 | 56.25 | 69.60 | 43.25 | 21.75 | 10.75 | 8.00 | |
| | | “ 31 | By Balance b/d | | 40.40 | | | | | | | |
| 250.00 | | | Total | | 250.00 | L.F. | L.F. | L.F. | L.F. | L.F. | L.F. | |
| 40.40 | | Sept 1 | To Balance b/d | | | | | | | | | |
| 209.60 | | “ 1 | To Bank A/c | | | | | | | | | |

LEDGER
Petty Cash Account

Subsidiary Books

| Dr. | Rs. | 2018 | Rs. |
|---------------------|--------|---------------------------------------|--------|
| 2018 | | | |
| Aug. 1 | 250.00 | Aug. 31 | 209.60 |
| To Bank A/c | | By Sundries as per Petty Cash Book | |
| | 250.00 | “ 31 | 40.40 |
| | | By Balance c/d | 250.00 |
| Sept 1 | 40.40 | | |
| To Balance b/d | | | |
| “ 1 | 209.60 | | |
| To Bank A/c | | | |
| Bank Account | | | |

| 2018 | | | |
|--|--|-------------------|--------|
| | | Aug. 1 | 250.00 |
| | | By Petty Cash A/c | |
| | | Sept. 1 | 209.60 |
| | | By Petty Cash A/c | |
| Printing and Stationery Account | | | |

| 2018 | | | |
|-------------------------------------|--|-------------------|-------|
| | | Aug. 31 | 56.25 |
| | | To Petty Cash A/c | |
| Postage and Telegram Account | | | |

| 2018 | | | |
|------------------------|--|-------------------|-------|
| | | Aug. 31 | 69.60 |
| | | To Petty Cash A/c | |
| Cartage Account | | | |

| 2018 | | | |
|---------------------------|--|-------------------|-------|
| | | Aug. 31 | 43.25 |
| | | To Petty Cash A/c | |
| Conveyance Account | | | |

| 2018 | | | |
|------------------------------|--|-------------------|-------|
| | | Aug. 31 | 21.75 |
| | | To Petty Cash A/c | |
| Entertainment Account | | | |

| 2018 | | | |
|---------------------------------------|--|-------------------|-------|
| | | Aug. 31 | 10.75 |
| | | To Petty Cash A/c | |
| Miscellaneous Expenses Account | | | |

| 2018 | | | |
|------|--|-------------------|------|
| | | Aug. 31 | 8.00 |
| | | To Petty Cash A/c | |

6.9 WHAT IS A BANK?

You might have heard the names of State Bank of India, Andhra Bank, Allahabad Bank. You may also be having an account with some bank. Now, let us have an idea what exactly a bank is and what it does. Bank is an organisation which deals in money by accepting deposits and lending to those who need it. Accepting deposits is the primary function of a bank. It accepts demand deposits and time deposits. Demand deposits are those deposits which are payable on demand, and time deposits are those which are repayable after a specified period. The bank pays interest on the deposits (except deposits on current account).

Lending of money is another important function of a bank. It lends money to needy persons and organisations in the form of short-term advances, term loans, and overdraft facility. The bank collects interest on the amount lent.

The bank also renders various other services to its customers such as (i) collecting amounts due to the customer like interest, dividends, etc., (ii) making payments on behalf of the customer; (iii) issuing letters of credit, (iv) providing travellers cheques (v) providing safe deposit lockers for safe custody of valuables, and (vi) tarnishing guarantee on behalf of customers. etc. The bank charges some amount for the services rendered to its customer.

6.10 TYPES OF BANK ACCOUNTS

There are broadly three types of accounts: (i) savings bank account, (ii) current account, and (iii) fixed deposit account. In case of savings bank account, there are certain restrictions on the number and amount of withdrawals. It is mainly intended to encourage savings. Hence, it is not considered suitable for business purposes.

Business firms generally open current account. There are no restrictions on the number and amount of withdrawals in case of a current account. Any amount can be withdrawn any number of times from a current account.

Fixed deposit account is meant for deposits for a fixed period. Withdrawal of fixed deposits is allowed only on maturity. It is used by people generally for long term savings.

6.10.1 Advantages of Having a Bank Account

Now-a-days, every business firm has an account with a bank. The business generally retains a small sum of money with itself for immediate use and deposits the rest in a bank. The money deposited in a bank is as good as money on hand. There are various advantages of maintaining an account with the bank. These are:

1. Money is safe and it also earns some interest.
2. The bank provides various types of loans.
3. It is easy and safe to make payments by issuing cheques.
4. Money can be sent or transferred to other places at a nominal charge through a bank.
5. The bank helps in collection of bills, cheques, etc., on behalf of its customers.

- 6 If 'standing instructions' are given to the bank, it collects interest on debentures, dividend on shares, etc., and makes payment of insurance premium, pension, subscriptions, etc., on behalf of its customers.

6.10.2 How to Open and Operate a Bank Account?

If you want to open a bank account you have to apply to the bank on a prescribed form. You are also required to be introduced to the bank by a person known to the bank (possibly an account holder). The banker, after satisfying himself about the applicant, accepts the initial deposit in cash and opens an account in your name. Thus, you become a customer of the bank. Your account is given a number for easy identification. When an account is opened, the banker gives to its customer (i) a pass book, (ii) a pay-in-slip book and (iii) a cheque book.

- i) **Pass Book:** The pass book is a copy of the customer's account as maintained by the bank. In other words, it is nothing but a true copy of the transactions with the bank, as they appear in the customer's account in the bank's ledger. In case of a current account, the bank may not issue a pass book. In that case, it would furnish a statement of account from time to time. Whether it is a pass book or a statement of account, the proforma is as given in Figure 6.3.

Pass Book

| Date | Particulars | Dr. Withdrawals | Cr. Deposits | Dr. or Cr. Balance | Initials |
|------|-------------|--------------------|-----------------|-----------------------|----------|
| | | Rs. | Rs. | Rs. | |

Fig. 6.3

When an amount is deposited in the bank, it is entered in the deposit column (Cr.). When an amount is withdrawn, it is entered in the withdrawal column (Dr.). After every deposit or withdrawal, the balance is worked out and shown in the balance column in the pass book. It is also indicated whether it is a Dr. balance or a Cr. balance. Usually, the pass book shows a credit balance, which means the customer has money in his account. But when the customer has withdrawn more than what he has deposited, the pass book shows a debit balance called overdraft.

- ii) **Pay-in-Slip Book:** It contains printed forms which are used for depositing cash and cheques into the bank. Look at the form of a pay-in-slip as shown in Figure 6.4.

The first part is called counterfoil and the second part is the main pay-in-slip. When you submit it to the bank along with the amount to be deposited, the bank will stamp and sign the counterfoil and give it back to you. The main pay-in-slip is retained by the bank for further processing. The counterfoil is for your own record and future reference. The cash book entry for deposit is also made with the help of the counterfoil.

Specimen of Pay-in-Slip

| Maharani/10000/10/87 | F. No. 291 | नकद/स्थानीय/बाह्य के चेको के लिए अलग-अलग पर्ची जरूरि Please use separate slip for cash/local/out station cheques. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|-----------|--------|-------|----------|--|--|---------|--|--|---------|--|--|---------|--|--|--------|--|--|--------|--|--|--------|--|--|-------|--|--|-----------|--|--|
| बैंक ऑफ बड़ोदा. BANK OF BARODA Branch : Model Town, Delhi-110009 | | F. No. 291 शाखा पु. L. F. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ति. Date _____ 19____ बचत खाते में जमा करने के लिए For Credit of Saving A/c. सं. No. _____ नाम Name _____ रुपये (शब्दों में) Rupees _____ जमाकर्ता By _____ रु. Ra _____ | SB BANK OF BARODA Branch : Model Town, Delhi-110009 बचत खाते में जमा करने के लिए सं./No. _____ नाम/Name _____ रुपये (शब्दों में) _____ Rupees _____ जमा कर्ता By _____ | ति. Date _____ 19____ <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>नोट Notes</th> <th>₹. Rs.</th> <th>₹. P.</th> </tr> </thead> <tbody> <tr><td>.. x 100</td><td></td><td></td></tr> <tr><td>.. x 50</td><td></td><td></td></tr> <tr><td>.. x 20</td><td></td><td></td></tr> <tr><td>.. x 10</td><td></td><td></td></tr> <tr><td>.. x 5</td><td></td><td></td></tr> <tr><td>.. x 2</td><td></td><td></td></tr> <tr><td>.. x 1</td><td></td><td></td></tr> <tr><td>₹. P.</td><td></td><td></td></tr> <tr><td>कुल Total</td><td></td><td></td></tr> </tbody> </table> | नोट Notes | ₹. Rs. | ₹. P. | .. x 100 | | | .. x 50 | | | .. x 20 | | | .. x 10 | | | .. x 5 | | | .. x 2 | | | .. x 1 | | | ₹. P. | | | कुल Total | | |
| नोट Notes | ₹. Rs. | ₹. P. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| .. x 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| .. x 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| .. x 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| .. x 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| .. x 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| .. x 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| .. x 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ₹. P. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| कुल Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| दर्ज किया Ent. से. Acctt. व. Cashier - | दर्ज किया Entered सेवापास Acctt. | शर्जीबी Cashier Less Com/Ex. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Fig. 6.4

iii) **Cheque Book:** A cheque book contains a number of leaves (10 to 20 or 50 leaves) called cheques. A cheque is an instrument used for withdrawing money from the bank. It is an unconditional order on the bank made by its customer, instructing the bank to pay the amount specified therein to the person named in the cheque or to his order. The person who draws a cheque is called 'drawer'. The bank on whom the cheque is drawn is called 'drawee'. The person in whose favour the cheque is drawn (or to whom it is payable) is called 'payee'.

Look at Figure 6.5 for specimen of a cheque. In this cheque, Mr. S. Jain is the drawer. He has drawn and signed the cheque. The Bank of Baroda on whom the cheque is drawn, is the drawee. Mr. P. Ram Dev is the payee as the cheque is payable to him.

While writing a cheque, care must be taken to write the date, the name of the party to whom payment has to be made, and the amount to be paid both in words and figures. It must be signed by the account holder. The signature on the cheque must tally with the specimen signature which the bank has.

A cheque can be a bearer cheque or an order cheque. In case of a bearer cheque, the bank pays the amount to any person who presents it at the counter of the bank without much fuss. But, in case of an order cheque, identification of the party claiming payment is necessary, specially if he wants payment at the counter.

Specimen of Cheque

| | |
|---|--|
| PAY <u>P. Ram Dev</u> | 1-10-1987 |
| ₹ IN WORDS <u>One thousand only</u> | ₹ IN FIGURES <u>₹. 1,000/-</u> |
| बैंक ऑफ बड़ोदा Bank of Baroda विशाखा एन्क्लेव, दिल्ली-110014 Vishaka Enclave, DELHI-110014 | वा शर्जीबी OR BEARER <u>S. Jain</u> |
| VEN / CA. 86 *008650* 100120331 | |

Fig. 6.5

6.11 CROSSING OF CHEQUES

If two parallel lines are drawn on the left hand top corner of the cheque, it is called 'Crossing', and such a cheque is called a 'Crossed Cheque'. A crossed cheque cannot be encashed directly at the counter. It has to be deposited in an account with a bank. This makes it safe, as the party to whom the payment is made can be easily identified.

Crossing can be 'General Crossing' or 'Special Crossing'. General crossing is one where two parallel lines are drawn across the cheque with or without the words '&Co.', 'Not Negotiable', 'A/c Payee' as shown in Figure 6.6. In case of special crossing, the name of a particular bank is also mentioned. This implies that the amount of cheque is payable only to the bank named in the crossing. Look at Figure 6.6. The name of 'Bank of Baroda, Agra' is written within the two parallel lines. Payment of this cheque can be collected only through Bank of Baroda, Agra.

Crossing of a Cheque

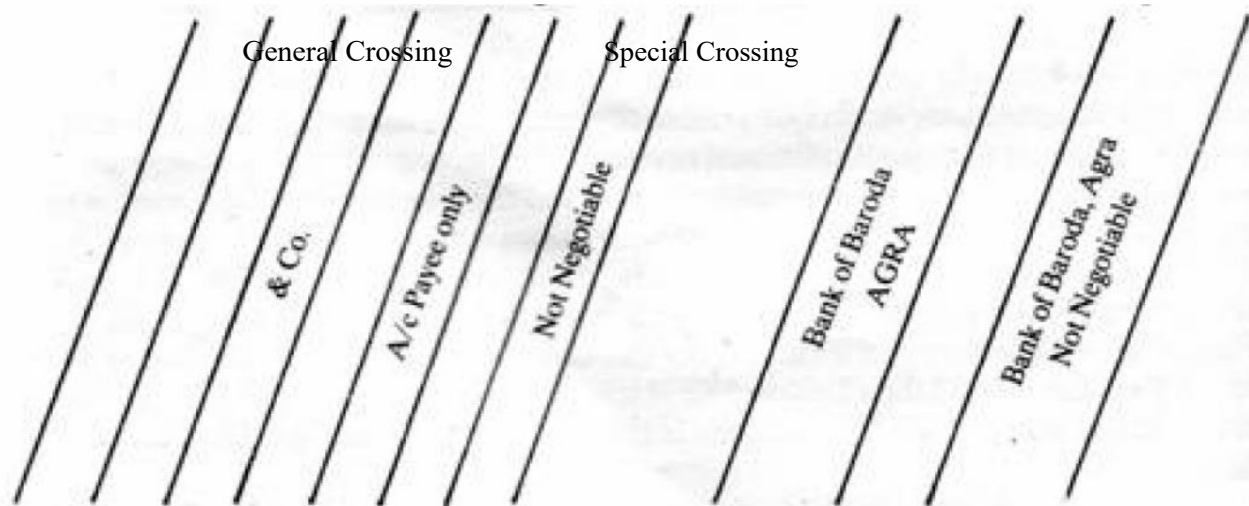


Fig. 6.6

In case of general crossing, payment can be made to any bank which present the cheque for payment. The use of words 'A/c Payee Only' means that the cheque can be paid only into the account of the payee named in the cheque. The words 'Not Negotiable' provide further safeguard against stolen and forged cheques. But '& Co.' has no special connotation.

6.12 ENDORSEMENT AND DISHONOUR OF CHEQUES

A cheque is a negotiable instrument. It can be transferred to another person by 'endorsement' (except in case of a bearer cheque which can be transferred by mere delivery). The endorsement is done by signing at the back of the cheque and writing the name of the party to whom it is to be transferred. For example, if a cheque payable to Mr. P. Ram Dev is to be endorsed in favour of Mr. Kishan Lal, Mr. P. Ram Dev will write at the back of the cheque as follows:

Pay to Kishan Lal or Order

P. Ram Dev

(Signature)

Thus, endorsement can be defined as signing at the back of the cheque for the purpose of negotiation. The person who endorses the cheque is called endorser (P. Ram Dev in this example) and the person to whom it is endorsed is called endorsee (Kishan Lal in this example). Kishan Lal can now collect payment of this cheque.

Dishonour of Cheques :When a cheque is presented for payment, there are two possibilities. It may be paid or the payment may be refused. When the payment of a cheque is refused, it is said to be dishonoured. The bank refuses the payment for the following reasons:

1. When no date is written on the cheque, or a future date is written, or it is more than three months old.
2. If the amount written in words differs from the amount written in figures.
3. When the cheque is not signed or when the signature on the cheque does not tally with the specimen signature with the bank.
4. When the drawer does not have sufficient balance in his account.
5. When the drawer requests the bank in writing to stop payment on that cheque.
6. If the bank has come to know about the death of the drawer or his becoming insolvent or insane.

Check Your Progress D

1. List the main functions of a bank.

.....
.....
.....

2. What is a pass book?

.....
.....
.....

3. What is a pay-in-slip?

.....
.....
.....

4. What is a cheque ?

.....
.....
.....

5. What do you mean by crossing a cheque?

.....
.....
.....

.....

.....

.....

6.13 THREE COLUMN CASH BOOK

Generally, business firms deposit the day's collections in a bank, retaining only a small amount for immediate use. They prefer to make payment by cheque as it is more safe and convenient. So, bank transactions are more numerous than cash transactions.

The bank transactions can also be recorded in the cash book along with cash transactions. It is done by providing an additional column for bank on both sides of the cash book. Look at the proforma of a Three Column Cash Book in Figure 6.7.

A bank column in the cash book, also serves the purpose of a bank account and avoids the need to have a 'Bank Account' in the ledger. The bank column on the debit side records all deposits made in the bank and the bank column on the credit side records all withdrawals from the bank. We shall now have three amount columns, one each for discount, cash and bank. Hence, it is called a Three Column or Triple Column Cash Book.

Three Column Cash Book

| Dr. | | | | | | Cr. | | | | | |
|------|-------------|------|------------------|------|------|------|-------------|------|-------------------|------|------|
| Date | Particulars | L.F. | Discount Allowed | Cash | Bank | Date | Particulars | L.F. | Discount Received | Cash | Bank |
| | | | Rs. | Rs. | Rs. | | | | Rs. | Rs. | Rs. |
| | | | | | | | | | | | |

Fig. 6.7

6.13.1 Recording in Three Column Cash Book

All receipts of cash or cheques are to be recorded on the debit side:

When payment is received in cash, the amount is recorded in the cash column. If it is by cheque, it is recorded in the bank column. The date on which it is received, and the name of the person from whom it is received, are recorded in the date and particulars columns respectively.

If any discount is allowed to a party on receipt of cash or cheque, it is recorded on the debit side in the discount allowed column as usual.

All cash and cheque payments are to be recorded on the credit side: When payment is made by cash, the amount is recorded in the cash column. If it is made by cheque, it is recorded in the bank column. The date on which payment is made, and the name of the person to whom payment is made, are recorded in the date and particulars columns respectively,

Discount received, if any, at the time of making payment is to be recorded on the credit side in the discount received column as usual.

Contra Entry: The word ‘contra’ means ‘the other side’. If the double entry of a transaction is complete in the cash book itself such entry is called ‘contra entry’. Contra entry arises only when cash account and bank account are simultaneously involved in a transaction. It happens only when either cash is deposited in the bank or cash is withdrawn from it. In both cases, entries have to be made in cash as well as bank columns. When cash is deposited in the bank, it is recorded (i) in bank column on the debit side of the cash book, and (ii) in cash column on the credit side of the cash book. Similarly, when cash is withdrawn from the bank, it is recorded on the (i) debit side in cash column, and (ii) on the credit side in bank column. It must, however, be noted that if cash is withdrawn from bank for personal use of the owner, it is recorded only on the credit side of cash book in bank column as drawings.

In order to denote contra entries, the capital letter ‘C’ is written in the L.F. column on both sides of the cash book. It means that the corresponding aspect of the transaction is entered on the other side (contra) of the same page of the cash book. The letter ‘C’ also indicates that the relevant entry need not be posted into the ledger, as the double entry is complete in the cash book itself.

6.13.2 Posting the Three Column Cash Book

All the entries recorded in the Three Column Cash Book are to be posted to their respective ledger accounts, except the contra entries. For posting the entries recorded on the debit side of the cashbook, credit the accounts concerned in the ledger by writing ‘By Cash A/c’ if the entry is in cash column, and ‘By Bank A/c’ if the entry is in bank column. If discount is also involved, credit the concerned personal account by writing ‘By Discount Allowed A/c’. Totals of the discount allowed and discount received columns shall be posted to the respective discount accounts the same way as for Two Column Cash Book.

6.13.3 Balancing the Three Column Cash Book

The cash and bank columns are balanced separately like any other ledger account. As stated earlier, the Cash Account always shows a debit balance. The bank account also normally shows a debit balance. But, sometimes it may show a credit balance which indicates a bank overdraft. It reflects the amount withdrawn from the bank in excess of what is deposited in the bank.

The procedure of recording the closing and opening balances is the same as in Two Column Cash Book. Note that the discount columns will not be balanced. They are simply totalled.

Study illustration carefully. You will follow the recording, posting and balancing of a Three Column Cash Book.

Illustration

Enter the following transactions in the Three Column Cash Book of Galaxy Enterprises and show the ledger postings:

| 2018 | | |
|---------|--|-------|
| July 15 | Cash in hand | 800 |
| “ 15 | Balance in bank account | 4,500 |
| “ 16 | Purchased goods and issued cheque | 3,000 |
| “ 17 | Cash sales | 4,000 |
| “ 18 | Received from Saniad in full settlement of his account Rs.4,000 cheque | 2,000 |
| | cash | 1,950 |
| “ 20 | Cash deposited into bank | 5,000 |
| “ 21 | Paid Rama Krishna by cheque | 2,970 |
| | Received discount | 30 |
| “ 22 | Received from Bose | 1,680 |
| | Discount allowed | 20 |
| “ 24 | Cash withdrawn for office purpose | 2,000 |
| “ 25 | Paid Mahantha in cash | 3,000 |
| | Discount allowed by him | 40 |
| “ 26 | Paid for stationery | 100 |
| “ 28 | Deposited cash into bank | 2,000 |
| “ 30 | Cash withdrawn from bank for personal use of proprietor | 500 |

Solution :

Joshi & Sons
Cash Book (With Discount and Cash Columns)

| Rs. | | | | | Rs. | | | | | |
|---------|----------------|------|------------------|---------------|---------|-------------------|------|-------------------|--------|--------|
| Date | Particular | I.F. | Discount Allowed | Cash | Date | Particular | I.F. | Discount Received | Cash | Bank |
| 2018 | | | | Rs. Rs. | 2018 | | | Rs. | Rs. | |
| July.15 | To Balance c/d | | | 800 4,500 | July 16 | By Purchase A/c | | | | 3,000 |
| “ 17 | To Sales A/c | | | 4,000 | “ 20 | By Bank A/c | C | | 5,000 | |
| “ 18 | To Samad | | 50 | 1,950 2,000 | “ 21 | By Rama Krishna | | 30 | 2,970 | |
| “ 20 | To Cash A/c | C | | 5,000 | “ 24 | By Cash A/c | C | | 2,000 | |
| “ 22 | To Bose | | 20 | 1680 | “ 25 | By Mahanta | | 40 | 3000 | |
| “ 24 | To Bank A/c | C | | 2,000 | “ 26 | By Stationery A/c | | | 100 | |
| “ 28 | To Cash A/c | C | | 2,000 | “ 28 | By Bank A/c | C | | 2,000 | |
| | | | | | “ 30 | By Drawings A/c | | | | 500 |
| | | | | | “ 31 | By Balance c/d | | | 330 | 5,030 |
| | | | 70 | 10,430 13,500 | | | | 70 | 10,430 | 13,500 |
| Aug. 1 | To Balance b/d | | | 330 5030 | | | | | | |

LEDGER**Sales Account**

| 2018 | |
|---------|--------------------|
| July 17 | By Sales A/c 4,000 |

Sanad's Account

| | | | | | |
|--|--|--|---------|---------------------|-------|
| | | | 2018 | | |
| | | | July 18 | By Discount Allowed | 50 |
| | | | " 18 | By Cash A/c | 1,950 |
| | | | " 18 | By Bank A/c | 2,000 |

Bank Account

| | | | | | |
|--|--|--|---------|---------------------|-------|
| | | | 2018 | | |
| | | | July 22 | By Discount Allowed | 20 |
| | | | " 22 | By Cash A/c | 1,680 |

Purchase Account

| | | | | | |
|---------|-------------|--|-------|--|--|
| 2018 | | | | | |
| July 16 | To Bank A/c | | Rs. | | |
| | | | 3,000 | | |

Rama Krishna's Account

| | | | | | |
|---------|---------------------|--|-------|--|--|
| 2018 | | | | | |
| July 21 | To Discount allowed | | Rs. | | |
| | | | 30 | | |
| " 21 | To Bank A/c | | 2,970 | | |

Mahendra's Account

| | | | | | |
|---------|--------------------------|--|-------|--|--|
| 2018 | | | | | |
| July 25 | To Discount Received A/c | | Rs. | | |
| | | | 40 | | |
| " 25 | To Cash A/c | | 3,000 | | |

Stationery Account

| | | | | | |
|---------|-------------|--|-----|--|--|
| 2018 | | | | | |
| July 26 | To Cash A/c | | Rs. | | |
| | | | 100 | | |

Drawings Account

| | | | | | |
|---------|-------------|--|-----|--|--|
| 2018 | | | | | |
| July 30 | To Bank A/c | | Rs. | | |
| | | | 500 | | |

Discount Allowed Account

| | | | | | |
|---------|---------------------------------|--|-----|--|--|
| 2018 | | | | | |
| July 31 | By Sundries as per Cash book | | Rs. | | |
| | | | 70 | | |

Discount Received Account

| | | | | | |
|--|--|--|---------|---------------------------------|----|
| | | | 2018 | | |
| | | | July 31 | By Sundries as per Cash book | 70 |

In illustration 4, you will notice that the total of bank column on the debit side is more than the total of bank column on the credit side of the cash book. This indicates that there is money in the bank. If, however, the total of bank column on the debit side is less than the total on the credit side, it will reflect an overdraft in the bank. You will find this in Illustration .

6.13.4 Special Points Regarding Cheques Received

Generally, cheques received from various parties are deposited in the bank on the same day. However, for some reason, if a cheque is not sent to the bank on the day of receipt, it can be entered in the cash column, treating the cheque as cash. Then, the day it is sent to the bank, it can be recorded in the cash book as cash deposit in the bank in the form of a contra entry. For example, on April 8, a cheque for Rs. 500 is received from Rao and it is sent to the bank on April 11. The entries in cash book will appear as follows:

Banking Transactions and Three Column Cash Book

Cash Book (Cash and Bank Column only)

| Dr. | | | | | Cr. | | | | |
|----------------|-------------|------|------|------|-----------------|-------------|------|------|------|
| Date | Particulars | L.F. | Cash | Bank | Date | Particulars | L.F. | Cash | Bank |
| | | | Rs. | Rs. | | | | Rs. | Rs. |
| 2018 Apr. 8 | To Rao | | 500 | | 2018 Apr. 11 | By Bank a/c | C | 500 | |
| “ 11 | To Cash A/c | C | | 500 | | | | | |

Normally, this procedure is avoided. The entry is made directly in the bank column on the day the cheque is deposited in the bank. In the absence of any specific instructions, it can be presumed that the cheque received from a party was sent to the bank for collection on the same day.

Sometimes, a cheque received by the firm may not be deposited in the bank but may be endorsed to a third party. In that case, the cheque received will be recorded first in the cash column on the debit side of the cash book and then on its credit side in the cash column. This ensures entries in the personal accounts of (i) the party from whom it is received, and (ii) the party to whom it is endorsed. For example, on April 12, a cheque for Rs. 800 was received from Ganpati and it was endorsed on April 14, in favour of Shiva, a creditor of the firm. The entries in cash book will appear as follows:

Cash Book (Cash Column only)

| Dr. | | | | Cr. | | | |
|-----------------|-------------|------|------------|-----------------|--------------|------|------------|
| Date | Particulars | L.F. | Amount | Date | Particulars | L.F. | Amount |
| 2018 Apr. 12 | To Ganpati | | Rs. 800 | 2018 Apr. 14 | By Shiva a/c | | Rs. 800 |

Sometimes, a cheque sent to the bank for collection may be dishonoured. In that case, the bank will return the cheque along with the advice stating the cause of dishonour. Whatever the firm may do to realise its payment from the concerned

party, the entry for dishonour of the cheque must immediately be recorded in the cash book. The entry will be made on the credit side in bank column. This nullifies the effect of the entry made earlier at the time of receiving and depositing the cheque in the bank. For example, on April 16, a cheque for Rs. 750 was received from Yogesh and sent to bank for collection on the same day. The bank dishonoured the cheque and returned it on April 20. The entries in the cash book will appear as follows:

Cash Book
(Bank Column only)

Dr.

Cr.

| Date | Particulars | L.F. | Amount | Date | Particulars | L.F. | Amount |
|-----------------|-------------|------|------------|-----------------|-------------|------|------------|
| 2018 Apr. 16 | To Yogesh | | Rs. 750 | 2018 Apr. 20 | By Yogesh | | Rs. 750 |

Check Your Progress E

Fill in the blanks.

1. All deposits into the bank are recorded in bank column on the..... side of the cash book.
2. All withdrawals from the bank are recorded in bank column on the side of the cash book.
3. If debit as well as the credit aspects of a transaction are recorded in the cash book itself it is called.....
4. When a cheque received on a particular date is not deposited the same day into bank, it is entered in column on the debit side of the cash book.
5. When a cheque received is endorsed, it is recorded in cash column on..... sides of the cash book.
6. When a cheque is returned dishonoured, it is recorded on the..... side of the cash book in bank column.

Illustration

Record the following transactions in Three Column Cash Book of Balaji Agencies and balance the same.

| | Rs. |
|--|--------------|
| 2018 | |
| July 1 Cash in hand | 40,000 |
| “ 2 He opened a current account with a bank | 36,000 |
| “ 3 Purchased goods for cash and by cheque | 600 1,500 |
| “ 5 Sold goods for cash | 800 |
| “ 6 Sold goods to Mohan and received a cheque for the same | 1,200 |
| “ 8 Deposited Mohan’s cheque in the bank | 1,200 |
| “ 9 Purchased stationery by cheque | 200 |
| “ 10 Cash sales | 2,000 |

| | |
|---|----------------|
| “ 11 Issued cheque for cash purchase of furniture to Woodland | 2,500 |
| “ 12 Deposited cash in the bank | 3,000 |
| “ 13 Misra paid directly into bank account | 1,000 |
| “ 15 Received from Madhu cash cheque | 1,000 1,400 |
| Allowed him discount | 50 |
| “ 16 Paid to Ravi in cash cheque | 500 2,500 |
| Received discount | 40 |
| “ 17 Received a cheque from Joseph | 1,500 |
| “ 18 Withdrew cash from the bank for office use | 1,500 |
| “ 20 Balaji paid his son’s college fees in cash | 400 |
| “ 22 Paid Subhan & Co. by cheque | 975 |
| Received discount | 25 |
| “ 24 Joseph’s cheque returned dishonoured | 1,500 |
| “ 25 Received a cheque from Gagan. It was endorsed to Ram | 700 |
| “ 26 Withdrew from bank for personal use | 1,600 |
| “ 27 Issued cheque for purchase of machinery | 40,000 |
| “ 28 Paid sundry expenses in cash | 200 |
| “ 30 Paid rent by cheque | 600 |
| “ 31 Deposited Cash in excess of | 500 |

Balaji Agencies Cash Book

| Date | Particulars | L.F. | Discount Allowed | Cash | Bank | Date | Particulars | L.F. | Discount Received | Cash | Bank |
|--------|----------------|------|------------------|--------|--------|--------|-------------------|------|-------------------|--------|--------|
| 2018 | | | Rs. | Rs. | Rs. | 2018 | | | Rs. | Rs. | Rs. |
| July 1 | To Balance b/d | | | 40,000 | | July 2 | By Bank A/c | C | | 36,000 | |
| “ 2 | To Cash A/c | C | | | 36,000 | “ 3 | By Purchases A/c | | | 600 | 1,500 |
| “ 5 | To Sales A/c | | | 800 | | “ 8 | By Bank A/c | C | | 1,200 | |
| “ 6 | To Sales A/c | | | 1,200 | | “ 9 | By Stationery A/c | | | | 200 |
| “ 8 | To Cash A/c | C | | | 1,200 | “ 11 | By Furniture A/c | | | | 2,500 |
| “ 10 | To Sales A/c | | | 2,000 | | “ 12 | By Bank A/c | C | | 3,000 | |
| “ 12 | To Cash A/c | C | | | 3,000 | “ 16 | By Ravi | | 40 | 500 | 2,500 |
| “ 13 | To Misra | | | 1,000 | | “ 18 | By Cash A/c | C | | | 1,500 |
| “ 15 | To Madhu | | 50 | 1,000 | 1,400 | “ 20 | By Drawings A/ c | | | 400 | |
| “ 17 | To Joseph | | | | 1,500 | “ 22 | By Subhan & Co | | 25 | | 975 |
| “ 18 | To BankA/c | C | | 1,500 | | “ 24 | By Joseph | | | | 1,500 |
| “ 25 | To Gagan | | | 700 | | “ 25 | By Ram | | | 700 | |
| “ 31 | To Cash A/c | C | | | 4,100 | “ 26 | By Drawings A C | | | | 1,600 |
| “ 31 | To Balance c/d | | | | 4,675 | “ 27 | By Machinery A/c | | | | 40,000 |
| | | | | | | “ 28 | By Sundry exp.A/c | | | 200 | |
| | | | | | | “ 30 | By Rent A/c | | | | 600 |
| | | | | | | “ 31 | By Bank A/c | C | | 4,100 | |
| | | | | | | “ 31 | By Balance c/d | | | 500 | |
| | | 50 | 47,200 | 52,875 | | | | 65 | 47,200 | 52,875 | |
| Aug.1 | To Balance b/d | | | 500 | | Aug.1 | By Balance b/d | | | | 4,675 |

Note :

1. When cheques are received from parties, unless otherwise specified, it is assumed that they are deposited in the bank on the same day. But, in case of the transaction dated July 6, the cheques was received on July 6, but was deposited in the bank on July 8. Hence on July 6, it is recorded as the cash column on the debit side, and on July 8, it is shown as cash deposit through a contra entry.
2. On July 17, Joseph gave a cheque for Rs. 1,500 which was duly entered on the debit side. On July 24, the cheque was returned dishonoured. When a cheque is dishonoured, the rule is to reverse the entry made earlier. Hence, on July 24, an entry has been passed on the credit side in the bank column. This nullifies the entry made on July 17.
3. On July 25, a cheque was received from Gagan which was endorsed to Ram. It has been first entered in the cash column on the debit side on July 25, and then on the credit side on the same date.
4. The credit side total of the bank column is Rs 52,875 and the debit side total is Rs 48,200. It means that there is a credit balance of Rs. 4,675 in the bank account. As you know this is a case of overdraft. On July 31, it has been shown on the debit side of the cash book making two sides equal, and then on August 1, it is recorded on the credit side of the bank column.

6.14 PURCHASES JOURNAL

While studying sub-division of journal, you learnt that Purchases Journal is used for recording credit purchases of goods and raw materials. The goods or raw materials can be purchased either on cash basis or on credit basis. When they are purchased on cash basis, the entry is made in the cash book. But when they are purchased on credit, they are recorded in the Purchases Journal. Note that the credit purchases of fixed assets like typewriter, vehicle, etc., are not recorded in this book. They are recorded in Journal Proper about which you will learn later. The Purchases Journal is also called 'Purchases Book', 'Purchases Day Book', and 'Invoice Book'.

6.14.1 Invoice

When you purchase something from a shop, you receive a bill Such bill is called 'invoice'. It contains the details pertaining to the quantity, description, price, total amount, and trade discount, if any. Thus, an invoice is a business document giving full details of the goods purchased. It is a 'Purchase Invoice' or 'Inward invoice' for the purchaser and a 'Sales Invoice' or 'Outward Invoice' for the seller. Entries in the Purchases Journal are made on the basis of the purchase invoices received (inward invoices). Look at Figure 6.8 for a specimen of an invoice.

| Invoice | | | |
|--|--|-----------------|---------------|
| Book Lovers Private Limited Hyderabad | | | |
| No.3891 | | Date: 15-7-2018 | |
| To M/s. Book Paradise, Nagpur | | | |
| Quantity | Particulars | Rate per unit | Total |
| 10 Copies | Principles and Practice of Accountancy by R. Srirani Less: Discount 10% (Rupees two hundred and twenty five only) | Rs. 25.00 | Rs. 250.00 |
| | | | 25.00 |
| | | | 225.00 |
| xxxxx For Book Lovers Private Limited | | | |

Fig. 6.8

6.14.2 Recording in the Purchases Journal

Look at Figure 6.9. It shows the Proforma of a Purchases Journal.

| Purchases Journal | | | | | |
|--------------------------|----------------------|-----------------------|------|--------|---------|
| Date | Name of the supplier | Inward invoice Number | L.F. | Amount | Remarks |
| (1) | (2) | (3) | (4) | (5) | (6) |
| | | | | Rs. | |

Fig. 6.9

The Purchases Journal has six columns.

Column 1: It is meant for writing the date of purchase.

Column 2: In this column, you write the name and address of the supplier.

Column 3: The inward invoice number is recorded in this column. As stated earlier, when you purchase goods on credit, you get an invoice from the supplier. Although it bears a number, you have to accord your own serial numbers to all inward invoices for easy reference. It is this serial number which will be entered in the inward invoice column of the Purchase Journal.

Column 4: In this column, you will write the page number of the account in ledger where posting is done.

Column 5: In this column, the amount payable to the supplier is recorded. You must note that the amount payable is arrived at after deducting the trade discount, if any. For example, see the invoice given in Figure 6.8. The amount payable is Rs. 225. If, some sales tax is also involved, the amount payable should include that also.

Column 6: Any other relevant information is to be recorded in this column. Information such as the date on which the amount of the bill is payable and the date on which it is actually paid may be noted in this column.

6.14.3 Posting the Purchases Journal

The transactions recorded in the Purchases Journal are to be posted to their respective personal accounts in the ledger. When a purchase is made on credit, the supplier becomes the creditor for the firm. Hence, every credit purchase recorded in the Purchases Journal is posted on the credit side of the personal account of the supplier by writing 'By Purchases A/c' in particulars column. The Purchases Journal is totalled periodically, say, weekly or monthly. This total is posted to the debit side of Purchases Account in the ledger by writing 'To Sundries—as per Purchases Journal'.

Thus, you observe that posting of Purchases Journal involves two steps: (i) posting each purchase to the credit of the respective personal accounts of suppliers, and (ii) posting the total purchases to the debit of the Purchases Account. With this, double entry for credit purchases is complete. Look at illustration for recording the Purchases Journal and its posting into ledger.

Illustration

Record the following transactions in the Purchases Journal of M/s. Dharam Chand & Co., and show the ledger postings.

| 2018 | Rs. |
|--|-------|
| July 1 Bought goods from Shreedhar | 5,000 |
| “ 2 Purchased goods from Shreekant | 4,000 |
| “ 3 Purchased from Shreenivas goods worth | 2,500 |
| “ 4 Shreedhar sold us goods | 1,500 |
| “ 5 Purchased goods from Shreenivas subject to a trade discount of 10% | 3,000 |
| “ 6 Bought from Shreekant goods worth with discount of 20% | 3,500 |

Dharam Chand & Co. PURCHASES JOURNAL

| Date | Name of the supplier | Inward invoice number | L.F. | Amount | Remarks |
|--------|----------------------|-----------------------|------|--------------|---------|
| 2018 | Shreedhar | 25 | | Rs. 5,000 | |
| July 1 | Shreekant | 26 | | 4,000 | |
| “ 2 | Shreenivas | 27 | | 2,500 | |
| “ 3 | Shreedhar | 28 | | 1,500 | |
| “ 4 | Shreenivas | 29 | | 2,700 | |
| “ 5 | Shreekant | 30 | | 2,800 | |
| “ 6 | Total | | | 18,500 | |

Note: i) The inward invoice numbers are imaginary.

ii) Sometimes, the particulars of items purchased can also be given with each entry.

But it is considered unnecessary because the details are available in the invoice, the serial numbers of which are duly given in the Purchases Journal.

LEDGER

Shreedhar's Account

| Dr. | | | | | Cr. |
|-----|--|--|--------|------------------|-------|
| | | | 2018 | | Rs. |
| | | | July 1 | By Purchases A/c | 5,000 |
| | | | “ 4 | By Purchases A/c | 1,500 |

Shreekant's Account

| | | | | | |
|--|--|--|--------|------------------|-------|
| | | | 2018 | | Rs. |
| | | | July 2 | By Purchases A/c | 4,000 |
| | | | “ 6 | By Purchases A/c | 2,800 |

Shreenivas's Account

| | | | | | |
|--|--|--|--------|------------------|-------|
| | | | 2018 | | Rs. |
| | | | July 3 | By Purchases A/c | 2,500 |
| | | | “ 5 | By Purchases A/c | 2,700 |

Purchases Account

| | | | | | |
|----------|---------------------------------------|--------|--|--|--|
| 2018 | | Rs. | | | |
| July, 31 | To Sundries - as per Purchase Journal | 18,500 | | | |

6.15 PURCHASES RETURNS JOURNAL

In any business, sometimes goods purchased may have to be returned to the supplier either partly or fully. This may become necessary when they are found to be defective, damaged in transit, inferior quality, short weight, received too late (off season), or not in conformity with the order given. If the number of such returns is small, they can be recorded in the journal itself. But, if it is large, a separate book called 'Purchases Returns Journal' should be used for recording these transactions. This book is also called 'Returns Outwards Journal'.

6.15.1 Debit Note

When you return goods to supplier, a statement called 'Debit Note' is sent to the supplier. It informs the supplier that his account has been debited to the extent of the value of goods returned. You know that when goods were purchased, the supplier's account was credited. Debiting his account now means that the amount payable to him has been reduced by the value of goods returned. The debit note also contains other particulars such as the name and address of the supplier, the description of the goods returned, etc. The specimen of a debit note is shown in Figure 6.10.

Debit Note

| Book Paradise Nagpur Debit Note | | | |
|---|---------------|-----|---------|
| No. 587 | Date: 20-7-18 | | |
| To | | | |
| M/s. Book Lovers Pvt. Ltd. Hyderabad. | | | |
| WE HAVE DEBITED YOUR ACCOUNT FOR | | | |
| GOODS RETURNED AS FOLLOWS | | | |
| | Rs. | Ps. | Rs. Ps. |
| 2 Copies of 'Principles and Practice of Accountancy' by | | | |
| Sriram @ Rs, 25 each | 50.00 | | |
| Less: Trade discount allowed by you @ 10% | 5.00 | | |
| (Rupees forty five only) | | | 45.00 |
| xxxxx For Book Paradise | | | |

Fig. 6.10

6.15.2 Recording in the Purchases Journal

Look at Figure 6.11. It shows the Proforma of a Purchases Returns Journal.

Purchase Returns Journal

| Date | Name of the supplier | Inward invoice Number | L.F. | Amount | Remarks |
|------|----------------------|-----------------------|------|--------|---------|
| (1) | (2) | (3) | (4) | (5) | (6) |
| | | | | Rs. | |

Fig. 6.11

Like the Purchase Journal, the Purchases Returns Journal also has six columns. As usual, the date on which the goods are returned is recorded in the first column. The name and address of the supplier to whom goods are returned are entered in the second column. Write the serial number of the debit note in the third column. The page number of the account in the ledger where posting is done will be entered in the L.F. column. In the fifth column, the value of goods returned is entered. At the time of original purchase, if some trade discount had been given, the same should also be adjusted so as to arrive at the value of goods returned. If there is any other relevant information, the same may be recorded in the remarks column.

6.15.3 Posting the Purchases Returns Journal

The transactions recorded in the Purchases Returns Journal are to be posted to their respective personal accounts in the ledger. Separate accounts in the name of each supplier already exists in the ledger (opened at the time of purchase). The entries made in the Purchases Returns Journal will be posted to the debit of each supplier's account by writing 'To Purchases Returns A/c'.

The total of the Purchases Returns Journal is posted to the credit side of the Purchases Returns Account' in the ledger by writing 'By Sundries—as per Purchases Returns Journal'.

Look at illustration for the procedure of recording in the Purchases Returns Journal and its posting into the ledger.

Enter the following transactions in the Purchases Returns Journal of M/s. Dharam Chand and Co. and show the ledger postings.

| | | |
|--------|--|-----|
| 2018 | | Rs. |
| July 5 | Returned goods to Shreekant (vide invoice No. 26) | 200 |
| “ 10 | Returned goods to Shreenivas (vide invoice No. 29) | 90 |
| “ 12 | Returned goods to Shreekant (vide invoice No. 30) | 120 |

Dharam Chand & Co.

PURCHASES RETURNS JOURNAL

| Date | Name of the supplier | Debit note number | L.F. | Amount | Remarks |
|--------|----------------------|-------------------|------|--------|---------|
| 2018 | | | | Rs. | |
| July 5 | Shreekant | 16 | | 200 | |
| “ 10 | Shreenivas | 17 | | 90 | |
| “ 12 | Shreekant | 18 | | 120 | |
| “ 31 | Total | | | 410 | |
| - | | | | ----- | |

Note : Debit Note numbers are imaginary.

LEDGER

Shreekant's Account

| 2018 | | Rs. | 2018 | Rs. | |
|--------|-------------------------|-----|--------|------------------|-------|
| July 5 | To Purchases Return A/c | 200 | July 2 | By Purchases A/c | 4,000 |
| “ 12 | To Purchases Return A/c | 120 | “ 6 | By Purchases A/c | 2,800 |

Shreenivas's Account

| | | | | | |
|---------|-------------------------|-----|--------|------------------|-------|
| 2018 | | Rs. | 2018 | | Rs. |
| July 10 | To Purchases Return A/c | 90 | July 3 | By Purchases A/c | 2,500 |
| | | | " 5 | By Purchases A/c | 2,700 |

Purchase Returns Account

| | | | | | |
|--|--|--|---------|---|-----|
| | | | 2018 | | Rs. |
| | | | July 31 | By Sundries – as per Purchase Returns Journal | 410 |

6.16 SALES JOURNAL

This book is used for recording only the credit sales of goods. Note that the cash sale of goods or sale of fixed assets (cash or credit) are not recorded in this book. The Sales Journal is also called 'Sales Day Book', or 'Sales Book'.

6.16.1 Recording in the Sales Journal

The ruling of the Sales Journal is similar to that of Purchases Journal. The difference is only with regard to the second column. In Purchases Journal, the second column is used for recording the name of the supplier. But, in case of Sales Journal, it is used for writing the name of the customer.

When goods are sold on credit, an invoice is given to the buyer. The seller generally has a bound invoice book. It contains consecutively numbered invoices in duplicate. While the original copy is given to the buyer, the duplicate remains in the book itself. The entries in the Sales Journal are made with the help of the duplicate copies which are duly numbered. The procedure for recording in the Sales Journal is similar to that of the Purchases Journal.

6.16.2 Posting the Sales Journal

All entries made in the Sales Journal are posted to the respective personal accounts in the ledger. In a credit sale, the customer becomes a debtor to the firm. Hence, every credit sale recorded in the Sales Journal is posted on the debit side of the personal account of individual customers by writing 'To Sales A/c' in particulars column. Then, the total of the Sales Journal is posted on the credit side of the Sales Account by writing 'By Sundries—as per Sales Journal'.

Look at illustration and study how credit sales of goods are recorded in the Sales Journal and how they are posted into ledger.

Illustration

Prepare the Sales Journal of M/s. Bharat Furniture Works, Delhi from the following transactions:

2018

Aug. 1 Sold to Doualath Furniture House, Delhi
50 Chairs @ Rs. 150 each

10 Tables @ Rs. 500 each

At a trade discount of 10%

“ 4 Supplied the following furniture, as per the order, to Kesav Memorial School, Mehrauli

100 Chairs @ Rs. 135 each

40 Tables @Rs. 450 each

2 Almirahs @Rs. 750 each

5 Black boards @ Rs. 800 each

“ 10 Supplied on credit to Pyarelal Furniture Palace, Okhla

10 Sofa sets @ Rs. 800 each

10 Dining tables @ Rs. 500 each

5 Cots @ Rs. 600 each

5 Dining tables @ Rs. 800 each

Trade discount 10%

Solution :

Bharat Furniture Works

Sales Journal

| Date | Name of the supplier | Debit note number | L.F. | Amount | Remarks |
|--------|----------------------------------|-------------------|------|--------|---------|
| 2018 | | | | Rs. | |
| Aug. 1 | Doulath Furniture House, Delhi | 107 | | 11,250 | |
| “ 4 | Kesav Memorial School, Mehrauli | 108 | | 37,000 | |
| “ 10 | Pyarelal Furniture Palace, Okhla | 109 | | 18,000 | |
| “ 31 | Total | | | 66,250 | |

Note: i) Invoice numbers are imaginary,

ii) Sometimes, the particulars of items sold can also be given with each entry, but it is considered unnecessary because the details are available in the invoices and the serial numbers of which are duly given in the Sales Journal.

LEDGER

Daulath Furniture House Account

Dr.

Cr.

| | | | | | |
|-------|--------------|-------|--|--|--|
| 2018 | | Rs. | | | |
| Aug 1 | To Sales A/c | 1,250 | | | |

Kesav Memorial School, Mehrauli

| | | | | | |
|-------|--------------|--------|--|--|--|
| 2018 | | Rs. | | | |
| Aug 4 | To Sales A/c | 37,000 | | | |

Pyarelal Furniture Palace

| | | | | | |
|----------------|--------------|---------------|--|--|--|
| 2018 Aug 10 | To Sales A/c | Rs. 18,000 | | | |
|----------------|--------------|---------------|--|--|--|

Sales Account

| | | | | | |
|--|--|--|----------------|---------------------------------------|---------------|
| | | | 2018 Aug 31 | By Sundries – as per Sales Journal | Rs. 66,250 |
|--|--|--|----------------|---------------------------------------|---------------|

6.17 SALES RETURNS JOURNAL

When customers return the goods to the business, it will be recorded in a separate book called ‘Sales Returns Journal’. Normally, if the number of such returns is small, they can be recorded in the journal itself. But if their number is large, it is better to maintain a separate book called Sales Returns Journal. This book is also called ‘Returns Inwards Journal’.

6.17.1 Credit Note

When a customer returns goods, a statement called ‘Credit Note’ is sent to him. The credit note informs the customer that his account has been credited to the extent of the value of goods returned. You know that when goods were sold, the customer’s account was debited. Now crediting his account means the amount payable by him stands reduced by the value of goods returned. The credit note also contains other information such as the name and address of the customer, description of the goods returned, etc. The credit notes are consecutively numbered and are prepared in duplicate. The original is sent to the customer and the duplicate is carefully filed. The specimen of a credit note is shown in Figure 6.12.

Credit Note

| | | |
|---|-----------------|--------|
| Book Lovers Private Limited Hyderabad | | |
| No.698 M/s. Book Paradise Nagpur | Date: 25-7-2018 | |
| WE HAVE CREDITED YOUR ACCOUNT FOR GOODS RETURNED AS FOLLOWS | | |
| | Rs. Ps. | Rs.Ps. |
| 2 Copies of ‘Principles and Practice of Accountancy’ by Shriram @Rs. 25 each | 50.00 | |
| Less: Trade discount allowed @ 10% | 5.00 | |
| (Rupees forty five only). | | 45.00 |
| xxx For Book Lovers Pvt. Ltd | | |

Fig. 6.12

Note: Normally the customer, while returning the goods, may also send a debit note. But quite often they do not do so. Hence, the seller always prepares a credit note for his record. If debit note is also received, it may be filled along with the respective credit note.

6.17.2 Recording in the Sales Returns Journal

The ruling of the Sales Returns Journal is similar to that of Purchases Returns Journal. The difference is only with regard to the second column. In Purchases Returns Journal, the second column is used for recording the name of the supplier. But in case of Sales Returns Journal, it is used for writing the name of the customer. The Procedure for recording in the Sales Returns Journal is also similar to that the Purchases Returns Journal. The entries in the Sales Returns Journal are made with the help of duplicate copy of the credit notes.

6.17.3 Posting the Sales Returns Journal

The transaction recorded in the Sales Returns Journal are posted to the respective personal accounts in the ledger. Separate accounts in the name of each customer already exist in the ledger (opened at the time of sale). Credit the customers' accounts individually by writing 'By Sales Returns A/c'. Then post the total of the Sales Returns Journal to the debit side of the Sales Returns A/c by writing 'To Sundries—as per Sales Returns Journal'.

Look at illustration 9 and study how sales returns have been recorded in the Sales Returns Journal and posted into ledger.

Illustration (Continuation of illustration 8)

2018

- Aug. 5 Received a debit note along with one chair and a table from Douloth Furniture House, Delhi, saying that the legs of the chair and table are broken (remember, each chair was sold at Rs. 150 and each table at Rs. 500 with a trade discount of 10%).
- 10 Received 2 chairs and 2 tables along with a letter from Kesav Memorial School, Mehrauli, saying that they were damaged (chairs were sold at Rs. 135 each and tables at Rs. 450 each).
- 16 Received a debit note from M/s. Pyarelal Furniture Palace, Okhla, stating that the mirrors of two dressing tables were found defective and so returned.

Enter the above transactions in the Sales Return Journal of M/s Bharat Furniture Works, Delhi, and show the ledger postings.

Bharat Furniture Works SALES RETURNS JOURNAL

| Date | Name of the supplier | Credit note number | L.F. | Amount | Remarks |
|-------|----------------------------------|--------------------|------|--------|---------|
| 2018 | | | | | |
| Aug.5 | Doulath Furniture House, Delhi | 56 | | 585 | |
| “ 10 | Kesav Memorial School, Mehrauli | 57 | | 1,170 | |
| “ 16 | Pyarelal Furniture Palace, Okhla | 58 | | 200 | |
| “ 31 | Total | | | 1,955 | |

Note : Credit Note numbers are imaginary.

LEDGER
Doulath Furniture House Account

| Dr. | | Rs. | 2018 | Rs. | 2018 | Cr. |
|--|---|--------|----------------|-------|---|-----|
| 2018 Aug 1 | To Sales A/c | 11,250 | 2018 Aug 5 | 585 | By Sales Returns A/c | |
| Kesav Memorial School Account | | | | | | |
| 2018 Aug 4 | To Sales A/c | 37,000 | 2018 Aug 10 | 1,170 | By Sales Returns A/c | |
| Pyarelal Furniture Palace Account | | | | | | |
| 2018 Aug 10 | To Sales A/c | 18,000 | 2018 Aug 16 | 200 | By Sales Returns A/c (Allowance granted) | |
| Sales Returns Account | | | | | | |
| 2018 Aug 31 | To Sundries - as per Sales Returns Journal | 1,955 | | | | |

These postings were made from Sales Journal, when goods were sold.

Check Your Progress F

1. What is an invoice?

.....

2. What is a debit note?

.....

3. What is a credit note?

.....

4. Fill in the blanks
- Purchases Journal records credit purchase ofonly.
 - Sales Journal records allsales of goods.
 - Ais sent to a customer when he returns the goods.
 - Total purchases are posted toAccount at the end of every month.
 - Total of Sales Journal is posted on the side of Sales Account at the end of every month.
 - Sales Returns are also called
 - Purchase Returns are also called.....
 - Debit Note is sent to the supplier when the goods are to him.

6.18 JOURNAL PROPER

By now, you know what a journal is and what its sub-divisions are. You also know that the special journals discussed earlier take care of certain types of transactions which are repetitive and numerous. However, there are a number of transactions which do not occur frequently and hence do not warrant preparation of special journals. But they have to be recorded somewhere. For them, the proper place is the original journal itself, which is now called 'Journal Proper'. Thus all events and transactions which cannot be recorded in any of the special journals maintained by the firm, shall be recorded in the Journal Proper. Examples of such transactions are:

- Opening Entry
 - Closing Entries
 - Transfer Entries
 - Adjustment Entries
 - Rectification Entries
 - Miscellaneous Entries
- a) **Opening Entry:** An opening entry is passed in the journal for opening a new set of accounts. This may be needed at the time of the commencement of business or at the commencement of new accounting year.

If a person commences business only with cash, there is no need to pass a journal entry. The cash brought in is just entered in the cash book. But, if he also brings some other assets, then an opening entry is passed in Journal Proper, debiting the concerned assets accounts and crediting the Capital Account.

In case of a running business, an opening entry is passed at the commencement of a new accounting year to incorporate various balances of assets and liabilities brought forward from the previous year into current year's books.

- b) **Closing Entries:** At the end of the accounting year, when final accounts are prepared, the nominal accounts are closed by transferring them to Trading

Account or Profit and Loss Account. The journal entries passed for this purpose are called 'Closing Entries'.

- c) **Transfer Entries:** When an amount is to be transferred from one account to another, you have to pass an entry in the Journal Proper in order to effect the transfer. Such entries are called 'Transfer Entries'. Suppose, you want to transfer proprietor's total drawings made during the year to his Capital Account. The proprietor's total drawings appear in Drawings Account which shows a debit balance. You will transfer the balance of Drawings Account to Capital Account by passing the following entry in the Journal Proper.

| | |
|---------------------|-----|
| Capital Account | Dr. |
| To Drawings Account | |
| (Transfer entry) | |

- d) **Adjustment Entries:** At the time of preparing the final accounts, it is necessary to bring into the books of account certain unrecorded items like closing stock, depreciation on fixed assets, interest on capital, expenses incurred but not yet paid, income earned but not yet received, etc. Entries passed in the Journal Proper to record such items are called 'Adjustment Entries'. These entries are explained in detail later.
- e) **Rectification Entries:** You may commit errors while recording transactions in various books, and while posting, totalling, balancing, etc. Such errors are generally corrected through entries in Journal Proper and are known as 'Rectification Entries'.
- f) **Miscellaneous Entries:** In addition to the entries mentioned above, if there is any transaction which cannot be recorded in any of the special journals, it will be entered in the Journal Proper. Example of such transactions are:
- Credit purchases of fixed assets, investments, etc.
 - Credit sales of fixed assets, investments etc.
 - Withdrawal of goods from the business by the owner for his personal use.
 - Loss of goods by theft, accident, fire, etc.
 - Special allowances received from suppliers or given to customers.
 - Endorsement or dishonour of bills.
 - Writing off bad debts.

Look at illustration for entries of such transactions in the Journal Proper.

Illustration

Enter the following in the Journal Proper of Rajani Enterprises.

2018

Aug. 3 Sold office van on credit for Rs. 15,000 to Ahmed Ali.

“ 8 The owner has taken away goods worth Rs. 1,000 for his domestic use. “ 15
Fire broke out in the premises and goods worth Rs. 5,000 were destroyed.

“ 21 Bill drawn on Singh returned dishonoured when presented for payment, Rs. 2,000.

“ 25 Amount due Rs. 500 from Bahadur is irrecoverable, as he has been declared insolvent.

“ 28 Misra, a customer, informed that some goods were damaged in transit. An allowance of Rs. 50 was granted to him for repairs.

Solution :

JOURNAL PROPER

| Date | Particulars | L.F. | Debit Rs. | Credit Rs. |
|----------------|--|------|-----------|------------|
| 2018 Aug. 3 | Ahmed Ali Dr. To Office Van A/c (Being the credit sale of office van to Ali) | | 15,000 | 15,000 |
| “ 8 | Drawing A/c Dr. To Purchases A/c (Being the withdrawal of goods By the owner for domestic use) | | 1,000 | 1,000 |
| “ 15 | Loss by Fire A/c Dr. To Purchases A/c (Being loss of goods by fire accident) | | 5,000 | 5,000 |
| “ 21 | Singh Dr. To Bills Receivable A/c (Being the dishonour of bill by Singh) | | 2,000 | 2,000 |
| “ 25 | Bad Debts A/c Dr. To Bahadur (Being the amount irrecoverable from Bahadur) | | 500 | 500 |
| “ 28 | Allowances A/c Dr. To Misra (Being an allowance granted for repair of goods damaged in transit) | | 50 | 50 |

6.19 LET US SUM UP

- Journal is the book of original entry in which normally all transactions are recorded. But when transactions are numerous, there are many difficulties in recording all of them in one journal. Hence, the need for sub-division of journal arises.
- In business many transactions are of repetitive nature. The journal is therefore sub-divided in such a way that a separate book is used for each category of transactions which are repetitive in nature and are sufficiently large in number.
- Depending on the requirements of business, the special journals used are:
 - Cash book
 - Purchases Journal,
 - Sales Journal,
 - Purchase Returns Journal
 - Sales Returns Journal
 - Journal Proper

4. All cash transactions are recorded in cash book. There are different types of cash books. The most commonly used are: (i) Single Column Cash Book, (ii) Two Column Cash Book, and (iii) Three Column Cash Book.
5. The Single Column Cash Book has only one amount column on both sides. All cash receipts are recorded on the debit side and all cash payments on the credit side.
6. The Two Column Cash Book has an additional amount column for cash discount on both sides. The discount allowed is recorded on the debit side and the discount received on the credit side.
7. Petty Cash Book is prepared for recording payments of various petty expenses. This saves a lot of labour and time.
8. The main functions of a bank are to accept deposits and lend money to business. It also provides various other services to its customers.
9. There are three types of accounts available in the bank. The businessman generally opens current account.
10. When an account is opened in the bank, the depositor receives a pass book, a pay-in-slip book, and a cheque book.
11. A cheque is an instrument used for withdrawal of money from the bank. It can also be used for making payments to other parties.
12. For safety, the cheques can be crossed. Crossing can be general or specific.
13. The Payee of a cheque can endorse it to a third party by putting his signature at the back of the cheque.
14. The bank can refuse payment of a cheque. Refusing to pay is called dishonouring the cheque.
15. The Three Column Cash Book has three amount columns on each side. One of these three columns is for recording banking transactions of the firm.
16. All deposits into the bank are recorded in the bank column on the debit side of the cash book, and all withdrawals on the credit side.
17. The bank column in the cash book serves the purpose of bank account. Hence, there is no need to open bank account in the ledger.
18. Purchases Journal is meant for recording all credit purchase of goods. Inward invoice is the basis for recording in the Purchases Journal.
19. Purchases Returns Journal is used for recording goods returned to the suppliers. Debit note is the basis for recording in Purchases Returns Journal.
20. Sales Journal is meant for recording all credit sales of goods. Outward invoice is the basis for recording in the Sales Journal.
21. Sales Returns Journal is used for recording goods returned by the customers. Credit note is the basis for recording in it.
22. All transactions which cannot be recorded in any of the special journals will be recorded in the journal itself, which is now called Journal Proper.

6.20 KEY WORDS

Adjustment Entry : An entry passed to bring into account certain unrecorded items like closing stock, outstanding expenses and incomes, at the time of preparing final accounts.

Bearer Cheque : A cheque payable at the counter of the bank without identification.

Cash Book : A special journal used for recording all cash receipts and cash payments.

Cash Discount : An allowance given by the creditor to the debtor for prompt payment.

Closing Entries : Entries passed at the end of each accounting year to close the nominal accounts by transferring them to Trading and Profit and Loss Account.

Credit Note : A statement sent by the seller to his customer informing that his account is credited to the extent of the goods returned by him or allowance granted to him.

Cheque : An instrument used for withdrawing money from the bank.

Crossed Cheque : A cheque on which two parallel lines have been drawn. It is not payable at the counter.

Contra Entry : When both the debit and credit aspects of a transaction are recorded in the cash book itself.

Debit Note : A statement sent by the purchaser to his supplier informing that his account is debited to the extent of the goods returned or allowance claimed.

Dishonour : Refusal to pay the cheque by the bank

Endorsement : A written statement signed by the payee at the back of the cheque for its transfer.

Imprest System : A system of advancing a fixed amount to the petty cashier periodically.

Invoice : A bill or a statement issued by the seller to the purchaser giving details of goods sold.

Opening Entry : An entry passed to open a new set of accounts.

Order Cheque : A cheque in respect of which identification of the payee is necessary.

Pass Book : A book or a statement supplied by the bank to its customer showing his transactions with the bank.

Pay-in-slip : A slip or a challan used for depositing cash or cheques in the bank.

Petty Cash Book : A cash book prepared for recording small payments of cash.

Subsidiary Book : Any special journal used for recording a particular category of transactions.

Special Crossing : A crossing specifying the name of bank through whom the cheque can be presented for payment.

Transfer Entry : An entry passed to transfer an amount from one account to another account.

6.21 ANSWERS TO CHECK YOUR PROGRESS

- A a) iii b) i c) iii d) ii e) iii
- B a) Cash b) debit, credit c) Cash Account d) credit e) debit f) cash
- C 2. a) True b) True c) False d) False e) True
- E 1) Debit 2) Credit 3) Contra entry 4) Cash 5) Both 6) Credit
- F 4. (a) goods (b) credit (c) credit note (d) Purchases (e) credit (f) returns inwards (g) returns outwards (ii) returned
- G 6. (a) True (b) False (c) False (d) True (e) False (f) False (g) True (h) False

6.22 TERMINAL QUESTIONS / EXERCISES

Questions

- Why is journal sub-divided? Name the special journals and state the type of transactions entered in each of them.
- Explain the following in about 10 lines each.
 - 'Cash Book is both a journal and a ledger'
 - Imprest system
 - Types of Cash Books
 - Posting of Two Column Cash Book.
- What are the advantages of maintaining a Petty Cash Book? Explain the method of balancing and posting the Petty Cash Book.
- Explain the following in about ten lines each.
 - Bank Column in cash book serves the purpose of a Bank Account in the ledger
 - Advantages of having a bank account.
 - Effect of crossing a cheque.
 - Contra Entry.
- State the reasons for the following:
 - All entries in Three Column Cash Book are not posted into the ledger.
 - The total in the cash column on the debit side of the cash book is always more than its credit side, but it is not true of the bank column.
 - When a cheque received is endorsed to a third party, it must be entered on both sides of the cash book.
- Why is a cheque dishonoured? How do you record it in the cash book?

7. Give the proforma of Purchases Journal. Explain the method of recording the transactions in the Purchases Journal and its posting into ledger.
8. How does Debit Note differ from Credit Note? Discuss the utility of these notes.
- 9 Write short notes on the following:
 - a) Returns Inward Journal
 - b) Returns Outward Journal
10. What is a Journal Proper? List the transactions recorded in the Journal Proper.

Exercises

1. Enter the following transactions of Motilal Stores in the Single Column Cash Book and balance the same.

| 2018 | | Rs. |
|-------|---|------------|
| Jan.1 | Motilal started business with a capital | 20,000 |
| “ 2 | Purchased furniture | 5,000 |
| “ 2 | Purchased goods | 3,000 |
| “ 3 | Paid cartage | 75 |
| “ 5 | Sold goods for cash | 2,800 |
| “ 10 | Paid to Ratan Lal | 2,000 |
| “ 18 | Sold goods for cash | 1,000 |
| “ 25 | Paid wages | 225 |
| “ 28 | Paid rent | 500 |
| “ 30 | Purchased goods | 2,000 |

(Answer: Cash in hand Rs. 11,000)

2. From the following transactions of Mani Ram Agencies, prepare a Single Column Cash Book, balance it, and post it into ledger.

| 2018 | | Rs. |
|--------|-------------------------------------|------------|
| Jan. 1 | Mani Ram started business with cash | 40,000 |
| “ 2 | Opened a bank account and deposited | 15,000 |
| “ 5 | Purchased furniture | 8,000 |
| “ 8 | Purchased goods | 12,000 |
| “ 10 | Sold goods for cash | 7,000 |
| “ 15 | Sold goods on credit to Rajan | 6,000 |
| “ 20 | Purchased electrical fan | 450 |
| “ 25 | Received cash from Rajan | 6,000 |
| “ 28 | Paid rent | 550 |
| “ 29 | Deposited into the bank | 10,000 |
| “ 31 | Paid wages | 1,500 |

Hint:Credit sales are not a cash transaction. Hence, not recorded in the Cash Book.

(Answer: Cash in hand Rs. 5,500)

3. Enter the following transactions of Gupta Emporium in Two Column Cash Book and balance it.

2018

- Apr. 1 Cash in hand Rs. 3,000
 “ 3 Paid to S.K, Basu Rs. 580 and received discount Rs. 20.
 “ 5 Purchased goods for cash Rs. 2,000
 “ 8 Received from N.K. Prasad Rs. 960, and allowed him discount of Rs. 40
 “ 15 Sold goods on credit to Adinarayan Rs. 2,000 “
 20 Cash sales Rs. 600 -
 “ 25 Paid to Narayan Rs. 1,150 in full settlement of his account of Rs. 1,200 “ 28 Received from Adinarayan Rs. 1,950 in full settlement of his account “ 29 Rent paid Rs. 600
 “ 30 Took cash for personal use Rs. 500

(Answer: Cash balance Rs. 1,680. Discount allowed total Rs. 90, Discount received total Rs. 70).

4. Prepare Two Column Cash Book of M/s. Sanjay Enterprises from the following transactions. Also show the ledger postings.

| 2018 | | Rs. |
|--------|---|-------|
| Apr. 1 | Cash in hand | 3,000 |
| “ 3 | Purchased goods | 800 |
| “ 5 | Paid to Gupta | 600 |
| | Discount allowed by him | 40 |
| “ 7 | Sold goods | 1,000 |
| “ 9 | Received from Pannalal | 1,960 |
| | Discount allowed to him | 40 |
| “ 12 | Received cash from Nagesh in full settlement of his account Rs. 1,000 | 970 |
| “ 15 | Paid to Rakesh after deducting 2.5% discount | 1,170 |
| “ 18 | Received from Shanker | 590 |
| | Discount allowed to him | 10 |
| “ 24 | Paid wages | 100 |
| “ 27 | Paid for stationery | 60 |
| “ 29 | Paid to Kartar Singh in full settlement of his account Rs. 800 | 780 |
| “ 30 | Deposited cash into bank in excess of | 800 |

(Answer: Amount deposited in the bank Rs. 3,210. Discount allowed total Rs. 80. Discount received total Rs. 90).

5. Prepare a Petty Cash Book on the Imprest System from the following particulars of M/s. Preetam Industries.

| 2018 | | Rs. | |
|------|----|----------------------------------|--------|
| July | 1 | Received a cheque for petty cash | 150.00 |
| “ | 2 | Paid bus charges | 1.50 |
| | | Paid cartage | 5.00 |
| “ | 3 | Paid for postage and telegrams | 15.25 |
| | | Paid wages to casual workers | 10.00 |
| “ | 4 | Paid for Stationery | 4.75 |
| “ | 5 | Paid for repairs of chairs | 15.00 |
| | | Bus Charges | 1.00 |
| “ | | Cartage | 4.50 |
| “ | 6 | Purchased locks | 35.00 |
| “ | 7 | Tea expenses to customers | 4.00 |
| “ | 15 | Repair to typewriter | 7.00 |
| “ | 20 | Paid tanga charges | 6.00 |
| “ | 24 | Paid taxi fare to manager | 18.00 |
| “ | 26 | Purchased stamps | 5.00 |
| “ | 29 | Auto charges | 7.00 |

(Answer: On August 1, 2018, petty cashier will be given a cheque for Rs. 139)

Note : These questions will help you to understand the unit better. Try to write answers for them. But, do not submit your answers to the University for assessment. These are for your own practice only.

UNIT 7 TRIAL BALANCE

Structure

- 7.0 Objectives
- 7.1 Introduction
- 7.2 What is a Trial Balance?
- 7.3 Preparation of a Trial Balance
- 7.4 Preparation of Trial Balance from a Given List of Balances
- 7.5 Causes for the Disagreement of a Trial Balance
- 6.6 Locating Errors when the Trial Balance Disagrees
- 7.7 Errors not Disclosed by Trial Balance
- 7.8 Advantages of a Trial Balance
- 7.9 Limitations of a Trial Balance
- 7.10 Rectification of Errors
 - 7.10.1 Rectification of One-sided Errors
 - 7.10.2 Rectification of Two-sided Errors
- 7.11 Suspense Account and Rectification
- 7.12 Effect of Rectifying Entries on Profits
- 7.13 Let Us Sum Up
- 7.14 Key Words
- 7.15 Some Useful Books
- 7.16 Answers to Check Your Progress
- 7.17 Terminal Questions/Exercises

7.0 OBJECTIVES

After studying this unit, you should be able to:

- define trial balance;
- prepare trial balance from a given set of balances;
- explain the causes of disagreement of a trial balance;
- describe the procedure for locating the errors;
- describe the types of errors which remain undisclosed by the trial balance;
- explain the advantages and limitations of trial balance;
- rectify errors before preparing the final accounts;
- explain the use of suspense account;
- prepare the suspense account;

- rectify errors located during subsequent accounting years; and
- compute the effect of rectifying errors on profits.

7.1 INTRODUCTION

You have learnt the method of recording transactions in journal and its sub-divisions. You have also learnt their posting to various accounts in the ledger. This process of recording and posting continues throughout the year. At the end of the year it becomes necessary to check the arithmetical accuracy of the books of account before the final accounts can be prepared. For this purpose, we prepare a statement called Trial Balance. In this unit, you will study about the preparation of Trial Balance and the extent upto which it can be relied upon for testing the accuracy of accounts. You will also learn about the errors that will be disclosed by Trial Balance and the method of locating such errors.

You know that Trial Balance is prepared to verify the arithmetical accuracy of accounting records. When the Trial Balance does not tally, it means there are errors in the books of account and you will also learn about the errors that affect the Trial Balance and also study the procedure for locating such errors. In the process of rechecking, a number of errors are detected. These errors must be rectified before preparing the final accounts. In this unit, you will also learn about the method of rectifying various errors and study the effect of the rectification on the profit of the business. You are advised to go through this unit once again and note the errors that are usually committed in the process of recording various transactions in subsidiary books and their postings.

7.2 WHAT IS A TRIAL BALANCE ?

Numerous transactions take place in business everyday. They are first recorded in some books of original entry i.e., Journal Proper or one of its sub-divisions. Then they are posted to the appropriate accounts in the ledger. Each ledger account is balanced periodically so as to ascertain the net effect of various transactions posted therein. In the process, some accounts may get closed, while the others may show a debit or a credit balance. Based on these balances, the final accounts are prepared for ascertaining the profit or loss and the financial position of the business. The quality and reliability of the results obtained depend largely on the correctness of the entries made in various books of account. Hence, it is necessary to ascertain the accuracy of these entries before we proceed

with the preparation of final accounts. For this purpose, we prepare a statement called 'Trial Balance', which shows balance of all ledger accounts. The ruling of trial balance is similar to that of journal. We write the name of each account in the particulars column. If the account shows a debit balance, its amount is entered in the debit balances column and if it shows a credit balance the amount is entered in the credit balances column. You know that the total of the debit balances column must tally with the total of the credit balances column, because for every debit there is a corresponding credit and vice versa. When the two totals tally, it is considered as a preliminary proof of the arithmetical accuracy of entries in the books of accounts. It is an assurance that posting into ledger has been correctly done and that equality between debits and credits has been maintained throughout. If, however, the two totals do not tally it implies that there are errors in the books of account.

Trial Balance can thus be defined as a statement (or a schedule) listing, in separate columns, the debit and credit balances of all ledger accounts on a particular date. It indicates whether or not the books of account have been written in accordance with the rules of double entry and ensures, to a great extent, the arithmetical accuracy of accounting entries.

7.3 PREPARATION OF A TRIAL BALANCE

At the outset, it is necessary to note that Trial Balance is a statement of balances. Its preparation does not involve passing of any journal entries. We simply balance various accounts in the ledger and list all accounts which show some balance, whether it is debit or credit. You are aware that when cash book is maintained, the ledger does not contain cash and bank accounts. Hence, cash and bank balances are taken from the cash book. If the number of personal accounts is large, you may prepare separate statements of balances for all debtors and creditors and show only the total debtors and total creditors in the trial balance.

Let us now take a comprehensive example covering all types of transactions, record them in appropriate books, post them into ledger, and prepare a trial balance. Look at illustration. It shows the accounting process right up to the preparation of Trial Balance.

Illustration

The following is the Balance Sheet of Kapil Dev as on March 31, 2018.

| Liabilities | Rs. | Assets | Rs. |
|---------------------|---------------|-----------------|---------------|
| Capital | 50,000 | Cash in hand | 15,000 |
| | | Stock | 50,000 |
| Loan from bank | 8,000 | Due from Khanna | 1,500 |
| Due to Saluja Bros. | 15,000 | Due from Mittal | 2,500 |
| | | Furniture | 4,000 |
| | <u>73,000</u> | | <u>73,000</u> |

The following transactions took place during April, 2018:

| | Rs. |
|---|--------|
| April 2 Paid wages and salaries | 6,000 |
| “ 2 Cash sales of bicycles | 3,000 |
| “ 3 Purchased 20 bicycles on credit from Mehra Cycle Co. @ Rs. 600 per bicycle | 12,000 |
| “ 5 Sold 30 bicycles to Mittal @ 900 per bicycle | 27,000 |
| “ 8 Paid to Saluja Bros. in full settlement of their account | 14,600 |
| “ 10 Received from Mittal 2 bicycles as defective, and sent him a credit note | 1,800 |
| “ 13 Paid rent | 1,750 |
| “ 15 Purchased from Saluja Bros. on credit 20 cycle rims @ Rs. 100 each | 2,000 |
| 20 cycles hubs @ Rs. 20 each | 400 |

| | | |
|---|--------|----------------------|
| “ 18 Sold to Rao 10 bicycles @ Rs. 800 per bicycle | 8,000 | Trial Balance |
| “ 20 Returned to Saluja Bros. 10 cycle hubs being cracked | 200 | |
| “ 21 Rao returned 2 bicycles, and sent him credit note | 1,600 | |
| “ 22 Mittal Paid | 14,000 | |
| “ 24 Purchased one typewriter on credit from Kutub Typewriter Co. | 6,500 | |
| “ 25 Cash sales | 3,500 | |
| “ 28 Khanna paid; no hope of getting the balance | 1,000 | |
| “ 30 Rao paid | 6,200 | |
| Discount allowed | 200 | |
| “ 30 Paid to Mehra Cycle Co. on account | 10,000 | |

Prepare Journal Proper and the subsidiary books involved. Show their postings into ledger and prepare a Trial Balance.

| Cash Book | | | | | | | | |
|------------------|----------------|------|----------|------------|--------|---------------------------|--------------------|--------|
| Dr. | | | | Cr. | | | | |
| Date | Particulars | L.F. | Discount | Cash | Date | Particulars | L.F. Discount Cash | |
| 2018 | | | Rs. | Rs. | 2018 | | Rs. | Rs. |
| Apr. 1 | To Balance b/d | | | 15,000 | Apr. 2 | By Wages and Salaries A/c | | 6,000 |
| “ 2 | To Sales A/c | | | 3,000 | “ 8 | By Saluja Bros. | 400 | 14,600 |
| “ 22 | To Mittal | | | 14,000 | “ 13 | By Rent A/c | | 1,750 |
| “ 25 | To Sales A/c | | | 3,500 | “ 30 | By Mehra Cycle Co. | | 10,000 |
| “ 28 | To Khanna | | | 1,000 | “ 30 | By Balance c/d | | 10,350 |
| “ 30 | To Rao | | 200 | 6,200 | | | | |
| | | | 200 | 42,700 | | | 400 | 42,700 |
| May 1 | To Balance b/d | | | 10,350 | | | | |

PURCHASES JOURNAL

| Date | Particulars | Invoice No. | L.F. | Amount |
|--------|-----------------|-------------|------|--------|
| 2018 | | | | Rs. |
| Apr. 3 | Mehra Cycle Co. | | | 12,000 |
| “ 15 | Saluja Bros. | | | 2,400 |
| “ 30 | Total | | | 14,400 |

PURCHASES RETURNS JOURNAL

| Date | Particulars | Debit Note No. | L.F. | Amount |
|---------|--------------|----------------|------|--------|
| 2018 | | | | Rs. |
| Apr. 20 | Saluja Bros. | | | 200 |
| “ 30 | Total | | | 200 |

| Date | Particulars | Invoice No. | L.F. | Amount |
|--------|-------------|-------------|------|--------|
| 2018 | | | | Rs. |
| Apr. 5 | Mittal | | | 27,000 |
| “ 18 | Rao | | | 8,000 |
| “ 30 | Total | | | 35,000 |

SALES RETURNS JOURNAL

| Date | Particulars | Credit Note No. | L.F. | Amount |
|--------|-------------|-----------------|------|--------|
| 2018 | | | | Rs. |
| Apr.10 | Mittal | | | 1,800 |
| “ 21 | Rao | | | 1,600 |
| “ 30 | Total | | | 3,400 |

JOURNAL

| Date | Particulars | L.F. | Dr. Amount | Cr. Amount |
|--------|---|------|---|---------------------------|
| 2018 | | | Rs. | Rs. |
| Apr. 1 | Cash A/c Dr. Stock A/c Dr. Khanna Dr. Mittal Dr. Furniture A/c Dr. To Capital A/c To Bank Loan A/c To Saluja Bros. (Opening balances of assets and liabilities being brought in on April 1, 2018) | | 15,000 50,000 1,500 2,500 4,000 | 50,000 8,000 15,000 |
| “ 24 | Typewriter A/c Dr. To Kutub Typewriter Co. (Being purchase of typewriter on credit) | | 6,500 | 6,500 |
| “ 28 | Bad Debts A/c Dr. To Khanna (Being amount still due from Khanna, now written off as bad debt) | | 500 | 500 |
| “ 30 | Total | | 80,000 | 80,000 |

LEDGER
Capital Account

Trial Balance

Dr.

Cr.

| | | | | | |
|----------------|----------------|---------------|----------------|----------------|---------------|
| 2018 Apr.30 | To Balance c/d | Rs. 50,000 | 2018 Apr. 1 | By Balance b/d | Rs. 50,000 |
| | | | May 1 | By Balance b/d | 50,000 |

Saluja Bros Account

| | | | | | |
|----------------|------------------------|---------------|---------|------------------|---------------|
| 2018 Apr. 8 | To Cash A/c | Rs. 14,600 | Apr. ,1 | By Balance b/d | Rs. 15,000 |
| “ 8 | To Discount A/c | 400 | “ 15 | By Purchases A/c | 2,400 |
| “ 20 | To Returns Outward A/c | 200 | | | |
| “ 30 | By Balance c/d | 2,200 | | | |
| | | 17,400 | | | 17,400 |
| | | | May 1 | By Balance b/d | 2,200 |

Bank Loan Account

| | | | | | |
|-----------------|----------------|--------------|----------------|----------------|--------------|
| 2018 Apr. 30 | To Balance c/d | Rs. 8,000 | 2018 Apr, 1 | By Balance b/d | Rs. 8,000 |
| | | 8,000 | May 1 | By Balance b/d | 8,000 |

Mehra Cycle Co. Account

| | | | | | |
|-----------------|----------------|---------------|----------------|------------------|---------------|
| 2018 Apr. 30 | To Cash A/c | Rs. 10,000 | 2018 Apr. 3 | By Purchases A/c | Rs. 12,000 |
| “ 30 | To Balance c/d | 2,000 | | | |
| | | 12,000 | | | 12,000 |
| | | | May 1 | By Balance b/d | 12,000 |

Khanna's Account

| | | | | | |
|----------------|----------------|--------------|-----------------|------------------|--------------|
| 2018 Apr. 1 | To Balance b/d | Rs. 1,500 | 2018 Apr, 28 | By Cash A/c | Rs. 1,000 |
| | | | “ 30 | By Bad Debts A/c | 500 |
| | | 1,500 | | | 1,500 |

Mittal's Account

| 2018 | | Rs. | 2018 | | Rs. |
|--------|----------------|---------------|---------|----------------------|---------------|
| Apr. 1 | To Balance b/d | 2,500 | Apr. 10 | By Return Inward A/c | 1,800 |
| " 5 | To Sales A/c | 27,000 | " 22 | By Cash A/c | 14,000 |
| | | | " 30 | By Balance c/d | 13,700 |
| | | <u>29,500</u> | | | <u>29,500</u> |
| May 1 | To Balance b/d | 13,700 | | | |

Rao's Account

| 2018 | | Rs. | 2018 | | Rs. |
|---------|--------------|--------------|---------|----------------------|--------------|
| Apr. 18 | To Sales A/c | 8,000 | Apr. 21 | By Return Inward A/c | 1,600 |
| | | | " 30 | By Cash A/c | 6,200 |
| | | | " 30 | By Discount A/c | 200 |
| | | <u>8,000</u> | | | <u>8,000</u> |

Furniture Account

| 2018 | | Rs. | 2018 | | Rs. |
|--------|----------------|-------|---------|----------------|-------|
| Apr. 1 | To Balance b/d | 4,000 | Apr. 30 | By Balance c/d | 4,000 |
| May 1 | To Balance b/d | 4,000 | | | |

Typewriter Account

| 2018 | | Rs. | 2018 | | Rs. |
|---------|--------------------------|-------|---------|----------------|-------|
| Apr. 24 | To Kutub Type Writer Co. | 6,500 | Apr. 30 | By Balance c/d | 6,500 |
| May 1 | To Balance b/d | 6,500 | | | |

Stock Account

| 2018 | | Rs. | 2018 | | Rs. |
|--------|----------------|--------|---------|----------------|--------|
| Apr. 1 | To Balance b/d | 50,000 | Apr. 30 | By Balance c/d | 50,000 |
| May 1 | To Balance b/d | 50,000 | | | |

Sales Account

| 2018 | | Rs. | 2018 | | Rs. |
|------|--|-----|--------|-------------------------------|--------|
| | | | Apr. 2 | By Cash A/c | 3,000 |
| | | | " 25 | By Cash A/c B | 3,500 |
| | | | " 30 | By Sundries as per Sales Book | 35,000 |

Purchase Account

Trial Balance

| | | | | | |
|---------|---|--------|---------|---|-------|
| 2018 | | Rs. | | | |
| Apr. 30 | To Sundries as per Purchase Book | 14,400 | | | |
| | Return Outwards Account | | | | |
| | | | 2018 | | Rs. |
| | | | Apr. 30 | By Sundries as per Returns Outward Book | 200 |
| | Return Inwards Account | | | | |
| 2018 | | Rs. | | | |
| Apr. 30 | To Sundries as per Returns Inward Book | 3,400 | | | |
| | Wages & Salaries Account | | | | |
| 2018 | | Rs. | | | |
| Apr. 2 | To Cash A/c | 6,000 | | | |
| | Rent Account | | | | |
| 2018 | | Rs. | | | |
| Apr. 13 | To Cash A/c | 1,750 | | | |
| | Bad Debts Account | | | | |
| 2018 | | Rs. | | | |
| Apr. 28 | To Gupta | 500 | | | |
| | Discount Account | | | | |
| 2018 | | Rs. | 2018 | Rs. | |
| Apr.30 | To Sundries - as per Cash Book | 200 | Apr. 30 | By Sundries - as per Cash Book | 400 |
| | Kutub Typewriter Co. | | | | |
| 2018 | | Rs. | 2018 | Rs. | |
| Apr. 30 | To Balance c/d | 6,500 | Apr. 24 | By Typewriter A/c | 6,500 |
| | | | May 1 | By Balance b/d | |
| | Trial Balance as on April 30, 2018 | | | | |

| Name of Account | | L.F. | Dr. Balances | Cr. Balances |
|-----------------|--------------|------|-----------------|-----------------|
| | | | Rs. | Rs. |
| | Cash in hand | | 10,350 | |
| | Capital | | | 50,000 |
| | Saluja Bros. | | | 2,200 |
| | | | | 107 |

| | | | |
|----------------------|--|-----------------|-----------------|
| Bank Loan | | | 8,000 |
| Mehra Cycle Co. | | | 2,000 |
| Kutub Typewriter Co. | | | 6,500 |
| Mittal | | 13,700 | |
| Furniture | | 4,000 | |
| Typewriter | | 6,500 | |
| Stock | | 50,000 | |
| Sales | | | 41,500 |
| Purchases | | 14,400 | |
| Returns Outwards | | | 200 |
| Returns Inwards | | 3,400 | |
| Wages & Salaries | | 6,000 | |
| Rent | | 1,750 | |
| Bad Debts | | 500 | |
| Discount Allowed | | 200 | |
| Discount Received | | | 400 |
| Total | | 1,10,800 | 1,10,800 |

- Note:** 1. You should know that the Trial Balance can also be prepared on the basis of the totals of all debits and credits in various accounts. But, this method is not followed any more. Hence it has not been discussed.
2. In this illustration, you will find that some accounts have not been balanced. It is because these are all nominal accounts which are to be closed by transfer to the Trading and Profit & Loss Account.

7.4 PREPARATION OF TRIAL BALANCE FROM A GIVEN LIST OF BALANCES

Normally when a trial balance is to be prepared, you have full details of ledger accounts with you. You can, therefore, easily ascertain whether a particular account has a debit balance or credit balance, and prepare the Trial Balance without any difficulty. But, sometimes, you are given only a list of balance. The nature of each balance is not mentioned. In other words, it is not clearly indicated whether the account is showing a debit balance or credit balance. Can you prepare a Trial Balance in such a situation? No you can't unless you know the nature of each balance. You will not know whether to show a particular balance in the debit column or in the credit column of the Trial Balance.

Hence, when you are asked to prepare a Trial Balance from a given list of balances and it is not clearly indicated whether a particular account has a debit balance or credit balance, you will first have to determine the nature of each balance. In this exercise, your knowledge of rules of debit and credit should help you. For example, you are aware that in case of nominal accounts all expenses and losses are debited and all incomes and gains are credited. Hence, accounts like salaries, wages, etc., will show debit balances and the accounts like interest received, discount received, etc., will show credit balances. Similarly, you know the rules for real and personal accounts. The accounts of assets like cash in hand, machinery, etc., will show debit balances and accounts like capital, creditors, etc., will show credit balances. For

convenience, however, a few guidelines may help you to determine quickly the nature of each balance. These are:

- a) All accounts of expenses (including purchases) and losses will be debit balances.
- b) All accounts of incomes (including sales) and gains will be credit balances.
- c) All accounts of assets will be debit balances.
- d) All accounts of liabilities will be credit balances.
- e) Capital Account will normally be a credit balance.
- f) Drawings Account will be a debit balance.

The difficulty may arise with regard to items like commission, discount, rent and interest, because these can take the form of expenses as well as incomes. In such cases, the nature of balance is usually indicated by mentioning (Dr.) or (Cr.) against each item, or the word 'received' or 'paid' is usually added. So you can treat them correctly without much difficulty. If, however, there is one item for which no such indication is given and you find it difficult to identify the nature of its balance, you just proceed with the preparation of Trial Balance. At the time of totalling the amount columns in the trial balance, you will find that the total of one column is less than the other. This implies that the unindicated balance pertains to the column which is short. For example, there is an item of commission Rs. 300. But it is not indicated whether it is paid or received. When you prepare the trial balance, you find that the debit total is short by Rs. 300. This means that Commission Account has a debit balance. Now, if you show it as such in the Trial Balance, it will tally.

Look at illustration. The Trial Balance has been prepared from a given list of balances where the nature of each balance is not indicated. Study illustration carefully and note how each item has been shown in the Trial Balance.

Illustration

Prepare a Trial Balance from the following balances taken from the books of Sudhakar on March 31, 2018.

| | Rs. | | Rs. |
|------------------|----------|-------------------|--------|
| Capital | 1,80,000 | Discount Received | 360 |
| Stock (1-4-2017) | 49,200 | Bills Payable | 12,270 |
| Sales | 2,43,600 | Sundry Creditors | 31,110 |
| Gas & Water | 2,520 | Returns Outwards | 19,200 |
| Land & Buildings | 60,000 | Bank Charges | 3,000 |
| Machinery | 55,470 | Drawings | 14,550 |
| Debtors | 1,07,400 | Trade Expenses | 2,970 |
| Commission (Dr.) | 4,410 | Cash | 2,400 |
| Plant | 30,810 | Bank | 15,780 |

Accounting Process

| | | | |
|-----------------|--------|------------------|--------|
| Carriage | 3,370 | Purchases | 96,480 |
| Rent Received | 1,290 | Rates & Taxes | 2,520 |
| Insurance | 3,180 | Furniture | 3,750 |
| Returns Inwards | 5,970 | Bills Receivable | 4,410 |
| Salaries | 19,640 | | |

Solution :**Trial Balance as on March 31, 2018**

| Name of Account | L.F. | Dr. Balances | Cr. Balances |
|-------------------|------|-----------------|-----------------|
| | | Rs. | Rs. |
| Capital | | — | 1,80,000 |
| Stock (1-4-2017) | | 49,200 | — |
| Sales | | — | 2,43,600 |
| Gas and Water | | 2,520 | — |
| Land & Buildings | | 60,000 | — |
| Machinery | | 55,470 | — |
| Debtors | | 1,07,400 | — |
| Commission (Dr.) | | 4,410 | — |
| Plant | | 30,810 | — |
| Carriage | | 3,370 | — |
| Rent Received | | — | 1,290 |
| Salaries | | 19,640 | — |
| Insurance | | 3,180 | — |
| Returns Inwards | | 5,970 | — |
| Discount Received | | — | 360 |
| Bills Payable | | — | 12,270 |
| Sundry Creditors | | — | 31,110 |
| Returns Outwards | | — | 19,200 |
| Bank Charges | | 3,000 | — |
| Drawings | | 14,550 | — |
| Trade Expenses | | 2,970 | — |
| Cash | | 2,400 | — |
| Bank | | 15,780 | — |
| Purchases | | 96,480 | — |
| Rates & Taxes | | 2,520 | — |
| Furniture | | 3,750 | — |
| Bills Receivable | | 4,410 | — |
| Total | | 4,87,830 | 4,87,830 |

In illustration, the Trial Balance has tallied i.e., the total of debit balances is equal to the total of credit balances. This implies that each balance has been entered in the appropriate amount column.

However, you require constant practice to determine the correct nature of items. Hence, another illustration is given where the accountant has not been able to correctly place the balances and, consequently, the Trial Balance does not tally. Look at illustration 3. The total of debit balances (Rs. 10,83,600) is different from the total of credit balances (Rs. 7,16,400). It is because a number of balances have been entered in the wrong amount columns. To cite one example, stock (an asset) is a debit balance but it has been wrongly entered in the credit column. Now, go through all items and identify those which have not been correctly shown in the given Trial Balance. Then, study the Revised Trial Balance and note how they are actually shown. This should help you gain clarity about the nature of various balances.

Illustration

Given below is a Trial Balance prepared by an inexperienced accountant and the Trial Balance has not tallied. Rewrite the Trial Balance.

Trial Balance of Buddhu & Co. as on December 31, 2018

| Name of Account | L.F. | Dr. Balances | Cr. Balances |
|-----------------------|------|-----------------|-----------------|
| | | Rs. | Rs. |
| Capital | | — | 1,12,600 |
| Buildings | | 1,70,000 | — |
| Motor Car | | — | 30,000 |
| Sales | | 6,00,000 | — |
| Purchases | | — | 3,40,000 |
| Furniture | | 25,000 | — |
| Stock | | — | 44,000 |
| Bank Overdraft | | 12,000 | — |
| Cash | | 3,000 | — |
| Interest on Bank Loan | | — | 4000 |
| Discounts Received | | 2,600 | — |
| Discounts Allowed | | — | 4,600 |
| Salaries | | 14,000 | — |
| Wages | | — | 12,000 |
| Printing & Stationery | | 4,000 | — |
| Investments | | 10,000 | — |
| Advertisement | | 6,000 | — |
| Legal Charges | | 2,000 | — |
| Audit Fees | | 1,000 | — |
| Bad Debts | | 3,000 | — |
| Debtors | | 2,31,000 | — |
| Creditors | | — | 1,72,800 |
| Total | | 10,83,600 | 7,16,400 |

**Revised Trial Balance of Buddhu & Co.
as on December 31, 2018**

| Name of Account | L.F. | Dr. Balances | Cr. Balances | Remarks |
|-----------------------|------|-----------------|-----------------|---------------|
| | | Rs | Rs. | |
| Capital | | — | 1,12,600 | — |
| Buildings | | 1,70,000 | — | Asset Dr. |
| Motor Car | | 30,000 | — | Asset Dr. |
| Sales | | — | 6,00,000 | Income Cr. |
| Purchases | | 3,40,000 | — | Expense Dr. |
| Furniture | | 25,000 | — | Asset Dr. |
| Stock | | 44,000 | — | Asset Dr. |
| Bank Overdraft | | — | 12,000 | Liability Cr. |
| Cash | | 3,000 | — | Asset Dr. |
| Interest on Bank Loan | | 400 | — | Expense Dr. |
| Discounts Received | | — | 2,600 | Income Cr. |
| Discounts Allowed | | 4,600 | — | Expense Dr. |
| Salaries | | 14,000 | — | “ |
| Wages | | 12,000 | — | “ |
| Printing & Stationery | | 4,000 | — | “ |
| Investments | | 10,000 | — | Asset Dr. |
| Advertisement | | 6,000 | — | Expense Dr. |
| Legal Charges | | 2,000 | — | “ |
| Audit Fees | | 1,000 | — | “ |
| Bad Debts | | 3,000 | — | “ |
| Debtors | | 2,31,000 | — | Asset Dr. |
| Creditors | | — | 1,72,800 | Liability Cr. |
| Total | | 9,00,000 | 9,00,000 | |

Check Your Progress A

1. Define Trial Balance

.....

.....

.....

2. Mention against each item whether it will generally show a debit balance or a credit balance.

| Item | Nature of Balance (Debit or Credit) |
|---------------------|--|
| a) Opening Stock | |
| b) Bad Debts | |
| c) Carriage Inwards | |

| | | |
|----------------------|-------|----------------------|
| d) Carnage Outwards | ..... | Trial Balance |
| e) Returns Inwards | ..... |  |
| f) Returns Outwards | ..... |  |
| g) Loan from Bank | ..... |  |
| h) Drawings | ..... |  |
| i) Goodwill | ..... |  |
| j) Bill Payable | ..... |  |
| k) Cash at Bank | ..... |  |
| l) Interest on Loan | ..... |  |
| m) Discount Allowed | ..... |  |
| n) Freehold Premises | ..... |  |
| o) Insurance | ..... |  |
| p) Salaries Payable | ..... |  |

7.5 CAUSES FOR THE DISAGREEMENT OF A TRIAL BALANCE

As mentioned earlier, when the Trial Balance does not tally, it means that there are errors in the books of account. Let us now analyse the errors which usually affect the Trial Balance and lead to its disagreement.

1. **Omission of posting in one account:** You are aware that both the debit and credit aspects of a transaction have to be posted in the ledger accounts. If you post it to the debit of one account and forget its posting to the credit of the other concerned account, it is bound to affect the Trial Balance. For example, an amount of Rs. 200 received from Ali, correctly entered on the debit side of the cash book but is not posted to the credit side of Ali's Account. This error shall result in the lower credit and hence the Trial Balance will not tally.
2. **Double posting in one account:** If by mistake you post an entry two times to the debit or to the credit of an account it would result in extra debit or credit and as such cause disagreement in the Trial Balance. If, however, the whole entry is posted twice i.e., both the debit and the credit aspects are posted twice, it won't affect the Trial Balance. It is because both the debit and the credit sides will be equally affected.
3. **Posting on the wrong side of an account:** When an entry is posted on the wrong side of an account i.e., instead of debit side it is posted on the credit side, it would also cause disagreement in the Trial Balance. In such a situation, the difference will be for double the amount. For example, Rs. 300 received from Khan which is correctly entered on the debit side of the Cash Book, but while posting it to Khan's Account, it is wrongly posted to the debit side instead of the credit side. This would mean that a debit of Rs. 600 (Rs. 300 in Cash Account and Rs. 300 in Khan's Account) has no corresponding credit. So, in the Trial Balance, the credit side will be lower by Rs. 600.
4. **Posting wrong amount in an account:** If you post an entry to the correct side of an account but commit an error in writing the amount, this would affect the Trial Balance. Suppose, in the above example you post the entry

correctly on the credit side of Khan's Account but the amount is wrongly put as Rs. 200. It would cause a difference of Rs. 100. In the Trial Balance, the credit side will be lower by Rs. 100.

5. **Wrong totalling of the subsidiary book:** If any subsidiary book is overcast or undercast, it affects the concerned account in ledger. Suppose the correct total of Sales Journal is Rs. 5,600, but it is actually totalled as Rs. 5,300. You know that the total of Sales Journal is posted to the credit side of the Sales Account. So, the Sales Account will be short by Rs. 300, and the Trial Balance will not tally.
6. **Omitting to post the total of a subsidiary book:** If the total of a subsidiary book is not posted to the concerned account, it would affect the Trial Balance. Such mistake relates only to the account where posting was to be done and as such affects only one account. Take for example, the Sales Journal. If its total of Rs. 18,900 is not posted to the credit of Sales Account, the credit side on the Trial Balance will be lower by Rs. 18,900.
7. **Wrong totalling or balancing of an account:** When an account is wrongly totalled or wrongly balanced, this would affect the Trial Balance. Suppose the debit side of Shyam's Account is totalled as Rs. 1,300 instead of Rs. 1,100. It would lead to wrong balance in Shyam's Account. Consequently, the debit total in the Trial Balance will be higher by Rs. 200. Similarly, if the totalling is correctly done but a mistake is committed in balancing the account, it would also cause a difference in the Trial Balance.
8. **Omission of an account from Trial Balance:** You know that all accounts which show some balance must be included in the Trial Balance. If you forget to write the balance of any account in the Trial Balance, it will not tally. In practice, cash book balances are often omitted from Trial Balance.
9. **Writing the balance of an account on the wrong side of the Trial Balance:** If the balance of an account which is to be shown in the debit column of the Trial Balance is actually shown in the credit column, the Trial Balances will not tally. It will be affected by double the amount. You noticed such error in respect of many items in illustration 3.
10. **Wrong totaling of the Trial Balance :** If a mistake is committed in totalling the Trial Balance amount columns of the Trial Balance itself, the Trial Balance will not tally. Thus, you learn about various errors which may cause differences in the Trial Balance. Note that these errors affect only one aspect (debit or credit). This upsets the debit-credit correspondence leading to the disagreement of the Trial Balance.

7.6 LOCATING ERRORS WHEN THE TRIAL BALANCE DISAGREES

When a Trial Balance disagrees, an attempt must be made to locate the errors and rectify them. If all errors are rectified and the Trial Balance is revised, it will tally.

The following routine procedure is usually adopted for locating the errors.

- a) Check the totals of both the debit and the credit columns of the Trial Balance.
- b) If the difference still persists, ascertain the exact amount of difference; and then

- i) See whether an account having that balance has been omitted from the Trial Balance. Suppose the debit column in Trial Balance is short by Rs. 630, it is just possible that an account with a debit balance of Rs. 630 has not been entered in the Trial Balance.
 - ii) Check whether an account with a balance equal to that difference has been entered twice in the Trial Balance.
 - iii) Take the half amount of difference, see whether there is any account with such balance in the Trial Balance and, if so, check whether it is entered in the correct column or not. If an account with a debit balance of Rs. 315 has been entered in the credit column, the debit column becomes short by Rs. 630.
- c) Verify whether (i) the balances of all the accounts are included in the Trial Balance, (ii) they are entered in the correct column, and (iii) their amounts have been correctly written. If no errors are found upto this stage, or the errors located have been duly corrected, but still the Trial Balance does not tally, there is need to take further action. You may take the following steps:
 - d) Check the totals of the lists of sundry debtors and sundry creditors.
 - e) Check the totals and balances of all accounts in the ledger.
 - f) Check the totals and the postings of all subsidiary books.
 - g) Check the postings of all amounts equal to the difference in Trial Balance. It is possible that a posting has been omitted. Similarly, check the postings of all amounts equal to half the difference. It is possible that the amount has been posted on the wrong side of the concerned account.
 - h) See that correct amounts have been brought forward from the previous pages.
 - i) Verify that all opening balances have been correctly entered in various accounts.
 - j) Compare the current year's Trial Balance with that of the previous year. Any variation noticed should be carefully checked.

The procedure outlined above, if carefully followed, should normally reveal all the errors. The errors are then rectified and a Revised Trial Balance is prepared. If no other errors exist, the Revised Trial Balance is likely to tally. However, if the Revised Trial Balance also does not tally, there is no alternative but to recheck the entire accounting work done during the year. Sometimes, all these efforts fail to reveal the errors. In such a situation, the difference may be placed to the debit or credit of a Suspense Account (as the case may be) and you may proceed with the preparation of the final accounts. Later on, as and when the errors come to light, they will be corrected through proper rectifying entries in the journal.

7.7 ERRORS NOT DISCLOSED BY TRIAL BALANCE

As stated earlier, the Trial Balance is only a reasonable proof (not a conclusive proof) of the arithmetical accuracy of accounting entries. There is no guarantee

that when the Trial Balance has tallied, there will be no errors left. As a matter of fact, there are a number of errors which do not affect the Trial Balance at all. They are:

1. **Errors of Principle:** When a transaction has not been recorded as per the rules of debit and credit, or some other accounting principle has been ignored, the errors so arising are called 'Errors of Principle'. Example of such errors are:

- i) A credit purchase of a fixed asset recorded in the Purchases Journal instead of the Journal Proper: This results in debiting the Purchases Account instead of the concerned fixed asset account. It means that a capital expenditure has been treated as a revenue expenditure. This is an error of principle. This does not disturb the debit-credit correspondence. Hence, the Trial Balance will not be affected.
- ii) An expenditure incurred on repairs of machinery debited to Machinery Account: As per rules it should have been debited to Machinery Repair Account, as it is a revenue expenditure. Debiting to Machinery Account amounts to treating it as a capital expenditure. It is therefore an error of principle. This also does not affect the Trial Balance because the debit has been duly recorded, though in the wrong account.
- iii) Salary paid to Shyam recorded in the Cash Book as a payment to Shyam: This results in debiting Shyam's personal account instead of the Salaries Account. This is also an error of principle and does not affect the Trial Balance.

2. **Errors of Omission:** When a transaction is completely or partially omitted to be recorded in books of account, it is called an 'Error of Omission'. If the transaction is omitted to be recorded in the subsidiary books or its posting is completely omitted, it is called an 'Error of Complete Omission'.

If, however, the posting is done in one account, but omitted to be done in the other, it is called an 'Error of Partial Omission'. For example, if a credit purchase of goods from Shyam is not recorded in the Purchases Journal or a credit purchase of furniture from Ram is duly recorded in the Journal Proper but no posting is done in any of the two accounts involved, then these will be termed as errors of complete omission. If the purchase of goods from Shyam is recorded in the Purchases Journal but is omitted to be posted in Shyam's Account, it will be called an error of partial omission.

Other examples of partial omission are: omission in carrying forward the total from one page to the other, omission to balance an account, and so on.

The errors of complete omission do not, affect the Trial Balance. But the errors of partial omission would certainly cause disagreement of the Trial Balance because they would lead to either short debit or short credit.

3. **Some Errors of Commission:** When an error is committed in recording a transaction in the subsidiary book with a wrong amount, or is committed in posting it to a wrong account or to the wrong side of an account, it is called an 'Error of Commission'. Errors like double posting, wrong totalling of an account, wrong carry forward, wrong balancing, etc., are also regarded as errors of commission. Such errors will generally affect the Trial Balance. But, if an error of commission is committed while recording a transaction in

any of the subsidiary books, it shall not affect the Trial Balance because both the debit and the credit are equally affected. Suppose, a machine of Rs. 5,000 purchased on credit from Gautam is recorded in the journal for Rs. 5,500. It means both the debit and the credit have been recorded for Rs. 5,500. Hence, the Trial Balance remains unaffected.

4. **Compensating Errors:** Those errors which nullify the effect of each other are called 'Compensating Errors'. In other words, compensating errors refer to such a group of errors wherein the effect of one error is compensated by the effect of another error or errors. Such errors do not affect the Trial Balance. For example, while posting an entry of Rs. 200 to the debit of Ram's personal account, we wrongly wrote Rs: 400. Then, while posting an entry of Rs. 500 to the debit of some other account we wrote Rs. 300. The first error will result in a higher debit of Rs. 200 whereas the second error will result in a lower debit of Rs. 200. Thus, the effect of the first error is nullified by the effect of the second error. So the Trial Balance will not be affected. Take another example. The Purchases Journal is overcast by Rs. 1,000 which means the Purchases Account will be debited in excess by Rs. 1,000. The sales journal also, by mistake, is overcast by Rs. 1000 which means the sales account will be credited in excess by Rs. 1000. These two mistakes together result in excess debit of Rs. 1,000 as well as an excess credit of Rs. 1,000. Thus, they cancel out each other and the Trial Balance remains unaffected.

Check Your Progress B

1. Select one of the following alternatives and tick the correct answer.
 - a) Overcasting of Purchases Journal would affect:
 - i) Sales Account
 - ii) Purchases Account
 - iii) Supplier's Account and Purchases Account
 - b) Sales to Benson Rs. 500 posted to his account as Rs. 50 would affect:
 - i) Sales Account
 - ii) Benson's Account
 - iii) Cash Account
 - c) Sales to Gill recorded in Purchases Journal would affect:
 - i) Sales Account
 - ii) Sales Account, Purchases Account and Gill's Account
 - iii) Purchases Account and Gill's Account
 - d) Purchases made on credit not recorded at all would affect:
 - i) Purchases Account
 - ii) Supplier's Account
 - iii) Purchases Account and Supplier's Account

- e) Amount paid to Billu posted to the credit side of his account would affect:
- i) Billu's Account ()
 - ii) Cash Account ()
 - iii) Cash Account and Billu's Account ()
- f) Amount received from Sita Ram posted to the credit of Mela Ram would affect:
- i) Sita Ram's Account ()
 - ii) Mela Ram's Account ()
 - iii) Sita Ram's Account and Mela Ram's Account ()
2. Give two examples of errors of principle.
-
-
-
3. Give two examples of compensating errors.
-
-
-
4. A few errors committed in Ahluwalia's books of account are given below. State which errors would affect the Trail Balance.
- a) Sales of Rs. 950 to Ram completely omitted from books of account.
 - b) Purchases of Rs. 720 from Shyam entered in the Purchases Journal as Rs. 700.
 - c) Purchases Journal is overcast by Rs. 1,000.
 - d) Sales Returns Journal is undercast by Rs. 200.
 - e) Amount paid to Agarwal wrongly posted to the debit of Mittal's Account.
 - f) Bank overdraft shown under debit column in the Trial Balance.
 - g) Sales of Rs. 500 to Sadiq entered in Sales Journal as sales to Mushtaq.
 - h) Wages paid for installation of machinery debited to Wages Account.

7.8 ADVANTAGES OF A TRIAL BALANCE

The following advantages accrue from a Trial Balance:

1. It is a reasonable proof of the arithmetical accuracy of accounting entries. If the two sides of a Trial Balance tally, it is an indication that the books of account are arithmetically correct. Of course, there may still be some errors left.

2. It contains the balances of all ledger accounts on a particular date. Thus it serves as a summary of the results of all transactions during the period. The position of each account can be judged simply by looking at the Trial Balance. The ledger may be referred only if some further details are required in respect of a particular account.
3. It acts as a basis for preparing the final accounts i.e., Profit & Loss Account and the Balance Sheet. Of course, one can prepare these statements even by taking each balance directly from the ledger. But, that will be too cumbersome.
4. Regular preparation of a trial balance ensures that the accounting staff will work carefully. They will keep the accounts up to date and strive hard to avoid mistakes.

7.9 LIMITATIONS OF A TRIAL BALANCE

The following can be considered as the limitations of Trial Balance:

1. Trial balance does not disclose all types of errors. Certain types of errors remain undetected even when the Trial Balance tallies. Hence, it is not a conclusive proof of the accuracy of the books of account.
2. A Trial Balance does not provide any additional information. You can not have any idea about the net result of the trading activity or about the financial position directly from the Trial Balance. Thus, the Trial Balance serves a limited purpose only.

Notwithstanding the limitations expressed above, the Trial Balance serves a useful purpose as a preparatory step in the preparation of final accounts.

7.10 RECTIFICATION OF ERRORS

Any error when located must be rectified. However, the rectification should not be made by overwriting or by striking off the wrong entry. This would destroy the authenticity of the books of account. Hence, the errors should always be corrected by making suitable entries called rectifying entries. For purposes of rectification, the errors are divided into two categories: (i) one-sided errors, and (ii) two-sided errors.

One-sided Errors : Certain errors affect only one side of an account, either the debit side or the credit side. Such errors are called ‘one-sided errors’. Examples of one-sided errors are:

- i) Rs. 100 received from Deshmukh was posted to his account as Rs. 10. It means Deshmukh’s Account has been credited with Rs. 10 instead of Rs. 100 and there is no mistake in the Cash Book. Thus, this error has affected only one side of an account.
- ii) Thw Purchase Book is overcast by Rs. 1000. This will affect the debit side of Purchases Account where the total of the Purchases Book is posted, and no other account is affected.

Two-sided Errors : Certain errors may affect two or more accounts. Such errors are called ‘two-sided errors’. Examples of two-sided errors are:

- i) A credit sale of Rs. 1,080 to Anand was wrongly recorded in the Sales Book for Rs. 1,800. This error will affect two accounts viz., Anand’s Account and Sales Account. Anand’s Account has been debited by Rs. 1,800 instead

of Rs. 1,080. The Sales Account has also been credited by an additional amount of Rs. 720 (Rs. 1,800—Rs. 1,080), because the Sales Book shows a higher total.

- ii) A sale of Rs. 500 made to Kamal has been posted on the debit side of Kishore's Account. This error will affect two accounts viz., Kamal's Account and Kishore's Account. An entry of Rs. 500 does not appear on the debit side of Kamal's Account whereas Kishore's Account has been wrongly debited with that amount.

7.10.1 Rectification of One-sided Errors

Generally errors are corrected by passing suitable journal entries. You know passing a journal entry means debiting one account and crediting another. But in the case of one-sided error only one account is involved. So it cannot be corrected by passing journal entry. It is rectified by noting the correction on the appropriate side. Take the first example of one-sided error. Deshmukh's Account was credited short by Rs. 90. This will be corrected by an additional entry for Rs. 90 on the credit side of his account as follows:

Deshmukh's Account

| Dr. | Cr. |
|-----|--|
| | By Difference in amount received from him posted on |
| | Rs. 90 |

In the second example of one-sided error, the Purchases Account is debited in excess by Rs. 1,000. This will be corrected by crediting the Purchases Account with Rs. 1,000 as follows:

Purchases Account

| Dr. | Cr. |
|-----|--|
| | By Overcasting of Purchases Book for the month of |
| | Rs. 1,000 |

The wrong total in the Purchases Book will be circled with red ink and the correct total entered above or below the circle. The person doing the rectification will also put his initials.

Let us take a few more examples of one-sided errors and study how they will be rectified.

- The Sales Returns Book for the month of June was undercast by Rs. 10 :**
You know the periodical total of the Sales Returns Book is posted to the debit side of Sales Returns Account. So, a mistake in totalling the Sales Returns Book will affect only the Sales Returns Account. It has been debited short by Rs. 10. So, this error can be corrected by an additional entry for Rs. 10 on the debit side of Sales Returns Account as shown below:

Sales Returns Account

| Dr. | Cr. |
|--|-----------|
| To Undercasting of Sales Returns Book for the month of June | Rs. 10 |

2. **A payment of Rs. 1,000 towards interest was posted twice to Interest Account :** You know when interest is paid it is recorded on the credit side of the Cash Book and posted On the debit side of Interest Account. The error lies in repeating the posting to interest Account. Thus, it has affected only the Interest Account which now shows an excess debit of Rs. 1,000. This will be corrected by crediting the Interest Account with Rs. 1,000 as follows:

Interest Account

| Dr. | Cr. |
|-----|--|
| | By Double posting from Cash Book on now, rectified |
| | Rs. 1,000 |

3. **A receipt of Rs. 300 towards commission was omitted to be posted :** You know receipt of commission is recorded on the debit side of the Cash Book and posted on the credit side of the Commission Account. The error lies in omitting to post. Hence, it has not been credited by Rs. 300. This error can be corrected by making the posting now as shown below:

Commission Account

| Dr. | Cr. |
|-----|---|
| | By Omission of posting from Cash Book |
| | Rs. 300 |

4. **A credit sale for Rs. 1,000 to Tiwari was posted to the credit side of his account:** You know a credit sale is entered in the Sales Book and posted on the debit side of the customer’s account from the Sales Book. This error relates to posting on wrong side of Tiwari’s Account. His account should have been debited and not credited. To correct this error, we have not only to remove the wrong credit of Rs. 1,000 from his account but also give a debit of Rs. 1,000 to his account. Hence, the error can be rectified by debiting Tiwari’s Account with double the amount i.e. Rs, 2,000 as shown below:

Tiwari’s Account

| Dr. | Cr. |
|---|-----------|
| To Posting of sales made to him on credit side on Now rectified | Rs. 2,000 |

Check Your Progress C

- What do you understand by one-sided error?

- The following errors have been committed in the books of account.
 - Purchase Book was overcast by Rs. 500.
 - Sales Book was undercast by Rs. 600.

- iii) Payment made to Krishna has not been posted to his account.
- iv) Rs. 675 received from Rahul was posted to the debit of his account.
- v) A total of Rs. 67 in the discount allowed column of the Cash Book was posted to the Discount Allowed Account as Rs. 76.
- vi) Payment of Rs. 750 towards salaries was posted twice to Salaries Account.

3. You are required to answer the following questions.

a) State the name of the account affected by each error.

- i)
- ii)
- iii)
- iv)
- v)
- vi)

b) State how you will rectify each error.

- i)
- ii)
- iii)
- iv)
- v)
- vi)

7.10.2 Rectification of Two-sided Errors

You have learnt that one-sided errors are corrected by noting the Correction on the appropriate side of the account affected by the error. These cannot be rectified by suitable journal entries because only one account was involved. But, the two-sided errors are mostly rectified by journal entries. It is because such errors affect two or more accounts and in most cases the debit and credit are equally affected. Take the case of first example of two-sided errors given earlier. A credit sale of Rs. 1,080 to Anand was wrongly recorded in the Sales Book as Rs. 1,800. The two accounts affected are: (i) Anand’s Account which shows an excess debit of Rs. 720, and (ii) Sales Account which stands credited in excess by Rs. 720. To rectify this error, we must credit Anand’s Account with Rs. 720 and debit the Sales Account with Rs. 720. So, a journal entry can be passed as follows:

| | | |
|-------------------|-----|-----|
| | Rs. | Rs. |
| Sales Account Dr. | 720 | |
| ToAnand | | 720 |

(Being sales of Rs. 1,080 to Anand wrongly recorded in the Sales Book as Rs. 1,800, now rectified)

Take the second example of two-sided errors given earlier. A sale of Rs. 500 made to Kamal was posted to the debit side of Kishore's Account. The two accounts affected are: (i) Kamal's Account which has not been debited by Rs. 500, and (ii) Kishore's Account which has been wrongly debited with Rs. 500. To rectify this error we have to debit Kamal's Account with Rs. 500 and credit Kishore's Account with Rs. 500. So, journal entry for the rectification of this error will be as follows:

| | | | |
|------------|-----|------------|-----|
| Kamal | Dr. | Rs. 500 | Rs. |
| To Kishore | | | 500 |

(Being rectification of wrong debit to Kishore for sale made to Kamal)

Now let us take a few more examples of two-sided errors and see how they will be rectified

1. **Sale of old machinery to Chakraborty for Rs. 600 was wrongly entered in the Sales Book.** You know the correct entry for this transaction would be as follows:

| | | | |
|----------------------|-----|------------|-----|
| Chakraborty | Dr. | Rs. 600 | Rs. |
| To Machinery Account | | | 600 |

Instead of the above entry, the transaction was recorded as

| | | | |
|------------------|-----|------------|-----|
| Chakraborty | Dr. | Rs. 600 | Rs. |
| To Sales Account | | | 600 |

Thus, debit to Chakraborty's Account is correctly given. But it has affected two other accounts (i) Machinery account: which has not been credited, and (iii) Sales Account which has been wrongly credited. This can be rectified by debiting the Sales Account since it has been wrongly credited, and crediting the Machinery Account which has not been credited. Hence, a rectifying entry can be passed

| | | | |
|----------------------|-----|------------|-----|
| Sales Account | Dr. | Rs. 600 | Rs. |
| To Machinery Account | | | 600 |

(Being rectification of wrong credit to sales for the sale of old machinery)

2. **A credit sale of Rs. 7,600 to Sharma was recorded in the Sales Book for Rs. 6,700:** It means the entry in the Sales Book has been made with Rs. 900 (Rs. 7,600 – Rs. 6,700) short. So, this error has affected two accounts: (i) Sharma's Account which is having a short debit of Rs. 900, and (ii) the Sales Account which is having a short credit of Rs. 900. It can be rectified by debiting Sharma's Account and crediting Sales Account. The rectifying journal entry will be as follows:

| | | | |
|------------------|-----|------------|-----|
| Sharma | Dr. | Rs. 900 | Rs. |
| To Sales Account | | | 900 |

(Being the rectification of a credit sale for Rs. 7,600 wrongly recorded as Rs. 6,700)

3. **A credit sale of Rs. 2,000 to Sinha was wrongly passed through the Purchases Book.** This should have been recorded in the Sales Book and the correct entry would have been:

| | | Rs. | Rs. |
|-------|------------------|-------|-------|
| Sinha | Dr. | 2,000 | |
| | To Sales Account | | 2,000 |

Since it was wrongly passed through Purchases Book, the effective entry is:

| | | Rs. | Rs. |
|-------------------|----------|-------|-------|
| Purchases Account | Dr. | 2,000 | |
| | To Sinha | | 2,000 |

By comparing the above two entries, you will notice that:

- Sinha's Account which should have been debited with Rs. 2,000 is actually credited with Rs. 2,000. So, to rectify this error in his account. You have to debit Sinha's Account with double the amount—Rs. 2,000 to cancel the wrong credit and another Rs. 2,000 to give the correct debit.
- Sales Account has not been credited with Rs. 2,000. So, to rectify error, the Sales Account should now be credited with Rs. 2,000.
- Purchases Account has been wrongly debited with Rs. 2,000. So, to rectify this error, the Purchases Account should be credited with Rs 1000.

After identifying the three accounts involved and nature of correction required in each account, you can easily make out the rectifying journal entry. This will as follows:

| | | Rs. | Rs. |
|-------|----------------------|-------|-------|
| Sinha | Dr. | 4,000 | |
| | To Purchases Account | | 2,000 |
| | To Sales Account | | 2,000 |

(Being the rectification for a credit sale wrongly passed through the Purchases Book)

4. **Repairs to machinery amounting to Rs. 400 was wrongly debited to Machinery Account :** You know when routine repairs are made, such expenditure is debited to Repairs Account and not to the concerned asset account. So, in this case the debit should have gone to Repairs Account and not to Machinery Account. To rectify this error, we should now debit the Repairs Account and credit the Machinery Account. Thus, the rectification entry will be:

| | | Rs. | Rs. |
|-----------------|----------------------|-----|-----|
| Repairs Account | Dr. | 400 | |
| | To Machinery Account | | 400 |

(Being the rectification of wrong debit to Machinery Account for routine repairs)

Illustration 4

How would you rectify the following errors in the books of Kiran & Co.?

- The Sales Returns Book has been undercast by Rs. 500.

2. The total of the Bills Receivable Book amounting Rs. 4,500 has been posted to the credit of Bills Receivable Account.
3. While posting Purchases Book to the ledger, the personal account of Kumar has been credited with Rs. 221 instead of Rs. 212.
4. Rs. 10,000 paid for the purchase of a TV set for the proprietor is debited to General Expenses Account.
5. An amount of Rs. 1,000 paid by Pran has been credited to the account of Praneet.
6. Goods sold to Inder for Rs. 1,200 have been entered in the Purchases Book.

Solution:

1. This error will be rectified by entering Rs. 500 on the debit side of Sales Returns Account by writing "To Undercasting of Sales Returns Book for the Month ofRs. 500".
2. This error will be rectified by entering an amount of Rs. 9,000 on the debit side of Bills Receivable Account by writing "To Wrong posting of the total of Bills Receivable Book on the opposite side Rs. 9,000".
3. Kumar's Account has been credited with an excess amount of Rs. 9 (Rs. 221— Rs. 212). This error will be rectified by debiting his account with Rs. 9 by writing "To Difference in amount posted from the Purchases Book onRs. 9".

4. The following journal entry is required for rectification:

| | | Rs. | Rs. |
|---|-----|--------|--------|
| Drawings A/c | Dr. | 10,000 | |
| To General Expenses A/c | | | 10,000 |
| (Being rectification of purchase of TV wrongly debited to General Expenses A/c) | | | |

5. The following journal entry is required for rectification:

| | | Rs. | Rs. |
|--|-----|-------|-------|
| Praneet | Dr. | 1,000 | |
| To Pran (Being rectification of wrong credit to Praneet for the amount paid by Pran) | | | 1,000 |

6. The following journal entry is required for rectification:

| | | Rs. | Rs. |
|--|-----|-------|-------|
| Inder | Dr. | 2,400 | |
| To Purchases A/c | | | 1,200 |
| To Sales A/c | | | 1,200 |
| (Being rectifying entry for sale to Inder wrongly entered in the Purchases Book) | | | |

Illustration 5

How would you rectify the following errors:

1. Rs. 3,000 received from the sale of old machinery has been wrongly posted to Sales Account.
2. Rs. 600, the cost of repairing the machinery has been wrongly charged to Machinery Account.
3. Goods purchase for Rs. 500 from Sanjay has been wrongly debited to Furniture Account.
4. A sales of Rs. 600 has been wrongly credited to the customer's account.
5. A payment of Rs. 460 on account of rent has been posted twice to the Rent Account.
6. An item of Rs. 197 has been debited to a personal account as Rs. 179.

Solution:

1. The following journal entry is required for rectification:

| | | | | |
|--|-----|-------|--|-------|
| | | Rs. | | Rs. |
| Sales A/c | Dr. | 3,000 | | |
| To Machinery A/c | | | | 3,000 |
| (Being rectifying entry for sale of old machinery credited to Sales A/c) | | | | |

2. The following journal entry is required for rectification:

| | | | | |
|--|-----|-----|--|-----|
| | | Rs. | | Rs. |
| Repairs A/c | Dr. | 600 | | |
| To Machinery A/c | | | | 600 |
| (Being rectification of wrong debit to Machinery A/c instead of Repairs A/c) | | | | |

3. The following journal entry is required for rectification:

| | | | | |
|--|-----|-----|--|-----|
| | | Rs. | | Rs. |
| Purchases A/c | Dr. | 500 | | |
| To Furniture A/c | | | | 500 |
| (Being rectifying entry for purchase wrongly debited to Furniture A/c) | | | | |

4. This error will be rectified by debiting the customer's account with Rs. 1,200 (double of Rs. 600) by writing "To Wrong posting from Sales Book on the credit side on Rs. 1,200"
5. This error will be rectified by entering Rs. 460 on the credit side of the Rent Account by writing "By Double posting from Cash Book onRs. 460"
6. The personal A/c has been debited Rs. 18 short (Rs. 197-179). To rectify this error, the personal A/c will be debited with the difference by writing "To Difference in amount posted on Rs. 18".

Check Your Progress D

1. Following errors have been detected:
 - a) A credit purchase of goods from Chetan amounting to Rs. 15,000 has been wrongly passed through the Sales Book.

- b) A Sale of an old Typewriter for Rs. 800 was passed through the Sales Book.
- c) Rs. 700 withdrawn for personal use has been debited to General Expenses Account.
- d) A credit sale of Rs. 2,300 to Zatin was omitted from Sales Book.
- e) Purchase of a wooden cupboard for Rs. 3,000 has been passed through the Purchases Day Book.

You are required to answer the following questions.

1. In case of each error name the accounts affected.
 - a) i).....
 - ii)
 - b) i).....
 - ii)
 - c) i).....
 - ii)
 - d) i).....
 - ii)
 - e) i).....
 - ii)
2. In case of each error, write the effect on the accounts involved.
 - a) i).....
 - ii)
 - b) i).....
 - ii)
 - c) i).....
 - ii)
 - d) i).....
 - ii)
 - e) i).....
 - ii)

7.11 SUSPENSE ACCOUNT AND RECTIFICATION

You have learnt the method of rectifying the errors. This method is used for rectifying the errors located before preparing the final accounts. After the corrections have been made, a revised Trial Balance is prepared which should normally tally. But, if it does not tally, it means there are still some errors which have not been

detected. As considerable time and effort have already been spent in locating and rectifying the errors, it may not be possible to wait any longer because it will delay the preparation of final accounts. Hence, in such situation the usual practice is to place the difference to Suspense Account and tally the Trial Balance for the time being. If the total of the debit column in the Trial Balance is more than the total of its credit column, the difference is placed to the credit of Suspense Account and the Trial Balance will tally. Similarly, if the credit column total is more than the debit column total, the difference is placed to the debit of Suspense Account. The Suspense Account thus created is shown in the Balance Sheet and is carried forward to the next year.

Note that the Suspense Account is not the result of any transaction. It merely represents the net effect of errors which still remain undetected. Therefore, during the next accounting year, after the errors are located and rectified, the Suspense Account will get closed. Let us now understand how errors will be corrected during the next year. As for the two sided errors, there is no change in the method of rectification. These errors do not affect the agreement of Trial Balance and hence do not involve the Suspense Account. They are rectified by means of the journal entries as usual. This is not the case in respect of one-sided errors. When one-side errors were to be corrected before preparing the Trial Balance we did it by writing an appropriate note in the concerned account. But, when they are to be corrected during the next year i.e., after Suspense Account has been created, the rectification will be through an appropriate journal entry. The one-sided error usually affects only one account. So to pass a journal entry for rectification of such error, we shall now take Suspense Account as the other account involved. For example, Rs. 580 received from Shyam were posted to his account as Rs. 850. It means Shyam's Account is to be debited with Rs. 270.

You can now pass the following journal entry to rectify this error:

| | | | |
|-----------|---|------------|-----|
| Shyam A/c | Dr. | Rs. 270 | Rs. |
| | To Suspense Account (Being rectification entry) | | 270 |

Thus all errors, whether they are two-sided or one-sided will now be rectified by means of journal entries.

Let us assume that a businessman could not tally his Trial Balance. The difference of Rs. 1 between the totals of the two columns was put against the Suspense Account on its debit side and the Trial Balance was made to tally temporarily. The Suspense Account was carried forward to the next accounting year. The following errors were then located:

1. An amount of Rs. 99 was omitted to be posted to the credit of a customer's account from the Cash Book.
2. The Sales Book was overcast by Rs. 100.

The first error involved the omission of posting to the credit of customers account. So, to rectify this error, you will have to credit customer's account with Rs. 99. As the Suspense Account is in existence, the corresponding debit would be given to the Suspense Account. Thus, the journal entry will be:

| | | | | |
|--|--|-----|-----|----------------------|
| | | Rs. | Rs. | Trial Balance |
| Suspense A/c Dr. | | 99 | | |
| To Customer's A/c | | | 99 | |
| (Being the rectification of omission in posting) | | | | |

The second error refers to Sales Book being overcast by Rs. 100. It means that the Sales Account has been credited with Rs. 100 in excess. To rectify this error, the Sales Account will have to be debited with Rs. 100. The corresponding credit would be given to Suspense Account. The rectifying entry will be:

| | | | | |
|--|--|-----|-----|--|
| | | Rs. | Rs. | |
| Sales A/c Dr. | | 100 | | |
| To Suspense A/c | | | 100 | |
| (Being the rectification of overcasting in Sales Book) | | | | |

The Suspense Account, after posting the two rectification entries, would appear as follows:

Suspense Account

| Dr. | | | | Cr. |
|--------------------------------|-----|--------------|--|-----|
| To Difference in Trial Balance | Rs. | | | Rs. |
| | 1 | By Sales A/c | | 100 |
| To Customer's A/c | 199 | | | |
| | 100 | | | 100 |
| | | | | |

With the posting of the two rectification entries the Suspense Account got closed. Note that the opening balance in Suspense Account simply shows the net effect of these errors. **Sometimes, the balance of Suspense Account is not given. In that case it can be worked out after completing the posting of the rectification entries.**

Suppose in the above example, the amount with which the Suspense Account was opened was not given. Leave the first line blank on both the debit and credit sides of the Suspense Account and post the rectification entries. The difference between the totals of two sides will be considered as the balance with which the Suspense Account was opened. This is based on the assumption that there are no more errors remaining undetected.

Look at illustrations 6, 7 and 8 and study how errors are rectified when Suspense Account is in existence.

Illustration 6

The Trial Balance of Siva did not tally. The credit side exceeded by Rs. 1,455. This amount was entered in the debit column against Suspense Account and the Trial Balance was made to tally.

Later, the following errors were discovered.

1. Goods worth Rs. 1,250 were sold to Mahesh on credit. This was entered in the Sales Book but was not posted.
2. Goods worth Rs. 313 were returned by Ahmed. The amount was credited to his account but was not recorded in the Returns Inwards Book.

3. Manoj paid Rs. 670 but his account was wrongly credited with Rs. 607.
4. An amount of Rs. 375 owed by Dinesh was omitted from the schedule of Sundry Debtors.
5. The Sales Book was undercast by Rs. 420. Rectify the errors and show the Suspense Account.

Solution:**JOURNAL**

| | | Rs. | Rs. |
|----|---|-------|-------|
| 1. | Mahesh Dr. To Suspense A/c (Being sales to Mahesh not posted) | 1,250 | 1,250 |
| 2. | Returns Inwards A/c Dr. To Suspense A/c (Being goods returned not recorded in Returns Inwards Book though credited to personal account) | 313 | 313 |
| 3. | Suspense A/c Dr. To Manoj (Being Cash paid by Manoj underposted) | 63 | 63 |
| 4. | Sundry Debtors A/c Dr. To Suspense A/c (Being Dinesh's debit omitted from the list of Sundry Debtors) | 375 | 375 |
| 5. | Suspense A/c Dr. To Sales A/c (Being rectification of overcasting in Sales Book) | 420 | 420 |

Suspense Account

| Dr. | | Cr. |
|--------------------------------|-------|------------------------|
| | Rs. | Rs. |
| To Difference in Trial Balance | 1,455 | By Mahesh |
| To Manoj | 63 | By Returns Inwards A/c |
| To Sales A/c | 420 | Sundry Debtors A/c |
| | 1,938 | |
| | | 1,938 |

Illustration 7

Kishan, the accountant, found certain errors in the books. He transferred the difference in the Trial Balance to the credit of a Suspense Account. Subsequently, the following errors were discovered. Pass the necessary journal entries to rectify the errors and show the Suspense Account.

1. An amount of Rs. 300 paid as Commission was not posted to Commission Account.
2. Rs. 3,400 paid towards rent was wrongly entered in the Rent A/c as Rs. 4,300.

3. Discount Received column of the Cash Book was undercast by Rs. 100.

Trial Balance

4. Cash sales not posted to the Sales Account amounted to Rs. 1,000.

Solution:

JOURNAL

| | | Rs. | Rs. |
|----|--|-----|-----|
| 1. | Commission A/c Dr. To Suspense A/c (Being the omission of posting to commission A/c rectified) | 300 | 300 |
| 2. | Suspense A/c Dr. To Rent A/c (Being excess debit to Rent Account now rectified) | 900 | 900 |
| 3. | Suspense A/c Dr. To Discount Received A/c (Being rectification of undercasting in the discount received column of the Cash Book) | 100 | 100 |
| 4. | Suspense A/c Dr. To Sales A/c (Being the omission of posting to sales account now rectified) | 100 | 100 |

Suspense Account

| Dr. | | Cr. | |
|--------------------------|--------------|--------------------------------------|--------------|
| | Rs. | | Rs. |
| To Rent A/c | 900 | By Balance b/d (balancing figure) | 1,700 |
| To Discount Received A/c | 100 | By Commission A/c | 300 |
| To Sales A/c | 1,000 | | |
| | <u>2,000</u> | | <u>2,000</u> |

Illustration 8

Rectify the following errors assuming that a Suspense Account was opened.

1. A purchase made from Anthony & Co. for Rs. 8,000 was not entered in the Purchases Book.
2. An amount of Rs. 500 received from Mr. Roy was credited to Ray's A/c.
3. A sale of Rs. 600 to Gopal was debited to his account as Rs. 6,000.
4. Salaries paid amounting to Rs. 1,000 was wrongly debited to Wages Account.
5. Rs. 450 received on account of interest stands wrongly credited to Commission Account.

6. The total of Returns Outwards Book amounting to Rs. 560 was not posted in the ledger.
7. A credit sale of Rs. 250 to Rakesh was wrongly credited to his Account.
8. A credit sale of Rs. 520 to Madhu debited to him as Rs. 250.
9. A credit purchases from Kailash of Rs. 400 was debited to him.
10. In Cash Book, the total of Discount Allowed column of Rs. 304 has been carried forward as Rs. 403.

JOURNAL

| | | Rs. | Rs. |
|----|---|------------------|---------------|
| 1. | Purchases A/c To Anthony & Co. (Being the omission of credit purchases, now rectified) | Dr. 8,000 | 8,000 |
| 2. | Ray To Roy (Being credit given to Ray's account instead of Roy's account, now rectified) | Dr. 500 | 500 |
| 3. | Suspense A/c To Gopal (Being excess debit given to Gopal's A/c, now rectified) | Dr. 5,400 | 5,400 |
| 4. | Salaries A/c To Wages A/c (Being debit to Wages A/c instead of Salaries A/c, now rectified) | Dr. 1,000 | 1,000 |
| 5. | Commission A/c To Interest A/c (Being credit given to Commission A/c instead of interest A/c, now rectified) | Dr. 450 | 450 |
| 6. | Suspense A/c To Returns Outwards A/c (Being the omission of posting total of Returns Outwards Book, now rectified) | Dr. 560 | 560 |
| 7. | Rakesh To Suspense A/c (Being wrong credit given to Rakesh, now rectified) | Dr. 500 | 500 |
| 8. | Madhu To Suspense A/c (Being short amount debited to Madhu now rectified) | Dr. 270 | 270 |

| | | Dr. | 800 | 800 | Trial Balance |
|-------------------------|--|-----|-----|-----|---------------|
| 9. | Suspense A/c To Kailash (Being debit given to Kailash instead of credit, now rectified) | | | | |
| 10. | Suspense A/c To Discount Allowed A/c (Being excess amount carried forward in Cash Book, now rectified) | Dr. | 99 | | 99 |
| Suspense Account | | | | | |
| Dr. | | | | | Cr. |

| | | Rs. | Rs. |
|-------------------------|-------|-----------------------------------|-------|
| To Gopal | 5,400 | By Balance b/d (balancing figure) | 6,089 |
| To Returns Outward A/c | 560 | By Rakesh | 500 |
| To Kailash A/c | 800 | By Madhu | 270 |
| To Discount Allowed A/c | 99 | | |
| | 6,859 | | 6,859 |

Check Your Progress E

1. The following errors were found in the books of Raghavan. The Trial Balance was out by an excess credit of Rs. 3,720. The difference has been placed to the debit of Suspense Account.
 - a) The discount column of the Cash Book on the debit side has been overcast by Rs. 25.
 - b) A credit sale of Rs. 1,525 to Rajesh has been wrongly posted to the credit of his account.
 - c) The total of the Purchases Returns Book has been overcast by Rs. 605.
 - d) A sum of Rs. 784 received from Nagesh has been posted to his account as Rs. 874.

| S. No. | Account to be debited | Account to be credited |
|--------|-----------------------|------------------------|
| a) | | |
| b) | | |
| c) | | |
| d) | | |

7.12 EFFECT OF RECTIFYING ENTRIES ON PROFITS

You have seen that the creation of Suspense Account helps in tallying the Trial Balance and avoiding delay in the preparation of final accounts. The errors still remain to be detected and rectified. So, the Profit and Loss Account prepared from such Trial Balance is subject to the undetected errors. The profit thus arrived at may be less or more than the actual profits. Similarly, when the errors are

detected and rectified during the next year, the rectifying entries will have their effect on the profit of the next year.

The profit is affected only if the errors involve accounts which usually appear in the Trading and Profit and Loss Account (nominal accounts) and not those which appear in the Balance Sheet (real and personal accounts).

Let us understand it with the help of an example. Suppose Rs. 24,000 paid for salaries during 2017 was posted to the Salaries Account as Rs. 20,400. This error has resulted in short debit of Rs. 3,600 to Salaries Account and so the salaries charged to Profit and Loss Account are short by Rs. 3,600. This would overstate the profits of 2017. When this error will be detected in 2018 and the rectifying entry passed, Rs. 3,600 will be added to salaries of 2018 and so the profit of 2018 will be decreased by Rs. 3,600. Thus, both the errors and the rectifying entries affect the profit. The effect of rectifying entries will be the reverse of the effect of errors.

The effect of errors and their rectification on the profits has been presented in a summarised form in Table 7.1.

Table 7.1: Effect of Errors and Rectifying Entries on Profits

| Nature of Error in Nominal Accounts | Effect of Error on Profit | Effect of Rectifying Entry on Profit |
|--|----------------------------------|---|
| Excess debit | reduces | increases |
| Excess credit | increases | reduces |
| Short debit | increases | reduces |
| Short credit | reduces | increases |
| Omission of debit | increases | reduces |
| Omission of credit | reduces | increases |

Look at illustration 9. It shows rectifying entries and their effect on profits.

Illustration 9

A businessman finds that he could tally his Trial Balance of 2017 only by opening a Suspense Account. During 2018, he discovered the following errors:

1. The Discount Allowed column of the Cash Book was overcast by Rs. 25.
2. Sale of old machinery amounting to Rs. 550 had been credited to Sales A/c.
3. A Sale of Rs. 780 to Ahmed had been debited to his account as Rs. 870.
4. The total of Bill Payable Book amounting to Rs. 4,000 for the month of June was not posted into the ledger.

Rectify the above errors and prepare the Suspense A/c. Also explain the effect of rectifying errors on the profits of 2018.

JOURNAL

| | | Rs. | Rs. |
|----|--|--------------|-------|
| 1. | Suspense A/c To Discount Allowed A/c (Being the rectifying entry for overcasting of discount allowed column) | Dr. 25 | 25 |
| 2. | Sales A/c To Machinery A/c (Being the rectifying entry for sales of Machinery wrongly credited to Sales Account) | Dr. 550 | 550 |
| 3. | Suspense A/c To Ahmed (Being rectifying entry for excess debit to Ahmed's Account) | Dr. 90 | 90 |
| 4. | Suspense A/c To Bill Payable A/c (Being the rectifying entry for omission of posting of the total of Bills Payable Book) | Dr. 4,000 | 4,000 |

Suspense Account

| Dr. | | Cr. |
|-------------------------|--------------|---|
| | Rs. | Rs. |
| To Discount Allowed A/c | 25 | By Balance b/d (balancing figure) 4,115 |
| To Ahmed | 90 | |
| To Bills Payable A/c | 4,000 | |
| | <u>4,115</u> | <u>4,115</u> |

Effect on Net Profit of 2018

| | Rectifying Entry | Increases | Decreases |
|----|--------------------------------|-----------|-----------|
| | | Rs. | Rs. |
| 1. | Credit to Discount Allowed A/c | 25 | — |
| 2. | Debit to Sales A/c | — | 550 |
| 3. | No nominal A/c is involved | — | — |
| 4. | No nominal account is involved | — | — |
| | | 25 | 550 |
| | Net decrease in Profits | | 525 |

In the above illustration, you observed that errors were committed during 2017 and the rectifying entries were passed in the books of 2018. This unnecessarily affected the profits of 2018. In order that the profits of the year in which rectifying entries are passed is not affected, a new account called Profit and Loss Adjustment Account is opened. Now, all amounts which are to be debited or credited to nominal accounts

in the rectifying entries will be debited or credited to the Profit and Loss Adjustment Account. The balance of the Profit and Loss Adjustment Account is directly adjusted in Capital. The current year's profit will thus remain unaffected.

The rectifying entries 1 and 2 of illustration 9 which involve debit and credit to nominal accounts can now be shown as follows:

JOURNAL

| | | Rs. | Rs. |
|----|--|-----|-----|
| 1. | Suspense A/c Dr. To Profit and Loss Adjustment A/c (Being the rectification of overcasting the discount allowed column) | 25 | 25 |
| 2. | Profit & Loss Adjustment A/c Dr. To Machinery A/c (Being the rectification for wrong credit given to Sales Account) | 550 | 550 |

The Profit and Loss Adjustment Account will be as follows:

Profit and Loss Adjustment Account

| Dr. | | Cr. | |
|------------------|-----|---------------------------|-----|
| | Rs. | | Rs. |
| To Machinery A/c | 550 | By Suspense A/c | 25 |
| | | By Capital A/c (Transfer) | 525 |
| | 550 | | 550 |

Check Your Progress F

1. State how the rectification of the following errors will effect the profits. Assume that a Suspense Account has been created.
 - i) The total of the discount allowed column of the Cash Book, amounting to Rs. 40, had been posted to the credit of Discount Received Account.
.....
.....
 - ii) The total of the Purchases Book has been overcast by Rs. 100.
.....
.....
 - iii) The Returns Outwards Book has been overcast by Rs. 80.
.....
.....
 - iv) Rs. 105 spent on repairs to furniture had been debited to Furniture Account.
.....
.....

- v) A cheque for Rs. 100 received from Mohinder, had been recorded in the Cash Book, but it was not posted to Mohinder's Account.

.....
.....
.....

7.13 LET US SUM UP

1. It is necessary to prepare a Trial Balance before preparing the final accounts. It verifies the arithmetical accuracy of the books of account.
2. When a Trial Balance does not tally, it means that there are errors in books of account. A series of steps are taken to locate errors.
3. There are certain errors which affect the Trial Balance and there are some which do not.
4. Errors of principle, errors of complete omission, certain errors of commission in subsidiary books, and the compensating errors are not disclosed by the Trial Balance.
5. Though the Trial Balance has its limitations, it is useful in ensuring the arithmetical accuracy of the books of account.
6. When the Trial Balance does not tally it means that there are errors in the books of account. Attempts are made to locate the errors and rectify them.
7. One-sided errors which affect only one account are rectified by means of a suitable note on the relevant side in the concerned account.
8. Two-sided errors, involving two or more accounts, are rectified by means of journal entries.
9. If the Trial Balance does not tally even after the detected errors have been rectified, the difference is put against a Suspense Account to avoid delay in preparing the final accounts.
10. The Suspense Account is carried forward to the next accounting year and as and when the errors are located, they are rectified.
11. When the Suspense Account is in existence, all errors are rectified by means of journal entries.
12. When all the errors are rectified, the Suspense Account gets closed.
13. When errors are rectified during the next account year, the rectification entries involving nominal accounts affect the profits of the next year. To avoid such effect, Profit and Loss Adjustment Account can be opened and its balance is directly adjusted in capital.

7.14 KEY WORDS

Compensating Errors : A group of errors wherein the effect of an error is counter-balanced (or compensated) by the effect of one or more errors, as a result of which the agreement of Trial Balance remains unaffected.

Errors of Principle An error committed by ignoring or misapplying some principles of accounting while recording a transaction in the books of account.

Errors of Complete Omission: An error committed in completely omitting to record a transaction in the books of account.

Errors of Partial Omission : An error committed in omitting to post one aspect of an entry in the ledger.

Errors of Commission : A clerical error committed while recording or posting of a transaction.

One-sided error : An error which affects the debit or credit side of one account only.

Profit and Loss Adjustment Account : An account opened for avoiding the effect of rectifying entries in respect of previous year's errors on the profit or loss of the current year.

Suspense Account : An account opened to make the Trial Balance tally temporarily. It represents the net effect of undetected one-sided errors.

Two-sided errors : An error which involves two or more accounts and both the debit and credit aspects.

7.15 SOME USEFUL BOOKS

Frank Wood. Book-keeping and Accounts (London: Pitman, 1996)

Grewal. TS. Double Entry Book-keeping (New Delhi: Sultan Chand & Sons, 2018)

Maheshwari, S.N. Principles and Practice of Accountancy (New Delhi: Arya Book Trial **Balance** Depot, 2018)

Frank Wood, 1996. Book-keeping and Accounts, Pitman Publishing Limited: London.

Grewal, T.S. 2018. Double Entry Book-keeping, Sultan Chand & Sons: New Delhi.

Maheshwari, S.N. 2018. Principles and Practice of Accountancy, Arya Book Depot: New Delhi.

Patil, V.A., and Korlahalli, J.S. 2018. Principles and Practice of Book-keeping, R. Chand & Co.: Delhi.

7.16 ANSWERS TO CHECK YOUR PROGRESS

A 2 (a) Debit (b) Debit (c) Debit (d) Debit (e) Debit (f) Credit
(g) Credit (h) Debit (i) Debit (j) Credit (k) Debit (l) Debit
(m) Debit (n) Debit (o) Debit (p) Credit

B 1 (a) i (b) ii (c) ii (d) iii (e) i (f) ii

B 4 Errors (c), (d) and (f) would affect the Trial Balance

C 2 a) i) Purchases Account

- ii) Sales Account
 - iii) Krishna's Account
 - iv) Rahul's Account
 - v) Discount Allowed Account
 - vi) Salaries Account
- b)
- i) Credit Purchases Account with Rs. 500
 - ii) Credit Sales Account with Rs. 600
 - iii) Debit Krishna's Account
 - iv) Credit Rahul's Account with Rs. 1,350
 - v) Credit Discount Allowed Account with Rs. 9
 - vi) Credit Salaries Account with Rs. 750
- D 1 a)
- i) Chetan's Account
 - ii) Purchases Account
 - iii) Sales Account
- b)
- i) Typewriter Account
 - ii) Sales Account
- c)
- i) Drawings Account
 - ii) General Expenses Account
- d)
- i) Zatin's Account
 - ii) Sales Account
- e)
- i) Furniture Account
 - ii) Purchases Account
- 2 a)
- i) Chetan's Account debited with Rs. 15,000 instead of being credited.
 - ii) Purchases Account not debited with Rs. 15,000
 - iii) Sales Account credited in excess with Rs. 15,000
- b)
- i) Typewriter Account not credited
 - ii) Sales Account credited in excess
- c)
- i) Drawings Account not debited
 - ii) General Expenses Account debited in excess
- d)
- i) Zatin's Account not debited
 - ii) Sales Account not credited
- e)
- i) Furniture Account not debited
 - ii) Purchases Account debited in excess

- E a) i) Debit Suspense Account
ii) Credit Discount Allowed Account
- b) i) Debit Rajesh's Account
ii) Credit Suspense Account
- c) i) Debit Purchases Returns Account
ii) Credit Suspense Account
- d) i) Debit Nagesh's Account
ii) Credit Suspense Account
- F1 i) Profit will decrease by Rs. 80 because the rectifying entry will involve debiting Rs. 40 to Discount Allowed Account and Rs. 40 to Discount Received Account.
- ii) Profit will increase by Rs. 100.
- iii) Profit will decrease by Rs. 80.
- iv) Profit will decrease by Rs. 105.
- v) No effect on profit.

The net effect will be a decrease in the Profits by Rs. 165.

7.17 TERMINAL QUESTIONS/EXERCISES

Questions

- Why do you regard Trial Balance as a test of the arithmetical accuracy of the books of account? List the errors that will be disclosed by the Trial Balance.
- If the Trial Balance does not tally, it means there are some errors in books of account. How are these errors located? Describe the procedure fully.
- Is the Trial Balance a conclusive proof of the accuracy of the books of account? Discuss the errors not disclosed by the Trial Balance.
- What are the different types of errors that are usually committed in recording transactions? Explain with examples.
- State the advantage of preparing a Trial Balance. Also give its limitations, if any.
- What are one-sided errors? Give five examples. Explain the method of rectifying one-sided errors.
- What are two-sided errors? Give five examples and show how two-sided errors are corrected?
- What is a Suspense Account? When is it opened? How do you rectify the error when a Suspense Account that has already been opened?
- Does rectification of errors in a subsequent accounting period always affect the trading result of the current accounting period? Explain with examples.

UNIT 8 DEPRECIATION

Structure

- 8.0 Objectives
- 8.1 Introduction
- 8.2 What is Depreciation?
- 8.3 Depreciation and other Related Concepts
- 8.4 Causes of Depreciation
- 8.5 Objectives of Providing Depreciation
- 8.6 Factors Influencing Depreciation
- 8.7 Methods of Recording Depreciation
 - 8.8 Methods for Providing Depreciation
 - 8.8.1 Fixed Instalment Method
 - 8.8.2 Diminishing Balance Method
 - 8.8.3 Difference between Fixed Instalment Method and Diminishing Balance Methods
 - 8.8.4 Change of Method
- 8.9 Let Us Sum Up
- 8.10 Key Words
- 8.11 Some Useful Books
- 8.12 Answers to Check Your Progress
- 8.13 Terminal Questions/Exercises

8.0 OBJECTIVES

After going through this unit you should be able to:

- define depreciation;
- distinguish depreciation from other related concepts;
- state the causes of depreciation;
- describe the objectives of providing depreciation;
- state the factors influencing the amount of depreciation;
- explain the methods of recording depreciation;
- list various methods of providing depreciation; and
- prepare accounts under fixed instalment and diminishing balance methods of providing depreciation.

8.1 INTRODUCTION

While preparing final accounts you have to provide for depreciation on all fixed assets so as to work out the correct amount of profit or loss for the accounting

period. Adjustments usually contain an item asking you to charge depreciation on various fixed assets at some given rate and you know how to show it in final accounts In this unit we shall have a detailed discussion on depreciation and study the basic factors influencing the amount of depreciation and various methods of providing and accounting for the same.

8.2 WHAT IS DEPRECIATION?

You are already familiar with the distinction between revenue expenditure and capital expenditure. You are aware that when the benefit of an expenditure is available beyond the accounting year (for one or more years) such an expenditure is treated as capital expenditure and it often results in acquisition of an asset. Since many accounting years are likely to receive benefits on account of the use of such an asset, the cost of investment must necessarily be allocated over the period of its useful life and charged to the Profit and Loss Account. **Allocation of the appropriate amount to each period is called depreciation which represents the expire portion of the cost of an asset.**

8.3 DEPRECIATION AND OTHER RELATED CONCEPTS

Sometimes the terms depletion, amortisation etc., are used interchangeably with depreciation. These terms in fact are used in a different context. Let us understand the distinction between depreciation and such related concepts.

Depreciation and Depletion : The term ‘depletion’ is used in respect of the extraction of natural resources from wasting assets such as quarries, mines, etc. and refers to, the reduction in the available quantity of the material. As a matter of fact, depletion is regarded as a method of computing the depreciation on wasting assets. Thus, it has a limited application. Depreciation, on the other hand, is a wider term and refers to a reduction in the value of all kinds of fixed assets arising from their wear and tear.

Depreciation and Amortisation : The terms ‘amortisation’ refers to writing off the proportionate value of the intangible assets such as copyrights, patents, goodwill, etc., while depreciation refers to the writing off the expired cost of the tangible assets like machinery, furniture, building etc.

Depreciation and Obsolescence: Obsolescence refers to the decrease in usefulness arising on account of the external factors like change in technology, new inventions. change of style, etc. Thus, it is caused mainly on account of the asset becoming out of date, and old fashioned. Depreciation on the other hand, is a functional loss generally arising on account of wear and tear, Obsolescence, in fact, is regarded as one of the causes of depreciation.

Depreciation and Fluctuation : Fluctuation refers to an increase or decrease in the market price of an asset. Such a change is usually temporary. Depreciation differs from fluctuation in the following respects.

- i) Depreciation is concerned with book value of asset while fluctuation is related to the market value.
- ii) Depreciation refers only to the decrease while fluctuation refers to either increase or decrease.
- iii) Depreciation reflects a permanent decrease while fluctuation is only a temporary phenomenon.

8.4 CAUSES OF DEPRECIATION

The causes of depreciation can be stated as follows:

1. **Wear and Tear :** Wearing out of the asset on account of its constant use is called wear and tear. This causes a definite reduction in the value of the asset and is regarded as the major source of depreciation.
2. **Lapse of Time :** Normally, the passage of time also causes some reduction in the value of fixed assets because as they become old their value stands reduced. That is why the depreciation is usually charged on time basis. In case of certain assets like lease, patents, etc., the value decreases with passage of time as they generally have a fixed number of years of legal life. For example, a building is taken on lease for a period of 10 years costing **Rs. 1,00,000**. The yearly

depreciation of lease will amount to Rs. 10,000 (1/10 of Rs. 1,00,000) and charged as such to the Profit and Loss Account every year.

- 3. **Obsolescence:** The acquisition of an improved model may render the existing machine obsolete. As the new machine performs the same operation more quickly and/or more economically existing machine is said to have become out of date or obsolete. This causes a drastic reduction in the value of existing machinery and the amount of depreciation is bound to be heavy.
- 4. **Depletion:** Some assets are of a wasting character. For example mines, quarries, oil wells etc.. Due to continuous extraction of materials the natural resources get depleted. Depreciation, in case of such assets is often computed on the basis of actual depletion. For example, a coal mine has the coal deposits of 200 million tons. In the first year we extract 10 m. tons of coal. The depreciation in the first five years shall amount to 10/200 of the cost of mine.

On the basis of the causes mentioned above, it can be said that depreciation is a permanent and continuous reduction in the value of an asset due to wear and tear, passage of time, obsolescence, depletion or any other cause.

8.5 OBJECTIVES OF PROVIDING DEPRECIATION

You know depreciation is treated as a loss and is chargeable to the Profit and Loss Account every year. The justification for charging depreciation can be explained as follows

- 1. **Ascertaining the true profits:** Depreciation represents the expired cost of a fixed asset caused by its usage in business, This cost is a part of the total expenses incurred in earning the revenue during an accounting period and must be taken into account for arriving at the correct amount of profit or loss for the period. If depreciation is not charged, the expenses and losses will understate and the Profit and Loss Account will show higher profits making the concern pay higher taxes.
- 2. **Ascertaining the true cost of production :** Depreciation on machinery and other fixed assets in the factory is an important component of the cost of production specially when the unit is not labour intensive. So if no provision is made for depreciation, the cost calculations will be incorrect.
- 3. **Presentation of true financial position:** The value of fixed assets reduces from year to year on account of their usage and passing of time. They must be shown in the Balance Sheet at their reduced values otherwise it will not reflect the true financial position of the business. Hence depreciation must be taken into account. It will enable the concern to show fixed assets at their proper values in the Balance Sheet.
- 4. **Funds for replacement of assets :** Charging depreciation reduces the profits available for distribution It enables the concern to retain a part of its profit and thus accumulate funds for the replacement of the assets as and when necessary.

Check Your Progress A

- 1. What is depreciation?

.....

.....

.....

2. How is depreciation different from amortisation ?

.....

3. State whether the following statements are **True** or **False**.

- i) Depreciation is charged also on current assets.
- ii) Profits will be overstated if depreciation is not charged.
- iii) Expenses will be understated if depreciation is not charged
- iv) If adequate maintenance expenditure is incurred, depreciation need not be charged.
- v) Depreciation is charged to reduce the value of asset to its market value,
- vi) Depreciation is charged only on the original purchase price of the asset.
- vii) When market value of an asset is higher than book value, depreciation is not charged.
- viii) The main cause of depreciation is wear and tear caused by its usage.

8.6 FACTORS INFLUENCING DEPRECIATION

The amount of depreciation to be charged to the Profit and Loss Account in respect of a particular fixed asset is affected by following factors:

- 1. **Cost of the asset :** Cost of the asset should include purchase price and all other costs incurred to bring the asset to usable condition like transportation costs, erection charges, etc. It is to be noted that financial charges, such as interest on loan taken for the purchase of the asset is not to be included in the original cost of an ‘asset.
- 2. **Estimated working life of the asset:** The useful or economic life of the asset can be stated in terms of time i.e., years, months, hours or in terms of quantity, i.e., number of units of output or any other operating measure such as kilometres in the case of lorries, motor vans, etc.
- 3. **Estimated Scrap value :** Scrap Value (also called salvage value, residual value) refers to the estimated amount expected to be realized when the asset is sold to the end of its useful life. While the original cost of an asset can be correctly determined, useful life and salvage value can only be estimated, based on certain assumptions.

The total amounts of depreciation to be written off during the life time of an asset is calculated as follows

| | |
|---|-------|
| | Rs. |
| Total Cost of Asset | ..... |
| Less Estimated Scrap Value | ..... |
| Total amount of Depreciation to be written off during its useful life | ..... |

For example, a machine was bought for Rs. 1,00,000 and a sum of Rs. 24,000 was spent towards its transportation and erection charges. It was estimated that the machine has a useful life of 10 years and that the residual value expected to realise at the end of its useful life is Rs. 14,000. The total amount of depreciation to be written off during the economic life of an asset can be calculated as shown below:

| | |
|---|----------|
| | Rs. |
| Original cost of the asset | 1,00,000 |
| Add Transportation and erection charges | 24,000 |
| | 1,24,000 |
| Less Estimated residual value | 14,000 |
| Total amount of depreciation to be written off during its useful life | 1,10,000 |

After determining the total amount of depreciation to be written off during the life time of an asset the next step is to decide the amount of depreciation to be charged every year. In the above situation the annual amount of depreciation to be written off may be considered as 1/10 of the total amount of depreciation because its estimated life is 10 years.

However, there are various methods of calculating the amount of depreciation to be charged from year to year.

8.7 METHODS OF RECORDING DEPRECIATION

There are essentially two methods of recording depreciation in the books of account:

(1) when Provision for Depreciation Account is maintained, and (2) when Provision for Depreciation Account is not maintained. Under the first method, the amount of depreciation is credited to the 'Provision for Depreciation Account' every year and the concerned asset account continues to appear at its original cost. Of course, while preparing the Balance Sheet, the accumulated balance of the Provision for Depreciation Account is shown by way of deduction from the cost of the asset. Under the second method, no Provision for Depreciation Account is opened. The amount of depreciation is directly credited to the concerned asset account every year. The asset account would thus appear in books at the depreciated value (written down value). Of course, it will be shown in the Balance Sheet giving the details of the opening balance, purchase and sale of the asset, and the depreciation provided during the year.

The following are the journal entries passed for the related transactions under the two methods.

1. When Provision for Depreciation Account is maintained

a) For charging depreciation:

| | |
|---------------------------------------|-----|
| Depreciation Account | Dr. |
| To Provision for Depreciation Account | |
| (Being depreciation provided) | |

b) For transferring depreciation to Profit and Loss Account:

| | |
|----------------------------------|-----|
| Profit and Loss Account | Dr. |
| To Depreciation Account | |
| (Being transfer of depreciation) | |

c) When the asset is sold:

- i) Bank Account Dr.
 To Asset Account
 (Being the sale proceeds)
- ii) Provision for Depreciation Account Dr.
 To Asset Account
 (Being transfer of provision for depreciation on the asset sold)
- iii) Asset Account Dr.
 To Profit and Loss Account
 (Being transfer of profit on sale of the asset)
 or
 Profit and Loss Account Dr.
 To Asset Account
 (Being transfer of loss on sale of the asset)

2. When Provision for Depreciation Account is not maintained**a) For charging depreciation:**

Depreciation Account Dr.
 To Asset Account
 (Being depreciation provided)

b) For transferring depreciation to Profit and Loss Account

Profit and Loss Account Dr.
 To Depreciation Account
 (Being transfer of depreciation)

c) When the asset is sold:

- i) Bank Account Dr.
 To Asset Account
 (Being sale proceeds)
- ii) Asset Account Dr.
 To Profit and Loss Account
 (Being transfer of profit on sale of asset)
 or
 Profit and Loss Account Dr.
 To Asset Account
 (Being transfer of loss on sale of the asset)

A firm can adopt any method for recording depreciation. But in practice, most of the firms follow the second method under which provision for Depreciation Account is not opened and all entries are made directly in the concerned asset account. Hence, we shall follow this method for the treatment of depreciation.

8.8 METHODS FOR PROVIDING DEPRECIATION

As stated earlier there are various methods of calculating the amount of depreciation to be charged from year to year. Different methods are adopted to suit the nature of

each asset. It is also possible that different concerns may follow different methods for depreciating the same asset. The following are the principal methods for providing depreciation.

1. Fixed Instalment Method
2. Diminishing Balance Method
3. Annuity Method
4. Depreciation Fund Method
5. Insurance Policy Method
6. Revaluation Method
7. Depletion Method
8. Machine Hour Rate Method

Of the above eight methods used for providing depreciation, the first two viz., Fixed Instalment Method and Diminishing Balance Method are the most commonly used methods. These are taken up in this unit and the remaining method shall be discussed in Unit 21.

8.8.1 Fixed Instalment Method

This method is also called ‘equal instalment method’ or ‘straight line method’. Under this method, a fixed and equal amount is charged as depreciation every year during the life time of an asset. When this amount of depreciation is presented on a graph paper it would show a straight line parallel to the X-axis, and hence the alternative name ‘straight line method’. This method writes off a fixed percentage of the original cost of the asset every year so that the asset is reduced to zero or its salvage value at the end of its working life. The annual amount of depreciation to be charged under this method can be calculated with the help of the following formula:

$$\text{Annual Depreciation} = \frac{\text{Original Cost} - \text{Scrap Value}}{\text{Life of the Asset in number of years}}$$

or $D = \frac{C-S}{N}$

Look at illustration 1 and see how the amount of annual depreciation has been calculated and the concerned asset account prepared from year to year.

Illustration 1

Ravikiran & Sons purchased machinery on January 1, 2015 for Rs. 22,000 and spent Rs. 3,000 on its erection. The asset is expected to last for four years after which its break up value is estimated to Rs. 5,000. Find out the amount of depreciation to be charged every year and show how the Machinery Account would appear for four years assuming that the machine is sold for Rs. 1,000 at the end. Also show how the balance of Machinery Account would appear in the Balance Sheet.

Solution:

The annual depreciation is calculated as follows :

$$D = \frac{C-S}{N}$$

$$= \frac{(22,000 + 3,000 - 5,000)}{4}$$

$$= \frac{20,000}{4}$$

$$= \text{Rs. } 5,300$$

Machinery Account

| Dr. | | | | Cr. | |
|---|--------------------------------|---------------|---------|---------------------|---------------|
| 2015 | | 2015 | | | |
| | | Rs. | | | Rs. |
| Jan. 1 | To Bank A/c | 22,000 | Dec. 31 | By Depreciation A/c | 5,000 |
| Jan. 1 | To Cash A/c (erection charges) | 3,000 | " 31 | By Balance c/d | 20,000 |
| | | <u>25,000</u> | | | <u>25,000</u> |
| 2016 | | 2016 | | | |
| Jan. 1 | To Balance b/d | 20,000 | Dec. 31 | By Depreciation A/c | 5,000 |
| | | | " 31 | By Balance c/d | 15,000 |
| | | <u>20,000</u> | | | <u>20,000</u> |
| 2017 | | 2017 | | | |
| Jan. 1 | To Balance b/d | 15,000 | Dec. 31 | By Depreciation A/c | 5,000 |
| | | | " 31 | By Balance c/d | 10,000 |
| | | <u>15,000</u> | | | <u>15,000</u> |
| 2018 | | 2018 | | | |
| Jan. 1 | To Balance b/d | 10,000 | Dec. 31 | By Depreciation A/c | 5,000 |
| | | | " 31 | By Bank A/c | 1,000 |
| | | | | By Balance c/d | 4,000 |
| | | <u>10,000</u> | | | <u>10,000</u> |
| Balance Sheet as on December, 31, 2015 | | | | | |
| | | | | | Rs. |

| | | |
|------------------------|---------------|--------|
| Machinery | 22,000 | |
| Add : Erection charges | 3,000 | |
| | <u>25,000</u> | |
| Less : Depreciation | <u>5,000</u> | 20,000 |

Balance Sheet as on December, 31, 2016

| | | |
|---------------------|--------------|--------|
| Machinery | 20,000 | |
| Less : Depreciation | <u>5,000</u> | |
| | | 15,000 |

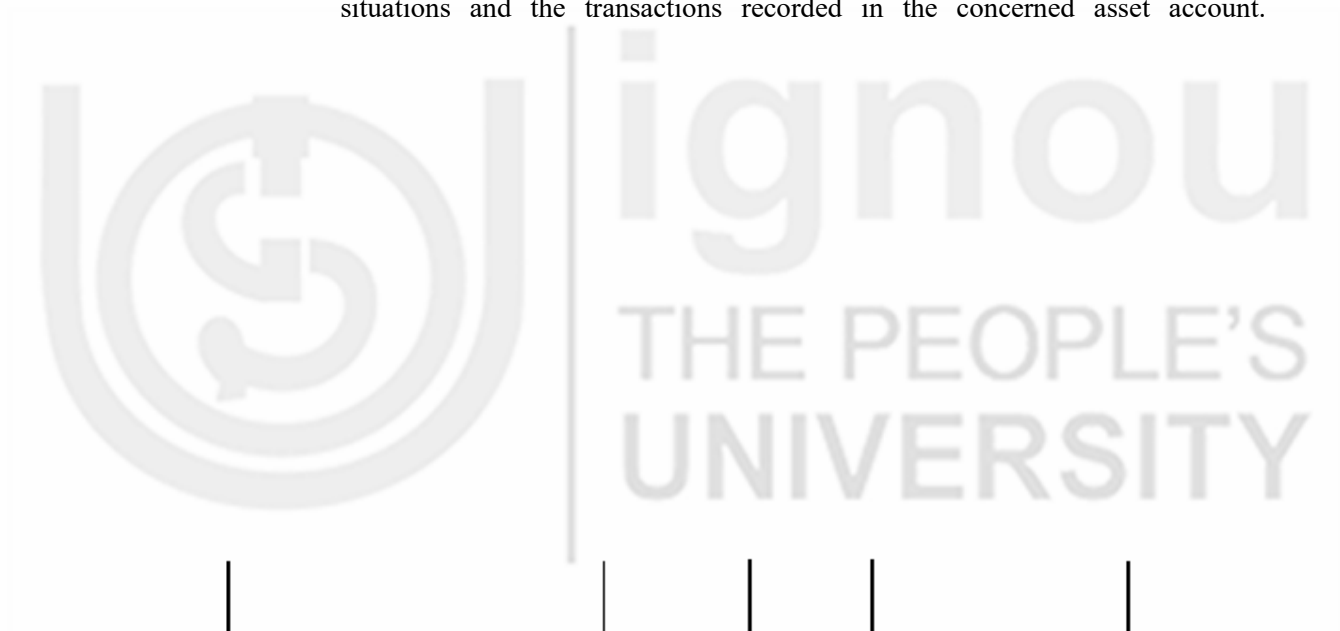
Balance Sheet as on December, 31,2017

| | | | |
|--|---------------------|--------|--------|
| | Machinery | 15,000 | |
| | Less : Depreciation | 5,000 | |
| | | 10,000 | 10,000 |

Balance Sheet as on December, 31,2018

| | | | |
|--|----------------------|--------|--|
| | Machinery | 10,000 | |
| | Less : Depreciation | 5,000 | |
| | | 5,000 | |
| | Less : Sale proceeds | 1,000 | |
| | | 4,000 | |
| | Less : Write off | 4,000 | |

In practice, the purchase and sale of an asset, is a continuous exercise. Hence, you should know how the calculation of depreciation will be made in such situations and the transactions recorded in the concerned asset account.



| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|

Advantages

1. It is easily understandable and is simple to apply.
2. Amount of depreciation does not vary from year to year.
3. Under this method the book value of asset is reduced either to zero or scrap value as the case may be.
4. In this method depreciation charge spreads equally over the entire period of its anticipated working life. Therefore, it is considered particularly suitable for those assets which get depreciated more on account of lapse of time such as lease-holds, patents etc.

Disadvantages

1. It does not reflect the correct charge on account of depreciation when the effective utilisation of the asset varies from year to year.
2. It does not recognise the reality that as an asset becomes older, the amount spent for repairs and renewals goes on increasing. It is common knowledge that when the asset is brand new, repair bill would be either nil or very small. But, as the machine is progressively subjected to wear and tear, the repairs bill would increase considerably. Thus the combined charge on account of depreciation and repairs will not be uniform throughout the life of the asset. The increasing repairs bill unjustifiably burden the later years of asset life with heavier combined charges.
3. It does not take into account the loss of interest on the money invested in the asset. Certain other methods (annuity method) while calculating depreciation also take interest aspect into account.

8.8.2 Diminishing Balance Method

Under this method, though the rate of depreciation is fixed, it is calculated on the written down value of the asset. Consequently the amount of depreciation to be

Final Accounts

charged goes on reducing from year to year. For example, a machine was purchased on January 1, 2016 for Rs. 10,000. It is to be depreciated at 15% per annum under the diminishing balance method. In this case, the depreciation for 2016 would be Rs. 1,500 (15% of 10,000), for 2017 it would be Rs. 1,275 (15% of 8,500), and for 2018 it would work out as Rs. 1,084 (15% of 7,225). Thus you will notice that the annual depreciation goes on reducing. Hence, it is also known as 'reducing instalment method'. This method is considered better than the fixed instalment method because with reducing instalments of depreciation the combined effect of repairs and depreciation will be more or less uniform throughout the life of the asset.

Look at illustration and see how the amount of depreciation is computed every year and recorded in the concerned asset account.

Illustration

Kishore Ltd. purchased a tractor costing Rs. 1,00,000 on January 1, 2014. The rate of depreciation to be charged was fixed at 20% per annum. Write up Tractor Account for five years ending December 31, 2018, under diminishing balance method.

Tractor Account

| Dr. | | | Cr. | | |
|--------|-------------|----------|---------|---------------------|----------|
| 2014 | | | 2014 | | |
| | | Rs. | | | Rs. |
| Jan. 1 | To Bank A/c | 1,00,000 | Dec. 31 | By Depreciation A/c | 20,000 |
| | | | Dec. 31 | By Balance c/d | 80,000 |
| | | 1,00,000 | | | 1,00,000 |
| 2015 | | | 2015 | | |
| Jan. 1 | To Bank A/c | 80,000 | Dec. 31 | By Depreciation A/c | 16,000 |
| | | | Dec. 31 | By Balance c/d | 64,000 |
| | | 80,000 | | | 80,000 |
| 2016 | | | 2016 | | |
| Jan. 1 | To Bank A/c | 64,000 | Dec. 31 | By Depreciation A/c | 12,800 |
| | | | Dec. 31 | By Balance c/d | 51,200 |
| | | 64,000 | | | 64,000 |
| 2017 | | | 2017 | | |
| Jan. 1 | To Bank A/c | 51,200 | Dec. 31 | By Depreciation A/c | 10,240 |
| | | | Dec. 31 | By Balance c/d | 40,960 |
| | | 51,200 | | | 51,200 |
| 2018 | | | 2018 | | |
| Jan. 1 | To Bank A/c | 40,960 | Dec. 31 | By Depreciation A/c | 8,192 |
| | | | Dec. 31 | By Balance c/d | 37,768 |
| | | 40,960 | | | 40,960 |

Now look at illustration. It deals with the situation when additions and disposals are made during the course of the year and a part of the asset is replaced.

Illustration

Harinath purchased on January 1, 2016, a plant for Rs. 50,000. On July 1, 2016 an additional plant worth Rs. 20,000 was purchased and on July 1, 2017, the plant purchased on January 1, 2016 having become obsolete is sold off for Rs. 20,000. On July 1, 2018, a new plant was purchased for Rs. 60,000 and the plant purchased on July 1, 2016 was sold for Rs. 15,000. Depreciation is to be provided at 10% p.a. on the written down value every year. Show the Plant Account.

Plant Account

| Dr. | | | Cr. | | |
|--------|--------------------------------|---------------|---------|--------------------------------|---------------|
| 2016 | | Rs. | 2016 | | Rs. |
| Jan. 1 | To Bank A/c | 50,000 | Dec. 31 | By Depreciation A/c | 6,000 |
| Jan. 1 | To Bank A/c (erection charges) | 20,000 | “ 31 | By Balance c/d | 64,000 |
| | | <u>70,000</u> | | | <u>70,000</u> |
| 2017 | | | 2017 | | |
| Jan. 1 | To Balance b/d | 64,000 | July, 1 | By Bank A/c | 20,000 |
| | | | Dec. 31 | By P & L A/c (loss on sale) | 22,750 |
| | | | Dec. 31 | By Depreciation A/c | 4,150 |
| | | | Dec. 31 | By Balance c/d | 17,100 |
| | | <u>64,000</u> | | | <u>64,000</u> |
| 2018 | | | 2018 | | |
| Jan. 1 | To Balance b/d | 17,100 | July, 1 | By Bank A/c | 15,000 |
| Jan. 1 | To Bank A/c | 60,000 | Dec. 31 | By P & L A/c (loss on sale) | 1,245 |
| | | | Dec. 31 | By Depreciation A/c | 3,855 |
| | | | Dec. 31 | By Balance c/d | 57,000 |
| | | <u>77,100</u> | | | <u>77,100</u> |

Working Notes:**1. Depreciation for 2016**

| | |
|----------------------------------|--------------|
| | Rs. |
| 10% on Rs. 50,000 for one year | 5,000 |
| 10% on Rs. 20,000 for six months | 1,000 |
| | <u>6,000</u> |

2. Depreciation for 2017

| | |
|--|--------------|
| 10% on Rs. 45,000 for six months (upto June 30, 2017) | 2,250 |
| 10% on Rs. 19,000 for one year | 1,900 |
| | <u>4,150</u> |

3. Loss on plant sold on July 1, 2017

| | |
|------------------------------|--------|
| Depreciated value as on 2017 | |
| 50,000 — 5,000 — 2,250 | 42,750 |
| Less : Sale proceeds | 20,000 |
| | <hr/> |
| Loss on sale | 22,750 |
| | <hr/> |

4. Depreciation for 2018

| | |
|----------------------------------|-------|
| 10% on Rs. 17,100 for six months | 855 |
| 10% on Rs. 60,000 for six months | 3,000 |
| | <hr/> |
| | 3,855 |
| | <hr/> |

5. Loss on plant sold on July 1, 2018

| | |
|----------------------------------|--------|
| Depreciated value as on 1.7.2018 | |
| 20,000 — 1,000 — 1,900 — 855 | 16,245 |
| Less: Sale proceeds | 15,000 |
| | <hr/> |
| Loss on sale | 1,245 |
| | <hr/> |

Advantages

This method is also simple to understand and easy to follow, though calculation of depreciation is slightly complicated. It ensures a fairly even charge to Profit and Loss Account on account of both depreciation and repairs. This is possible because the amount of depreciation decreases year after year while the charge for repairs goes n increasing year after year.

Disadvantages

One of the important limitations of this method is that the value of an asset cannot be brought down to zero. Hence, even after the asset is put out of use it may have certain book value. This method also does not take into account the loss of interest on the money invested in the asset. The determination of a suitable rate of depreciation is also difficult under this method. The formula generally used for this purpose is as follow:

$$\text{Rate of Depreciation} = \frac{\text{Original Cost} - \text{Scrap Value}}{n \times \text{Original Cost}}$$

This looks quite complicated as compared to the fixed installment method. This method is considered suitable for assets like plant and machinery where the repairs are insignificant in earlier years but increase considerably in later years. It is popularly known as ‘written down value method’ because the depreciation is computed on the written down value every year. There are however, other methods of computing depreciation under the diminishing balance method such as ‘sum of year digits method’ and ‘double declining balance method’. These are also called accelerated depreciation method, because under all these methods the amount of depreciation charged in earlier years is more compared to that of the later years.

8.8.3 Difference between Fixed Instalment Method and Diminishing Balance Method

The difference between the fixed instalment method and the diminishing balance method can be summarised as follows:

| Fixed Instalment Method | Diminishing Balance Method |
|--|---|
| 1. Depreciation is calculated on the original cost | Depreciation is calculated written down value |
| 2. Depreciation instalment is the same every year. | Depreciation instalment goes on reducing every year. |
| 3. The balance in the asset account will reduce to zero at the expiry of the working life of the reduce to zero. asset. | The balance in the asset account will never reduce to zero. |
| 4. The combined cost on account of depreciation and repairs is low during the initial years and high during later years. | The combined cost on account of depreciation and repairs is more or less equal throughout. |
| 5. Calculation of the rate of depreciation is easy. | Calculation of the rate of depreciation is difficult |
| 6. It is suitable for assets which get depreciated more on account of the expiry of time | It is suitable for assets which require heavy repairs in later years of their working life. |

Check Your Progress B

1. List the factors influencing the amount of depreciation.

2. Name various methods of computing depreciation.

3. State whether the following statements are True or False.
 - i) Depreciation is a temporary change in the value of an asset.
 - ii) While calculating depreciation, the scrap value (salvage value) must be taken into account.
 - iii) Under fixed instalment method of providing depreciation the combined effect of repairs and depreciation is uniform over the year

- iv) Under the diminishing balance method it would be possible to reduce the value of an asset to zero.
- v) The interest involved in the investment on assets purchased is ignored under both the fixed instalment and the diminishing balance methods.
- vi) When a Provision for Depreciation Account is maintained, the asset is shown at the original cost in the Balance Sheet

8.8.4 Change of Method

Sometimes a firm may decide to change the method of depreciation it had adopted i.e., it may change the method of depreciation from fixed installment method to reducing installment method or vice versa. If it decides to implement the change with prospective effect, there is no problem because no adjustment is necessary in respect of depreciation charged in earlier years. All that is necessary is to charge depreciation from that year onwards according to the new method decided.

However, when it is decided to change the method with retrospective effect i.e., with effect from a prior date (usually from the date of acquisition of an asset) it would be necessary to adjust the depreciation charged till date. Suppose a firm was depreciating its machinery under the fixed instalment method during the past three years. It has now decided to change the method to written down value method with retrospective effect. In such a case it would be necessary to take the following steps:

1. Calculate the amount of depreciation already charged till the date of change according to old method.
2. Calculate the amount of depreciation that would have been charged under the new method now proposed to be adopted.
3. If the amount of depreciation under the new method is more than what was charged under the old method, such difference should be credited to the asset account in current year and debited to the Profit and Loss Account.
4. If, on the other hand, the amount of depreciation under the new method is less than what was charged under the old method such a difference should be debited to the asset account in current year and credited to the Profit and Loss Account.
5. As the difference in depreciation amount is adjusted to the current value of asset in the asset account, the asset account will appear at its new value, from the date of change and depreciation will be charged according to the new method in subsequent years.

Look at illustration . It will help you to clearly understand the procedure to be followed when a change of method is desired with retrospective effect.

Illustration

Sharat & Sons purchased a car for Rs. 1,00,000 on January 1, 2015. The car was depreciated at 10% under the written down value method. On January 1, 2018 they wanted to change the method of depreciation from reducing instalment method to straight line method without & changing the rate. Show the asset account from 2015 to 2018.

Solution:

Depreciation

Car Account

| Dr. | | | | Cr. | |
|--------|----------------|-----------------|---------|----------------------|-----------------|
| 2015 | | 2015 | | 2015 | |
| | | Rs. | | | Rs. |
| Jan. 1 | To Bank A/c | 1,00,000 | Dec. 31 | By Depreciation A/c | 10,000 |
| | | | Dec. 31 | By Balance c/d | 90,000 |
| | | <u>1,00,000</u> | | | <u>1,00,000</u> |
| 2016 | | 2016 | | 2016 | |
| Jan. 1 | To Bank A/c | 90,000 | Dec. 31 | By Depreciation A/c | 9,000 |
| | | | Dec. 31 | By Balance c/d | 81,000 |
| | | <u>90,000</u> | | | <u>90,000</u> |
| 2017 | | 2017 | | 2017 | |
| Jan. 1 | To Bank A/c | 81,000 | Dec. 31 | By Depreciation A/c | 8,100 |
| | | | Dec. 31 | By Balance c/d | 72,900 |
| | | <u>81,000</u> | | | <u>64,000</u> |
| 2018 | | 2018 | | 2018 | |
| Jan. 1 | To Bank A/c | 72,900 | Dec. 31 | By P & L A/c (diff.) | 2,900 |
| | | | Dec. 31 | By Depreciation A/c | 10,000 |
| | | | Dec. 31 | By Balance c/d | 60,000 |
| | | <u>72,900</u> | | | <u>72,900</u> |
| 2019 | | 2019 | | 2019 | |
| Jan. 1 | To Balance b/d | 60,000 | | | |

Notes: 1. If the firm had followed the fixed instalment method right from the beginning (1.1.2015), the value of car as on 1.1.2018 would be Rs. 70,000 worked out as follows:

| | Rs. |
|--|---------------|
| Original cost | 1,00,000 |
| Less: Depreciation for years at Rs. 10,000 p.a. (10% of 1,00,000) | 30,000 |
| Value of Car as on 1.1.2018 | <u>70,000</u> |

But from the Car Account you find that the opening balance on 1.1.2018 is Rs. 72,900. This means that under the written down value method the amount of depreciation charged during the three years was Rs. 27,100 (1,00,000 — 72,900) as against Rs. 30,000 required under the fixed instalment method. Hence. the difference between the two amounts i.e., Rs. 2,900 (30,000 — 27,100) must be charged as additional depreciation so as to adjust the asset account.

- 2 The depreciation to be charged for the year 2018 would be Rs. 10,000 i.e., 10% on Rs. 1,00,000 as required under the fixed instalment method. From this year onwards Rs. 10,000 will be charged as depreciation every year.

8.9 LET US SUM UP

Depreciation is a permanent and gradual diminution in the value of an asset caused by usage and effusion of time.

It represents the expired cost of a fixed asset which must be charged to the Profit and Loss Account and deducted from the value of the asset concerned. Unless it is so treated, the Profit and Loss Account will not show true profit or loss for the year and the Balance Sheet will not reflect the correct financial position. The amount of depreciation to be charged is determined by taking into account: (i) the cost of asset, (ii) the estimated useful life, and (iii) the estimated salvage value.

There are essentially two methods of recording the depreciation in books of account (i) By maintaining a Provision for Depreciation Account, and (ii) Without maintaining a Provision for Depreciation Account.

When a provision for Depreciation Account is maintained the depreciation is credited to this account from year to year. Its accumulated balance is transferred to the asset account only at the end of the life of the asset or when the same is sold. But when provision for Depreciation Account is not maintained, the depreciation is directly credited to the asset account every year. Of course, in the Balance Sheet the asset will always be shown at the depreciated value.

There are various methods of calculating the amount of depreciation. Of these, the two most common methods are: (i) fixed instalment method, and (ii) diminishing balance method. Under the fixed instalment method an equal amount is charged as depreciation year after year while under the diminishing balance method the amount of depreciation goes on reducing year after year. Both have their merits and demerits. But, the diminishing balance method is considered better because the combined cost on account of depreciation and repairs is uniformly distributed over the working life of an asset. Although the amount of depreciation under these two methods differ, the method of recording it in the books of account is the same.

Sometimes, a concern may decide to change the method of depreciation. If the change is to take effect from current years, it does not involve much problem. But if it is with retrospective effect, it would require the calculation of depreciation according to both the methods and the difference will have to be adjusted before the depreciation can be charged according to changed method.

8.10 KEY WORDS

Amortisation: Writing off the expired cost of an intangible asset.

Depreciation: Permanent and gradual diminution in value of a fixed asset.

Obsolescence: Becoming out of date, a cause for depreciation in value of asset.

Residual Value: Expected realisable amount, when the asset is sold out at the end of its useful life.

Salvage Value: Same as residual or scrap value.

Depreciation

Written Down Value: Book value of an asset after deducting depreciation from the original cost. It is also called depreciated value.

8.11 SOME USEFUL BOOKS

Gupta R.L and M. Radhaswamy, 2018. Advanced Accountancy, Volume 1, Sultan Chand & Sons, New Delhi.

Maheshwari S.N., 2018. Introduction to Accounting, Vikas Publishing House: New Delhi.

Path, V.A. and J. S. Korlahalli, 2018. Principles and Practice of Accounting, R. Chand & Co., New Delhi.

Shukla, M.C. and T.S. Grewal, 2018. Advanced Accounts, S. Chand & Co., New Delhi.

William Pickles, 1992. Accountancy, E . L. B .S. and Pitman, London.

8.12 ANSWERS TO CHECK YOUR PROGRESS

A 3. i) False ii) True iii) True iv) False v) False vi) False vii) False viii) True

B 3. i) False ii) True iii) False iv) False v) True vi) False.

8.13 TERMINAL QUESTIONS/EXERCISES

Questions

1. Define depreciation. Distinguish it from depletion, amortisation and obsolescence.
2. Explain the need and significance of depreciation. What factors should be considered for determining the amount of depreciation?
3. Enumerate the methods of calculating depreciation. Discuss the advantages and disadvantages of fixed instalment method.
4. What are the merits and demerits of written down value method? Distinguish it from the straight line method.
5. Describe the methods of recording depreciation in books of account. How is the balance of the Provisions for Depreciation Account shown in the Balance Sheet?

Exercises

- 1, A cold storage plant was purchased on July 1, 2016 for Rs. 1,00,000. Show the V plant Account under (a) the Straight Line Method and (b) the..Written Down Value Method. Rate of depreciation charged is 20%. What is the balance of plant at the end of the third year?

(Answer : Balance at the end of the third year (a) under Straight Line Method Rs. 40,000; and (b) under Written Down Value Method: Rs. 51,200).

2. Suresh purchased plant and machinery for Rs. 50,000 on July 1, 2014. The asset was to be depreciated at the rate of 10 per cent per annum on written down value basis. The machinery was sold on January 1, 2018 for Rs. 32,000. Write up Machinery Account assuming accounting year to end on December 31 every year.

(Answer: Loss on sale Rs. 2,627)

3. On 1-8-2016, a machine was purchased by a manufacturing concern for Rs. 60,000 and it spent for its overhaul and installation Rs. 10,000. Its effective life was estimated to be ten years and residual value at the end of its life time was estimated to be Rs. 10,000. Show Machine Account for the first three years assuming that the concern decided to depreciate it under the fixed instalment method. The accounting year ends on December 31.

(Answer: Balance of Machine Accounts as on January 1, 2019: Rs. 55,000)

4. Ashok Ltd has bought machinery for Rs. 1,00,000 including a boiler worth Rs. 10,000. The Machinery Account has been credited for depreciation on the written down value method for the past four years at the rate of 10%. During the fifth year the boiler became useless on account of damage to some of its vital parts; the damaged boiler is sold for Rs. 5,000. Write up the Machinery Account.

(Answer: Loss on sale of machinery Rs. 1,561; Balance of Machinery Account as at the end of fifth year Rs. 59,049.)

5. Navrang & Co., whose accounting year is the calendar year, purchased machinery costing Rs. 60,000 on July 1, 2016. It purchased further machinery on September 1, 2016 costing Rs. 30,000. On January 1, 2018 one-third of the Machinery installed on June 1, 2016 became obsolete and was sold for Rs. 5,000. Depreciation is being written off on fixed instalment system, at 10% per annum. Prepare the machinery account as would appear in the ledger of the company for the years 2016, 2017 and 2018.

(Answer: Balance of Machinery Account as on January 1, 2019 : Rs. 53,000).

6. On October 1, 2016 Raghavan & Sons purchased machinery for Rs. 30,000 and spent Rs. 3,000 on installing it. On January 1, 2017, the firm purchased another machinery for Rs. 20,000. On June 30, 2018 the machinery purchased on January 1, 2017 was sold for Rs. 16,000 and on the same date a fresh plant was installed at a cost of Rs. 25,000.

The company writes off 10% depreciation on the diminishing balance method. The accounts are closed every year on December 31. Show the Machinery account for the years 2016, 2017 and 2018.

(Answer : Balance of Machinery Account as on January 1, 2019: Rs. 39,950)

7. On July 1, 2015, a company purchased a plant for Rs. 2,00,000. Depreciation was provided at 10% per annum on straight line method on December 31, every year. With effect from January 1, 2017 the company decided to change the method of depreciation to diminishing balance method @ 15% per annum with retrospective effect. On July 1, 2018, the plant was sold for Rs. 1,20,000. Prepare Plant Account from 2015 to 2018).

(Answer : Loss on sale of plant: Rs. 3,637.

8. Work out problem No. 7 assuming that (a) the asset was originally depreciated on written down value method at 20% and that (b) now it is desired to change the method to fixed instalment method with retrospective effect, rate of depreciation remaining same.

(**Answer:** Profit on sale of plant Rs. 40,000).

Note : These questions will help you to understand the unit better. Try to write answers for them. But, do not submit your answers to the University for assessment. These are for your own practice only.



ignou
THE PEOPLE'S
UNIVERSITY

UNIT 9 FINAL ACCOUNTS-I

Structure

- 9.0 Objectives
- 9.1 Introduction
- 9.2 Final Accounts and Trial Balance
- 9.3 Trading and Profit and Loss Account
 - 9.3.1 Trading Account
 - 9.3.2 Profit and Loss Account
 - 9.3.3 Closing Entries
- 9.4 Balance Sheet
- 9.5 Vertical Presentation of Final Accounts
- 9.6 Manufacturing Account
- 9.7 Let Us Sum Up
- 9.8 Key Words
- 9.9 Some Useful Books
- 9.10 Answers to Check Your Progress
- 9.11 Terminal Questions/Exercises

9.0 OBJECTIVES

After studying this unit, you will be able to:

- explain the purpose of preparing final accounts;
- prepare a trial balance from a given list of balances;
- prepare trading and profit and loss account;
- prepare balance sheet;
- prepare manufacturing account and calculate cost of goods produced; and
- present the final accounts in vertical form.

9.1 INTRODUCTION

You know that the final accounts are primarily prepared for ascertaining the operational result and the financial position of the business. They consist of (1) Profit and Loss Account, and (ii) Balance Sheet. The Profit and Loss Account reveals the profit earned or loss incurred (operational result) during the accounting year and the Balance Sheet indicates the financial position as at the end of the year. In this unit, you will learn about the basic framework of final accounts including their presentation in vertical form.

9.2 FINAL ACCOUNTS AND TRIAL BALANCE

You know final accounts are prepared with the help of a Trial Balance which shows all the ledger balances as at the end of an accounting period. Generally, when you are asked to prepare final accounts, you are given a properly prepared Trial Balance and you have no difficulty in identifying the items of incomes, expenses, assets, and liabilities. But, sometimes you may not be given a proper Trial Balance. You may simply be asked to prepare the final accounts from the list of closing balances extracted from the books of some firm. In such a situation, it will be helpful if you first prepare the Trial Balance and then the final accounts. Hence it is important that you should know how to prepare the Trial Balance from a given list of balances.

Normally when a Trial Balance is to be prepared, you have full details of ledger accounts with you. You can easily ascertain whether a particular account has a debit balance or a credit balance, and prepare the Trial Balance without any difficulty. The problem arises when you are given a list but it is not indicated whether the account has a debit balance or a credit balance. Under such a situation you will have to determine the nature of each balance before you prepare the Trial Balance. In this exercise, your knowledge of rules of debit and credit will help you. For example you know that in case of nominal accounts all expenses and losses are debited and all incomes and gains are credited. Similarly, you know the rules for real and personal accounts according to which the account of assets like cash, machinery debtors, etc. will show debit balances while accounts like capital, creditors, etc. will show credit balances. For convenience however, a few guidelines should help you. They are

- a) All accounts of expenses (including purchases) and losses will be debit balances.
- b) All accounts of Income (including sales) and gains will be credit balances.
- c) All accounts of assets will be debit balances.
- d) All accounts of liabilities will be credit balances.
- e) Capital Account will normally be a credit balance.
- f) Drawings Account will be a debit balance.

However, the problem may arise with regard to some items like rent, discount, commission and interest as they can be expenses as well as incomes. In such cases, the nature of the balance is usually indicated by mentioning (Dr.) or (Cr.) against each item, or the word 'received' or 'paid' is written after each item. This helps you to treat the item correctly. But, if there is only one item for which no such indication is given you can proceed with the preparation of Trial Balance and work out the totals of both the columns. You will find that the total of one column will be less than the other. This means that the unidentified balance pertains to the column which is short. For example, there is an item of commission of Rs. 300 appearing in the list of balances and it is not indicated whether it is paid or received. When you prepare the Trial Balance you will find that the debit total is short by Rs. 300. This would mean that the Commission Account has a debit balance. Now if you show it as such in the Trial Balance, it will tally.

Look at illustration 1 and see how the Trial Balance has been prepared from a given list of balances where the nature of each balance has not been indicated.

Illustration 1

Prepare a Trial Balance from the following balances extracted from the books of Sudhakar on March 31, 2018.

| | Rs. | | Rs. |
|-------------------|----------|-------------------------|----------|
| Opening Stock | 40,000 | Drawings | 10,000 |
| Purchases | 4,10,000 | Wages | 7,300 |
| Sales | 4,29,000 | Salaries | 11,000 |
| Purchases Returns | 1,250 | Outstanding Expenses | 1,000 |
| Sales Returns | 2,500 | Prepaid Expenses | 750 |
| Carriage Inwards | 1,500 | Postage | 900 |
| Carriage Outwards | 2,500 | Discount Received | 375 |
| Bank Overdraft | 21,000 | Discount Allowed | 1,000 |
| Cash | 4,000 | Bad Debts | 750 |
| Capital | 1,27,750 | Sundry Debtors | 1,00,000 |
| Sundry Creditors | 37,500 | Interest | 3,500 |
| Loans | 41,375 | Interest Received | 300 |
| Investments | 10,000 | Provision for Bad Debts | 1,750 |
| Accrued Income | 600 | Furniture & Fixture | 7,500 |
| Machinery | 47,500 | | |

Solution:**Trial Balance to Sudhakar as on March 31, 2018**

| Particulars | Dr. | Cr. |
|-------------------|----------|----------|
| | Balances | Balances |
| | Rs. | Rs. |
| Opening Stock | 40,000 | |
| Purchases | 4,10,000 | |
| Sales | | 4,29,000 |
| Purchases Returns | | 1,250 |
| Sales Returns | 2,500 | |
| Carriage Inwards | 1,500 | |
| Carriage Outwards | 2,500 | |
| Bank Overdraft | | 21,000 |
| Cash | 4,000 | |
| Capital | | 1,27,750 |
| Sundry Creditors | | 37,500 |
| Loans | | 41,375 |
| Investments | 10,000 | |
| Accrued Income | 600 | |
| Machinery | 47,500 | |
| Drawings | 10,000 | |
| Wages | 7,300 | |

| | | |
|-------------------------|-----------------|-----------------|
| Salaries | 11,000 | |
| Outstanding Expenses | | 1,000 |
| Prepaid Expenses | 750 | |
| Postage | 900 | |
| Discount Received | | 375 |
| Discount Allowed | 1,000 | |
| Bad Debts | 750 | |
| Sundry Debtors | 1,00,000 | |
| Interest | 3,500 | |
| Interest Received | | 300 |
| Provision for Bad Debts | | 1,750 |
| Furniture & Fixture | 7,500 | |
| Total | 6,61,300 | 6,61,300 |

In illustration 1, the Trial Balance has tallied i.e, the total of debit balances column is equal to the total of credit balances column. This would mean that each balance has been entered in the appropriate amount column of the Trial Balance. This is not always true. It is quite possible that even when the Trial Balance has tallied, some balances may not have been entered in the correct columns. Look at illustration 2. You will find that the Trial Balance has tallied (the totals of both Dr. balances and Cr. balances is the same i.e., Rs. 91,650 but there are a number of items which have been shown in the wrong columns. For example, bank overdraft which should have been shown in the Cr. balances column has been included in the Dr. balances column and Furniture which should have appeared in Dr..balances column has been shown in the Cr. balances column. So, the Trial Balance has been rewritten and all items shown correctly. Such situation arises on account of the compensating effect of the errors which is very rare.

Illustration

An inexperienced accountant provides you with the following Trial Balance. In case you find it to be incorrect, I prepare it again so as to remove its defects.

Trial Balance as on June 30, 2018

| Name of Account | L.F. | Dr. Balances | Cr. Balances |
|------------------|------|-----------------|-----------------|
| Stock (Opening) | | Rs. | Rs. |
| Buildings Bills | | 10,500 | |
| Payable Bank | | 31,500 | |
| Overdraft | | 1,800 | |
| Capital | | 1,500 | |
| Furniture | | | 45,000 |
| Discount Allowed | | | 12,000 |
| Sales | | 90 | |
| Loan from Suresh | | 39,000 | |

Final Accounts

| | | | |
|-------------------------|--|---------------|---------------|
| Carriage Inwards | | 2,400 | |
| Bills Receivable | | 270 | 3,000 |
| Purchases | | | 24,000 |
| Salaries | | | 3,300 |
| Investments | | 3,000 | |
| Interest on Investments | | | 1,650 |
| Returns Inwards | | 900 | |
| Returns Outwards | | 300 | |
| Insurance Premium | | 360 | |
| Interest on Loan | | 30 | |
| Advertisement | | | 1,200 |
| Drawings | | | 1,500 |
| Total | | 91,650 | 91,650 |

Solution:**Revised Trial Balance as on June 30, 2018**

| Name of Account | L.F. | Dr. | Cr. |
|-------------------------|------|---------------|---------------|
| | | Balances | Balances |
| | | Rs. | Rs. |
| Stock (opening) | | 10,500 | |
| Buildings | | 31,500 | |
| Bills Payable | | | 1,800 |
| Bank Overdraft | | | 1,500 |
| Capital | | | 45,000 |
| Furniture | | 12,000 | |
| Discount Allowed | | 90 | |
| Sales | | | 39,000 |
| Loan from Suresh | | | 2,400 |
| Carriage Inwards | | 270 | |
| Bills Receivable | | 3,000 | |
| Purchases | | 24,000 | |
| Salaries | | 3,300 | |
| Investments | | 3,000 | |
| Interest on investments | | | 1,650 |
| Returns Inwards | | 900 | |
| Returns Outwards | | | 300 |
| Insurance Premium | | 360 | |
| Interest on Loan | | 30 | |
| Advertisement | | 1,200 | |
| Drawings | | 1,500 | |
| Total | | 91,650 | 91,650 |

- 1) Mention against each item whether it will generally show a debit balance or a credit balance.

| Items | Nature of Balance Debit or Credit |
|-------------------------------------|--------------------------------------|
| i) Sales Returns | |
| ii) Carriage Inwards | |
| iii) Carriage Outwards | |
| iv) Capital | |
| v) Loss by fire | |
| vi) Overdraft | |
| vii) Drawings | |
| viii) Returns Outwards | |
| ix) Bills Receivable | |
| x) Goodwill | |
| xi) Rent Paid | |
| xii) Commission Received in Advance | |

9.3 TRADING AND PROFIT AND LOSS ACCOUNT

You know the Profit and Loss Account is prepared for ascertaining the profit or loss of the business. This is worked out in two stages. In the first stage, we work out the gross profit or gross loss and in the second stage, the net profit or net loss. Hence, the profit and Loss Account is divided into two sections. The first section is called Trading Account. It reveals the gross profit or gross loss. The second section is called Profit and Loss Account which shows the net profit or net loss.

9.3.1 Trading Account

As stated above, the Trading Account is prepared for ascertaining the gross profit or gross loss. The gross profit is defined as the excess of sales revenue over cost of goods sold. This can be presented in the form of an equation as follows.

$$\text{Gross Profit} = \text{Net Sales} - \text{Cost of Goods sold}$$

- Where
- i) $\text{Net Sales} = \text{Total Sales} - \text{Sales Returns}$
 - ii) $\text{Cost of Goods Sold} = \text{Opening Stock} + \text{Net Purchases} + \text{Direct Expenses} - \text{Closing Stock}$

You know the terms ‘Opening Stock’ and ‘Closing Stock’ refer to the value of unsold goods as at the beginning of the year and at the end of the year respectively. Such stock may also include the semi-finished goods and raw materials. In order to arrive at the cost of goods sold, the opening stock is added to the net purchases while the closing stock is deducted. The term ‘Direct Expenses’ refer to those

expenses which are incurred on the goods purchased till they are brought to the place of business for sale These include expenses such as freight, insurance, import duty, dock dues, clearing charges, octroi duty, carriage, cartage, etc. The administrative expenses, selling and distribution expenses, interest paid, etc. are termed as indirect expenses and therefore, are excluded from the cost of goods sold.

Look at illustrations and study how Cost of Goods Sold and the Gross Profit are computed.

Illustration

The following figures have been extracted from the books of a firm. Calculate the Cost of Goods Sold.

| | |
|------------------------|-----------|
| | Rs. |
| Stock as on 1.1.2018 | 1,00,000 |
| Purchases for 2018 | 15,00,000 |
| Purchases Returns | 40,000 |
| Carriage Inwards | 20,000 |
| Octroi | 80,000 |
| Freight | 15,000 |
| Stock as on 31.12.2018 | 1,70,000 |

Solution:

| | |
|-------------------------------|-----------|
| Opening Stock | 1,00,000 |
| Add: Net Purchases | |
| (Purchases Rs. 15,00,000 | |
| Purchases Returns Rs. 40,000) | 14,60,000 |
| Carriage Inwards | 20,000 |
| Octroi | 80,000 |
| Freight | 15,000 |
| | 16,75,000 |
| Less: Closing Stock | 1,70,000 |
| Cost of Goods Sold | 15,05,000 |

Illustration

On January 1, 2018 a firm had stock of goods valued at Rs. 20,000. During the year the following transactions took place.

| | |
|-------------------|----------|
| | Rs. |
| Sales | 5,00,000 |
| Purchases | 3,00,000 |
| Carriage Inwards | 3,000 |
| Freight Inwards | 5,000 |
| Sales Returns | 10,000 |
| Clearing charges | 22,000 |
| Purchases Returns | 5,000 |

The closing stock of goods on December 31, 2018 is Rs. 40,000.

Solution:

| | | |
|--------------------------|-----------------|-----------------|
| | Rs. | Rs. |
| Sale | 5,00,000 | |
| Less: Sales Returns | <u>10,000</u> | |
| Net Sales | | 4,90,000 |
| Less: Cost of Goods Sold | | |
| Opening Stock | 20,000 | |
| Add: Purchases | <u>3,00,000</u> | |
| | 3,20,000 | |
| Less: Purchases Return | <u>5,000</u> | |
| | 3,15,000 | |
| Add: | | |
| Carnage Inwards | 3,000 | |
| Freight Inwards | 5,000 | |
| Clearing Charges | <u>22,000</u> | |
| | 3,45,000 | |
| Less: Closing Stock | <u>40,000</u> | |
| | | <u>3,05,000</u> |
| Gross Profit | | <u>1,85,000</u> |

Form of Trading Account : The Equation for Gross Profit is also known as Trading Account Equation. This equation forms the basis of preparing the Trading Account. The Trading Account, like any other account in the ledger, has two sides—debit and credit. The opening stock, purchases (less returns) and all direct expenses are shown on the debit side of the Trading Account while sales (less returns) and the closing stock on the credit side. The gross profit appears as the last item on the debit side which, in fact is the excess of the total of credit side over the total of debit side. If however, the total of the debit side exceeds the total of the credit side, it will be treated as gross loss. This is shown as the last item on the debit side of the Trading Account. The gross profit/gross loss thus worked out is transferred to the Profit and Loss Account. Look at the Figure 9.1 for the form of Trading Account.

Fig. 9.1
Form of Trading Account

Trading Account of
(Day, Month and Year)

| | | | | |
|--|---------------|---------------|---------------------|---------------|
| Dr. | | | | Cr. |
| Particulars | Amount | Amount | Particulars | Amount |
| | Rs. | Rs. | | Rs. |
| To Opening Stock |  | .... | By Sales | .... |
| To Purchases | .... |  | Less: Sales Returns | .... |
| Less Purchases Returns | .... | .... |  | .... |
| To Direct Expenses (specify individually) | .... | .... | By closing Stock | .... |
| To Gross Profit (Transferred to Profit and Loss Account) | .... | .... |  | .... |
| | | | | |

Final Accounts

Based on the data given in illustration 4, the Trading Account will be prepared as follows.

Trading Account of . . . for the year ending December 31, 2018

| Dr. | Cr. | | | | |
|--|----------|----------|------------------|----------|----------|
| Particulars | Amount | Amount | Particulars | Amount | Amount |
| Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| To Opening Stock | | 20,000 | By Sales | 5,00,000 | Rs. |
| To Purchases | 3,00,000 | | Less: Returns | 10,000 | 4,90,000 |
| Less: Returns | 5,000 | 2,95,000 | | | |
| To Carriage Inwards | | 3,000 | By Closing Stock | | 40,000 |
| To Freight | | 5,000 | | | |
| To Clearing Charges | | 22,000 | | | |
| To Gross Profit (Transferred to (P&LA/c)) | | 1,85,000 | | | |
| | | 5,30,000 | | | 5,30,000 |

Some Important Points

1. **Purchases :** This item refers to the goods purchased for resale and includes both cash and credit purchases. The purchases of assets which are meant for permanent use in business such as machinery furniture, etc., are not included in the purchases. The amount taken to Trading Account will be the net amount of purchases (after deducting purchase returns/returns outwards.) If the proprietor has taken away some goods from the business for his personal use, the same should also be deducted from the total purchases.
2. **Sales:** It includes both cash and credit sales of goods and refers to the net amount of sales (after deducting sales returns-returns inwards). Sales of old furniture, car, machinery, etc. are not included in the sales. Similarly, sales of old newspapers etc. are also excluded from sales. Such items are shown as miscellaneous income in the Profit and Loss Account.
3. **Wages:** Wages are usually treated as a direct expense and so shown in the Trading Account. The difficulty arises when wages are clubbed with salaries (an indirect expense) and the Trial Balance includes a single amount for 'Wages and Salaries'. In such a situation, the amount may be shown in the Trading Account. It is based on the assumption that the item includes the salaries of the supervisory staff in the factory itself. But, if the item in the Trial Balance reads 'Salaries and Wages' it will be taken to the Profit and Loss Account on the assumption that the item includes wages of the office staff only. It should be noted that wages paid in connection with the purchases of fixed assets or the construction of building should not be charged to Trading Account. They are to be included in the cost of the concerned fixed asset. There is another important aspect in relation to wages which must be clarified. If a Manufacturing Account is prepared the wages paid to the factory labour is debited to Manufacturing Account about which you will learn later in this unit.

4. **Freight, Carriage and Cartage:** When paid in connection with purchases of goods, they are shown in the Trading Account. Such freight and carriage are also termed as 'Freight Inwards' and 'Carriage Inwards' respectively. 'Freight Outwards' and 'Carriage Outwards' relate to sales and therefore taken to the debit of Profit and Loss Account.
5. **Royalties:** Royalties refer to the payments made for the use of copyright or a patent. The amount of royalty is generally based on the quantity produced. It is, therefore, treated as a direct expense and charged to Trading Account. But if it is calculated on the basis of quantity sold as in case of books, it is shown in the Profit and Loss Account. Royalties are also paid to the Government for extraction of minerals such as coal, diamond, gold, etc. These are charged to the Profit and Loss Account of the mining companies. You will learn about the accounting of such royalties later under a separate course.

9.3.2 Profit and Loss Account

After ascertaining the gross profit by preparing the Trading Account, the businessman proceeds to prepare the Profit and Loss Account in order to work out the net profit/ net loss. You know the net profit is the excess of gross profit and other incomes over the indirect expenses and losses. So, while preparing the Profit and Loss Account, we show gross profit and other incomes such as rent received, discount received, commission received, interest and dividends etc. on the credit side, and all indirect expenses and losses on the debit side. Indirect expenses include all administrative, selling and distribution expenses such as salaries, rent and taxes, postage and stationery, insurance, depreciation, interest paid, office lighting, advertising, packing carriage outwards, etc., while losses refer to items like loss by fire, loss by theft etc. The difference between the two sides of the Profit and Loss Account represent either the net profit or net loss. If the total of the credit side is higher than the total of the debit side, the difference is called net profit and if the debit side total exceeds the credit side total, the difference is called net loss. The net profit/net loss belongs to the proprietor and it is therefore transferred to his Capital Account. Look at figure 9.2. It shows various expenses, losses, incomes, etc., which usually appear in the Profit and Loss Account

Fig. 9.2

Profit and Loss Account

for the period ended

| Dr. | | Cr. | |
|--|---------------|---|---------------|
| Particulars | Amount | Particulars | Amount |
| | Rs. | | Rs. |
| To Gross Loss, if any, (Transferred from TradingAccount) | | By Gross Profit, if any (Transferred from TradingAccount) | |
| To Salaries | | By Interest Received | |
| To Rent, Rates and Taxes | | By Discount Received | |
| To Postage and Telegrams | | By Rent Received | |
| To Telephone Charges | | By Commission Received | |
| To Printing and Stationery | | By Dividend Received | |

Final Accounts

| | |
|-------------------------|----------------------------|
| To Legal Expenses | By Other Incomes and Gains |
| To Insurance | By Net Loss |
| To Office Lighting | (Transferred to |
| To Bad Debts | Capital Account) |
| To Depreciation | |
| To Advertising | |
| To Travelling Expenses | |
| To Carriage Outwards | |
| To Trade Expenses | |
| To Discount Allowed | |
| To Interest Paid | |
| To Repairs and Renewals | |
| To Loss by Fire | |
| To Loss by Theft | |
| To Other Expenses and | |
| Losses, if any | |
| To Net Profit | |
| (Transferred to | |
| Capital Account) | |

Notes:

1. The heading for the Profit and Loss Account, as in the case of the Trading Account, indicates the name of the business or proprietor and the period for which it is being prepared.
2. In addition to the items shown in the above form, there are certain items such as depreciation, bad debts, provision for doubtful debts, interest on capital, interest on drawings, etc., which appear in the Profit and Loss Account as a result of the adjustment entries. We shall discuss them in Unit 10.

Some Important Points

1. **Rent, Rates and Taxes:** These are charges levied by the municipal bodies on the house property. It is a common item of indirect expenses debited to the Profit and Loss Account.
2. **Insurance:** Generally, assets are insured to cover the risk of loss, say, by fire. Premium paid to the insurance company should be treated as a business expense. When assets such as factory building, factory machinery, etc. are insured, the insurance premium should be debited to Trading Account. If on the other hand, the premium is paid for insurance of assets in the office building, office furniture, etc., it should be charged to Profit and Loss Account.
3. **Bad Debts:** Bad debts denote the amount which could not be recovered from the debtors to whom the goods were sold on credit. It is a loss and so debited to the Profit and Loss Account. You will learn more about their treatment in Unit 9.
4. **Depreciation:** Depreciation means decrease in the value of fixed assets due to normal wear and tear. You know that every fixed asset such as machinery, furniture, vehicle, etc. depreciates in value on account of its constant use. Such reduction in their value is a loss to the business and so charged to the Profit and Loss Account. If, however, a Manufacturing Account is also prepared, depreciation on machinery and factory building is charged to the Manufacturing

Account, while depreciation on office building, office furniture, office equipment, etc. is charged to the Profit and Loss Account.

5. **Trade Expenses:** This item represents various small expenses incurred in the business. They are also called General Expenses, Sundry Expenses or Miscellaneous Expenses.
6. **Packing:** The cost of packing materials such as polythene bags, wrapping materials, etc. for delivery is a distribution expense and hence charged to Profit and Loss Account. Where packing is essential to make the products fit for sale in the market as in the case of cigarettes, biscuits, medicines, oil, etc. it is called 'packaging' and such expenditure is charged to the Trading Account.
7. **Samples:** Generally, samples of goods are distributed free of charge to increase sales. The cost of such samples should be treated as a selling expense and so debited to Profit and Loss Account.
8. **Income Tax:** It is the tax payable by a person on his income. In the case of a sole trading concern, the tax paid by the proprietor on the profits of the business is treated as a personal expense. Hence, it should be added to drawings or directly deducted from capital.

Illustration

Prepare Profit and Loss Account from the following balance extracted from the books of a business for the year 2018.

| | Rs. |
|-------------------------------|----------|
| Gross Profit | 1,85,000 |
| Salaries | 20,000 |
| Rent and Rates | 5,000 |
| Stationery | 1,000 |
| Postage | 500 |
| Insurance | 2,000 |
| Repairs | 1,500 |
| Depreciation | 5,000 |
| Advertisement | 5,000 |
| Discount (Dr.) | 500 |
| Commission of Salesmen | 5,000 |
| Bad Debts | 2,000 |
| Loss by Fire | 2,000 |
| Interest on Investments | 2,500 |
| Profit on sale of Investments | 2,000 |

Solution:

Profit and Loss Account of for the year ending December 31, 2018

| Dr. | | Cr. | |
|-------------------|------------|-------------------|------------|
| Particulars | Amount | Particulars | Amount |
| | Rs. | | Rs. |
| To Salaries | 20,000 | By Gross Profit | 1,85,000 |
| To Rent and Rates | 5,000 | (Transferred from | |
| To Stationery | 1,000 | Trading A/c) | |

Final Accounts

| | | | |
|--|----------|----------------------------|----------|
| To Postage | 500 | By Interest on Investments | 2,500 |
| To Insurance | 2,000 | By Profit on Sale of | |
| To Repairs | 1,500 | Investments | 2,000 |
| To Depreciation | 5,000 | | |
| To Advertisement | 5,000 | | |
| To Discount | 500 | | |
| To Commission to Salesmen | 5,000 | | |
| To Bad Debts | 2,000 | | |
| To Loss by Fire | 2,000 | | |
| To Net Profit (Transferred to Capital Account) | 1,40,000 | | |
| | 1,89,500 | | 1,89,500 |

In Practice, the Trading Account and the Profit and Loss Account are combined and one account called 'Trading and Profit and Loss Account' is prepared. This account is divided into two parts. The first part shows the Gross Profit and the second part shows the Net Profit.

Look at illustration and see how combined Trading and Profit and Loss Account will be prepared.

Illustration

From the following figures, prepare Trading and Profit and Loss Account of Lakshmi & Co. for the year ended December 31, 2018.

| | |
|------------------------------|----------|
| | Rs. |
| Stock on January 1, 2018 | 40,000 |
| Purchases | 98,000 |
| Commission Received | 650 |
| Rent, Rates and Taxes | 8,600 |
| Salaries & Wages | 12,000 |
| Sales | 1,62,100 |
| Returns Inwards | 2,400 |
| Returns Outwards | 3,000 |
| Sundry Expenses | 2,500 |
| Bank Charges | 50 |
| Discount Received | 750 |
| Carriage on Purchases | 2,000 |
| Discount Allowed | 530 |
| Carriage on Sales | 1,700 |
| Lighting and Heating | 2,200 |
| Postage | 300 |
| Income from Investments | 500 |
| Commission Paid | 1,000 |
| Interest paid on a bank loan | 550 |

The stock on December 31, 2018 was valued at Rs. 26,000

Solution:

Trading and Profit & Loss Account of Lakshmi & Co.
for the year ended December 31, 2018

| Dr. | | Cr. | |
|--------------------------|-----------------|----------------------------|-----------------|
| Particulars | Amount | Particulars | Amount |
| To Opening Stock | 40,000 | By Sales | 1,62,100 |
| To Purchases | 98,000 | Less: Returns | 2,400 |
| Less: Returns | 3,000 | By closing Stock | 26,000 |
| To Carriage on Purchase | 2,000 | | |
| To Gross Profit c/d | 48,700 | | |
| | <u>1,85,700</u> | | <u>1,85,700</u> |
| To Rent. Rates and Taxes | 8,600 | By Gross Profit b/d | 48,700 |
| To Salaries and Wages | 12,000 | By Commission Received | 650 |
| To Sundry Expenses | 2,500 | By Discount received | 750 |
| To Bank Charges | 50 | By Income from Investments | 500 |
| To Discount Allowed | 530 | | |
| To Carriage on Sales | 1,700 | | |
| To Postage | 300 | | |
| To Commission Paid | 1,000 | | |
| To Interest paid on loan | 550 | | |
| To Lighting & Heating | 2,200 | | |
| To Net Profit | 21,170 | | |
| | <u>50,600</u> | | <u>50,600</u> |

9.3.3 Closing Entries

You learnt that all nominal accounts which represent items of expenses and incomes are closed at the end of the accounting year by transfer to either the Trading Account or the Profit and Loss Account. The journal entries passed for such transfer are called closing entries. You also know that accounts relating to expenses and losses always show debit balances while those representing incomes show credit balances. In order to close an account which shows a debit balance and is to be transferred to the Trading Account we credit the account concerned with an amount equal to its balance and debit the Trading Account. For example, the Carriage Inwards Account Shows a debit balance of Rs. 6,000. The closing entry for this will be as follows:

| | | | | |
|-------------------------|-----|-------|-------|--|
| | | Rs. | Rs. | |
| Trading A/c | Dr. | 6,000 | | |
| To Carriage Inwards A/c | | | 6,000 | |

Similarly, an account which shows a credit balance, will be closed by debiting it with an amount equal to the balance and crediting the Trading Account or Profit and Loss Account, as the case may be. The closing entries are passed in the Journal Proper and it is necessary to pass such entries for preparing the Trading and Profit and Loss Account. The entries required for the items which are to be transferred to the Trading Account are as follows:

Final Accounts

1. Trading Account Dr.
 - To Stock Account (opening)
 - To Purchases Account
 - To Sales Returns Account
 - To Direct Expenses Accounts (to be credited individually)

2. Sales Account Dr.
 - Purchases Returns Account Dr.
 - Stock Account (closing) Dr.
 - To Trading Account
 - Trading Account
 - To Profit and Loss Account
(for Gross Profit)

Note: If there is gross loss, the closing entry will be just the reverse of the above.

When the closing entry is passed for gross profit or gross loss, the Trading Account stands closed.

The entries required for items to be transferred to the Profit and Loss Account are as follows:

1. Profit and Loss Account Dr.
 - To Expenses/LossesAccounts
(to be credited individually)

2. Incomes/Gains Accounts Dr.
 - (to be debited individually)
 - To Profit and Loss Account

3. Profit and Loss Account Dr.
 - To CapitalAccount
(for Net Profit)

Note: If there is net loss, the closing entry will be just the reverse of the above.

Let us see how closing entries for the items given in illustration 4 will be passed. These are as follows:

JOURNAL

| | Name of Account | L.F. | Dr. Balances | Cr. Balances |
|---------|--|------|-----------------------------|------------------------------------|
| 2018 | | | Rs. | Rs. |
| Dec. 31 | Trading A/c Dr. To Opening Stock A/c To Purchase A/c To Sales Returns A/c To Carnage Inwards A/c (Being closing entry) | | 1,42,400 | 40,000 98,000 2,400 2,000 |
| Dec. 31 | Sales Ac Dr. Purchases Returns A/c Dr. Closing Stock A/c Dr. To Trading A/c (Being closing entry) | | 1,62,100 3,000 26,000 | 1,91,100 |

| | | | | |
|---------|----------------------------------|-----|--------|--------|
| Dec. 31 | Trading A/c | Dr. | 48,700 | |
| | To Profit and Loss A/c | | | 48,700 |
| | (Being transfer of gross profit) | | | |
| Dec. 31 | Profit and Loss A/c | Dr. | 29,430 | |
| | To Rent, Rates & Taxes A/c | | | 8,600 |
| | To Salaries & Wages A/c | | | 12,000 |
| | To Sundry Expenses A/c | | | 2,500 |
| | To Bank Charges A/c | | | 50 |
| | To Discount Allowed A/c | | | 530 |
| | To Carriage Outwards A/c | | | 1,700 |
| | To Postage A/c | | | 300 |
| | To Commission Paid A/c | | | 1,000 |
| | To Interest Paid A/c | | | 550 |
| | To Lighting & Heating A/c | | | 2,200 |
| | (Being closing entry) | | | |
| Dec. 31 | Commission Received A/c | Dr. | 650 | |
| | Discount Received A/c | Dr. | 750 | |
| | Income from Inv. A/c | Dr. | 1,500 | |
| | To Profit and Loss A/c | | | 2,900 |
| | (Being closing entry) | | | |
| Dec. 31 | Profit and Loss A/c | Dr. | 21,170 | |
| | To Capital A/c | | | 21,170 |
| | (Being transfer from NP) | | | |

Check Your Progress B

1. Distinguish between Direct and Indirect Expenses.

.....

2. What is the purpose of preparing a Trading Account?

.....

3. State whether the following statements are **True** or **False**.

- i) The gross profit is the difference of total sales and credit sales

- ii) Direct expenses are those expenses which are directly attributable to purchase of goods for resale
- iii) Stock is valued at cost or market price whichever is lower

- iv) The net profit is the excess of gross profit and other incomes over the indirect expenses and losses
 - v) Income tax paid in case of a proprietary concern is charged to Profit and Loss Account
 - vi) Trade Expenses are charged to Trading Account
- 4 Fill in the blanks:
- i) Carriage Outwards is an example of expenses.
 - ii) Cost of goods sold is equal to opening stock plus less
 - iii) Cost of samples distributed free of cost are treated as expenses.
 - iv) All direct expenses are debited to Account.
 - v) Loss on Account of theft is to Profit and Loss Account.
 - vi) Wages and salaries are charged to
- 5 Ascertain the cost of goods sold from the following data:

| | Rs. |
|-----------------|--------|
| Direct Expenses | 8,000 |
| Opening Stock | 12,000 |
| Purchases | 80,000 |
| Interest Paid | 500 |
| Closing Stock | 10,000 |

9.4 BALANCE SHEET

After ascertaining the net profit or net loss by preparing the Trading and Profit and Loss Account, the final step in preparing final accounts is the preparation of Balance Sheet. The purpose of Balance Sheet is to ascertain the financial position of a business i.e., to know what the business owes and what it owns on a certain date. Hence it shows all assets and liabilities of the business as at the end of the accounting year.

You know that final accounts are prepared from the Trial Balance. All items of expense and income appearing in Trial Balance are transferred to the Trading and Profit and Loss Account. The remaining items which represent the balances of personal and real accounts are shown in the Balance Sheet. The accounts showing debit balances represent assets and those showing credit balances represent liabilities.

Look at Figure 9.3 and note how various assets and liabilities appear in the Balance Sheet.

Table 9:3 : Balance Sheet of
as on

| Dr. | | Cr. | |
|----------------------------|--------|-----------------------|--------|
| Liabilities | Amount | Assets | Amount |
| Current Liabilities | Rs. | Current Assets | Rs. |
| Bank Overdraft | ..... | Cash in hand | ..... |
| Bills Payable | ..... | Bills Receivable | ..... |
| Sundry Creditors | ..... | Cash at bank | ..... |

| | | | |
|------------------------------|-------|------------------------|-------|
| | | Sundry Debtors | ..... |
| Long-term Liabilities | | Closing Stock | ..... |
| Loan | ..... | Investments and | |
| Mortgages | ..... | Fixed Assets | |
| Capital Balance..... | | Vehicles | ..... |
| Add: Net Profit..... | _____ | Furniture | ..... |
| | | Plant & Machinery | ..... |
| Less: Drawings..... | _____ | Land & Buildings | ..... |
| | | Goodwill | ..... |
| | _____ | | _____ |
| | | | |

You should know that the Balance Sheet is prepared to ascertain the financial position at a particular point of time and not for a period. Hence the heading of the Balance Sheet will always read 'Balance Sheet as on'(usually last date of the accounting year).

The total of assets should always be equal to the total of liabilities. If however, they do not tally, it would mean that some errors have been committed while preparing the final accounts. You must recheck the treatment of all items including the arithmetical aspect, and make the corrections where necessary so that the Balance Sheet tallies.

Assets: The term 'assets' denote the economic resources (property) of the business and includes all current and fixed assets. You know current assets are those assets which are likely to be realised within a period of one year (or during the normal operating cycle) and includes cash, stock, debtors, bills receivable, short-term investments, etc. The fixed assets, on the other hand, are those assets which are acquired for use in the business over a long period. They may be tangible like machinery and furniture, or intangible like goodwill, patents, etc. The assets also include certain expenses and losses which have not been written off in full. Examples of such expenses are: formation expenses, expenses incurred on issue of shares and debentures, unwritten amount of expenditure on advertising, etc. These are shown as the last item under 'Assets' in the Balance Sheet.

Liabilities: The term 'liabilities' denote all claims against the assets of the business whether those of the outsiders (creditors) or those of the owners of the business. The outsider's claim may be sub-divided into (i) current liabilities, and (ii) long-term liabilities. These are shown separately in the Balance Sheet (see Figure 9.3). The current liabilities are those obligation which are likely to be met within one year (or during the normal operating cycle). The long-term liabilities refer to item like loans which are not to be paid in the near future. The owner's claim is shown as capital after adjusting it with the amount of net profit and drawings during the year.

Look at illustration and see how Balance Sheet is prepared from given list of balances.

Illustration

From the following balances extracted from the books of Deepak Brothers, prepare Balance Sheet as on December 31, 2018.

| | | | |
|---------------------|-----------|---------------|----------|
| | Rs. | | Rs. |
| Capital | 12,00,000 | Bills Payable | 40,000 |
| Net Profit for 2018 | 6,00,000 | Debtors | 2,50,000 |

Final Accounts

| | | | |
|--------------------------------|----------|------------------|----------|
| Land & Buildings | 7,00,000 | Bills Receivable | 50,000 |
| Plant & Machinery | 4,00,000 | Loan | 1,60,000 |
| (after depreciation) | | Bank Overdraft | 20,000 |
| Furniture (after depreciation) | 50,000 | Cash in hand | 60,000 |
| Investment | 3,50,000 | Loose Tools | 50,000 |
| Creditors | 2,00,000 | Goodwill | 1,00,000 |
| Trade marks | 25,000 | Closing stock | 1,85,000 |

Solution:

Balance Sheet of Deepak Brothers as on December 31, 2018

| Liabilities | Amount | Assets | Amount |
|------------------------------|------------------|-----------------------|------------------|
| Current Liabilities | Rs. | Current Assets | Rs., |
| Bank Overdraft | 20,000 | Cash in Hand | 60,000 |
| Bills Payable | 40,000 | Bills Receivable | 50,000 |
| Sundry Creditors | 2,00,000 | Sundry Debtors | 2,50,000 |
| | | Stock in Hand | 1,85,000 |
| | | Investments | 3,50,000 |
| Long-term Liabilities | | | |
| Loan | 1,60,000 | | |
| Capital | | Fixed Assets | |
| Balance as on | | Loose Tools | 50,000 |
| Jan. 1, 2018 | 12,00,000 | Furniture | 50,000 |
| Add: Net Profit | <u>6,00,000</u> | Plant & Machinery | 4,00,000 |
| | 18,00,000 | Land & Buildings | 7,00,000 |
| | | Trade Marks | 25,000 |
| | | Goodwill | 1,00,000 |
| | <u>22,20,000</u> | | <u>22,20,000</u> |

Now Look at illustration . It shows how the Trading and Profit and Loss Account and the Balance Sheet are prepared from a given Trial Balance.

Illustration

From the following Trial Balance of Gupta & Sons, prepare Trading and Profit and Loss Account for the year ended December 31, 2018 and a Balance Sheet as on that date.

Trial Balance

| Particulars | Dr. Balances | Cr. Balances |
|-----------------------|-----------------|-----------------|
| | Rs. | Rs. |
| Capital | | 5,00,000 |
| Sales | | 10,00,000 |
| Sales Returns | 25,000 | |
| Purchases | 5,00,000 | |
| Purchase Returns | | 15,000 |
| Inventory on 1.1.2018 | 60,000 | |
| Land & Pilings | 4,00,000 | |
| Plant & Machinery | 2,50,000 | |

| | | |
|--------------------------------------|-----------|-----------|
| Furniture | 1,00,000 | |
| Wages | 50,000 | |
| Carriage Inwards | 10,000 | |
| Carriage Outwards | 5,000 | |
| Cartage | 5,000 | |
| Salaries | 40,000 | |
| Loan | | 2,60,000 |
| Debtors | 1,50,000 | |
| Creditors | | 85,000 |
| Bills Receivable | 40,000 | |
| Acceptances | | 10,000 |
| General Expenses | 20,000 | |
| Rent & Rates | 10,000 | |
| Investments | 50,000 | |
| Cash in Hand | 50,000 | |
| Bank Overdraft | | 10,000 |
| Discount Allowed | 4,500 | |
| Depreciation on Plant & Machinery | 50,000 | |
| Interest on Investments | | 5,000 |
| Interest on Bank Overdraft | 500 | |
| Goodwill | 60,000 | |
| Bad Debts | 5,000 | |
| | <hr/> | <hr/> |
| | 18,85,000 | 18,85,000 |

The inventory on December 31, 2018 was valued at Rs. 1,00,000.

Solution:

**Trading and Profit & Loss Account of Gupta & Sons
For the year ended December 31, 2018**

| Dr. | Amount | Particulars | Amount | Cr. |
|------------------------|---------------|---------------------------|---------------|-------------|
| Particulars | Rs. | Particulars | Rs. | Particulars |
| To Inventory (Opening) | 60,000 | By Sales | 10,00,000 | |
| To Purchases | 5,00,000 | Less: Returns | <u>25,000</u> | 9,75,000 |
| Less: Returns | <u>15,000</u> | By Inventory (Closing) | | 1,00,000 |
| | 4,85,000 | | | |
| To Wages | 50,000 | | | |
| To Carriage Inwards | 10,000 | | | |
| To Cartage | 5,000 | | | |
| To Gross Profit c/d | 4,65,000 | | | |
| | <hr/> | | | |
| | 10,75,000 | | | <hr/> |
| | <hr/> | | | <hr/> |
| To Carriage Outwards | 5,000 | By Gross Profit b/d | 4,65,000 | |
| To Salaries | 40,000 | By Interest on Investment | 5,000 | |
| To General Expenses | 20,000 | | | |
| To Rent and Rates | 10,000 | | | |
| To Discount | 4,500 | | | |
| To Bad debts | 5,000 | | | |
| To Depreciation | 50,000 | | | |

| | | | |
|--|----------|--|----------|
| To Interest on Bank overdraft | 500 | | |
| To Net Profit (Transferred to Capital Account) | 3,35,000 | | |
| | 4,70,000 | | 4,70,000 |

Balance Sheet of Gupta & Sons as on December 31, 2018

| Liabilities | Amount | Assets | Amount |
|--------------------------|-----------|---------------------|-----------|
| | Rs. | | Rs. |
| Capital 5,00,000 | | Goodwill | 60,000 |
| Add: Net Profit 3,35,000 | 8,35,000 | Land & Building | 4,00,000 |
| Loan | 2,60,000 | Plant & Machinery | 2,50,000 |
| Creditors | 85,000 | Furniture | 1,00,000 |
| Acceptances | 10,000 | Investment | 50,000 |
| Bank Overdraft | 10,000 | Inventory (closing) | 1,00,000 |
| | | Debtors | 1,50,000 |
| | | Bills Receivables | 40,000 |
| | | Cash in Hand | 50,000 |
| | 12,00,000 | | 12,00,000 |

Note: In the above Balance Sheet all assets and liabilities have been shown in the order of permanence.

9.5 VERTICAL PRESENTATION OF FINAL ACCOUNTS

The Trading and Profit and Loss Account and the Balance Sheet have so far been presented as a two-sided statement. But, in practice, it is not necessary to present the final accounts in this form. Nowadays many firms present them in a simpler and more intelligible form which is called a 'narrative style' or 'vertical presentation'.

According to this style the Trading and Profit and Loss Account as well as the Balance Sheet are shown in the form of vertical statements. This form of presentation is adopted by many companies for publication of their final accounts. It helps the users of financial statements to appreciate the significance of different items without any difficulty. They can easily interpret the data and judge the profitability and the financial position of the company.

Look at Figure 9.4 and study how various items are shown in the Trading and Profit and Loss Account and the Balance Sheet in vertical form.

Table 9.4 : Trading and Profit and Loss Account offor the year ended

| | Rs. | Rs. |
|---------------------------------|-------|-------|
| SALES | | |
| Less Cost of Goods Sold: | | |
| Opening Stock | | |
| Add: Purchases | | |
| Add: Direct Expenses | | |

| | | |
|---------------------------------|-------|-------|
| Less Closing Stock | ..... | ..... |
| GROSS PROFIT | ..... | ..... |
| Add Other incomes | ..... | ..... |
| Less Indirect Expenses : | | |
| Salaries | ..... | ..... |
| Rent | ..... | ..... |
| Sundry Expenses | ..... | ..... |
| Insurance | ..... | ..... |
| NET PROFIT | ..... | ..... |
| Balance Sheet of..... | | |
| as on | | |

Fixed Assets:

| | | |
|------------------------|-------|-------|
| Land and Buildings | ..... | ..... |
| Plant and Machinery | ..... | ..... |
| Furniture and Fixtures | ..... | ..... |
| Vehicles | ..... | ..... |

Current Assets:

| | | |
|---------------|-------|-------|
| Stock-in-hand | ..... | ..... |
| Debtors | ..... | ..... |
| Cash at bank | ..... | ..... |
| Cash in hand | ..... | ..... |

Less Current Liabilities:

| | | |
|-----------------|-------|-------|
| Creditors | ..... | ..... |
| Bills Payable | ..... | ..... |
| Working Capital | ..... | ..... |

Financed by:

Capital:

| | | |
|-----------------------------|-------|-------|
| Balance as on 1.1.2018 | ..... | ..... |
| Add Net Profit for the year | ..... | ..... |
| Less: Drawings | ..... | ..... |
| Loans | ..... | ..... |

Look at illustration and study how Trading and Profit and Loss Account and the Balance Sheet have been prepared for vertical presentation.

Illustration

From the information given in illustration 6, prepare Trading and Profit and Loss Account and the Balance Sheet in the vertical form.

Solution:

*Trading and Profit and Loss Account of Gupta & Sons
for the year ended December 31, 2018*

| | Rs. | Rs. |
|--|----------|----------|
| Sales Less Returns (Rs. 10,00,000—Rs. 25,000) | | 9,75,000 |
| Less: Cost of Goods Sold: | | |
| Inventory (beginning) | 60,000 | |
| Add: Purchases less Returns (Rs. 5,00,000—Rs. 15,000) | 4,85,000 | |
| Add: Wages | 50,000 | |
| Add: Carriage Inwards | 10,000 | |
| Add: Cartage | 5,000 | |
| | 6,10,000 | |
| Less: Inventory (ending) | 1,00,000 | 5,10,000 |
| GROSS PROFIT | | 4,65,000 |
| Add: interest on Investments | | 5,000 |
| | | 4,70,000 |
| Less: Indirect Expenses: | | |
| Cartage | 5,000 | |
| Salaries | 40,000 | |
| General Expenses | 20,000 | |
| Rent and Rates | 10,000 | |
| Discount | 4,500 | |
| Bad Debts | 5,000 | |
| Interest on Bank Overdraft | 500 | |
| Depreciation | 50,000 | |
| | 1,35,000 | |
| NET PROFIT | | 3,35,000 |

Balance Sheet of Gupta & Sons as on December 31, 2018

| | | |
|------------------------|----------|--|
| Fixed Assets: | | |
| Goodwill | 60,000 | |
| Land & Building | 4,00,000 | |
| Plant & Machinery | 2,50,000 | |
| Furniture | 1,00,000 | |
| Investments | 50,000 | |
| | 8,60,000 | |
| Current Assets: | | |
| Inventory (ending) | 1,00,000 | |
| Debtors | 1,50,000 | |
| Bills Receivables | 40,000 | |
| Cash in hand | 50,000 | |
| | 3,40,000 | |

| | | | |
|-----------------------------------|---------------|-----------------|------------------|
| Less: Current Liabilities: | | | |
| Creditors | 85,000 | | |
| Acceptances | 10,000 | | |
| Bank overdraft | <u>10,000</u> | <u>1,05,000</u> | <u>2,35,000</u> |
| Working Capital | | | <u>10,95,000</u> |
| Financed by: | | | |
| Capital Balance on 1.1.2018 | | 5,00,000 | |
| Add: Net Profit | | <u>3,35,000</u> | 8,35,000 |
| Long Term Loans | | | <u>2,60,000</u> |
| | | | <u>10,95,000</u> |

Check Your Progress C

1. What is a Balance Sheet?

.....
.....
.....

2. Why firms use vertical form of presenting the final accounts?

.....
.....
.....

3. Complete the following sentences choosing one of the two alternatives given within brackets.

i) Assets representbalances of personal and real accounts. (debit! credit)

ii) All liabilities which become due within one year are classified asliabilities. (long-term/current)

iii) Unwritten off amount of a deferred revenue expenditure is shown on theside of the Balance Sheet. (asset/liabilities)

iv) Totals of assets and liabilities are always(different/equal)

v) Loose Tools are classified asassets. (fixed/current)

vi) Mortgages are classified asliabilities. (current/long-term)

9.6 MANUFACTURING ACCOUNT

In case of trading concerns you can find out the cost of goods and the gross profit by preparing a Trading Account. But a manufacturing concern has to first prepare another account called Manufacturing Account with the help of which it works out the cost of goods produced. The cost of goods produced is then transferred to the Trading account for ascertaining the cost of goods sold and the gross profit.

A manufacturing concern purchases raw materials from the market and converts them into finished goods for sale. The cost of goods produced thus includes two major costs: (i) cost of raw materials consumed, and (ii) cost of conversion.

.....

.....

.....

.....

.....

.....

.....

.....

Some Important Points

Scrap: The term 'scrap' is used for waste materials coming out of the manufacturing process. Cuttings of cloth in readymade garments factory and metal cuttings in engineering factories are some examples of scrap. Any amount realised from the sale of scrap must be adjusted in the cost of goods produced. Hence, it is credited to the Manufacturing Account.

Work-in-Progress: It is quite likely that at the end of the year, there may be certain goods which are still in the process of manufacture. Such goods are called 'semi-finished goods' or 'work-in-progress'. There will always be some work-in-progress at the beginning as well as at the end of the accounting year. Their cost must be adjusted while working out the cost of goods produced. Hence the opening work-in-progress is shown on the debit side of the Manufacturing Account while the closing work-in-progress is shown on its credit side.

Stock of Finished Goods: Besides the stock of raw materials and semi-finished goods every firm will have the stock of finished goods. This is to be adjusted in the cost of goods sold and not in the cost of goods produced. Hence, it is not shown in the Manufacturing Account. As you learnt earlier, it will be shown in the Trading Account.

9.7 LET US SUM UP

At the end of the accounting year the businessman prepares the final accounts with the help of a Trial Balance. The final accounts consist of (i) Profit and Loss Account and (ii) Balance Sheet. The Profit and Loss Account is prepared for ascertaining the net profit/net loss of the business during the year and the Balance Sheet is prepared for ascertaining its financial position as at the end of the year.

The Profit and Loss Account is divided into two sections. The first section called Trading Account reveals the gross profit or gross loss and the second section called Profit and Loss Account shows the net profit or net loss. Gross profit is defined as the excess of sale revenue over the cost of goods sold which also includes the direct expenses. The net profit is worked out by-crediting the Profit and Loss Account with the amount of gross profit and other incomes and debiting it with all indirect expenses and losses. In practice, we usually prepare a combined Trading and Profit and Loss Account. It is also necessary to pass closing entries for transferring all expenses and incomes to the Trading and Profit and Loss Account.

The Balance Sheet shows all assets and liabilities of the business. The assets represent the debit balances of the real and personal accounts plus the unwritten off amounts of deferred revenue expenses. The liabilities, on the other hand, represent the credit balances of real and personal accounts including capital. The total assets should always be equal to the total of liabilities.

The manufacturing concerns may also prepare a Manufacturing Account for ascertaining the cost of goods produced, which is then transferred to the Trading Account for ascertaining the cost of goods sold and the gross profit. This, however, is not compulsory. Most manufacturing concerns prepare the Trading Account directly showing all-expenses incurred in the factory (including cost of raw materials consumed) in the Trading Account itself.

9.8 KEY WORDS

Closing Stock: Goods remaining unsold at the end of the accounting year.

Cost of Conversion: Expenses incurred in the factory (for converting raw materials into finished goods.)

Cost of Goods Sold: Difference between the cost of goods available for sale and the cost of goods in stock.

Cost of Production: It is the cost of goods produced which includes cost of raw materials consumed and all manufacturing expenses.

Current Assets: Assets which are likely to be realised within a period of one year or during the operating cycle. They are also called floating assets.

Current Liabilities: Liabilities which are likely to be paid within one year or during the operating cycle. They are also called short-term liabilities.

Direct Expenses: Expenses incurred on the goods purchased till they are brought to the place of business.

Fictitious Assets: Expenses and losses not yet written off and shown as assets in the Balance Sheet.

Fixed Assets: Assets acquired for use in the business for a long period. They are also called non-current assets.

Gross Profit: Excess of sales revenue over the cost of goods sold.

Indirect Expenses: All expenses other than direct expenses. These include expenses incurred in connection with general administration, financial matters and selling and distribution of goods.

Intangible Assets: Assets in the form of rights which cannot be seen or touched such as goodwill, patents, etc.

Net Profit: Excess of gross profit and other incomes over the indirect expenses and losses in the business.

Non-Current Liabilities : Liabilities payable after a long time. They are also called long-term liabilities.

Owner's Capital: Claim of owners against the assets of the business. It is also called owner's equity and is equal to excess of assets over outside liabilities.

Opening Stock: Stock of goods as at the beginning of the accounting year.

Scrap: Waste material which arises in the course of manufacture.

Tangible Assets: Assets which have physical form and can be seen and touched such as buildings, machinery, etc.

Work-in-Progress: Goods in respect of which some work still remains to be done. They are also called semi-finished goods.

9.9 SOME USEFUL BOOKS

Maheshwari, S.N. 2018. Introduction to Accounting, Vikas Publishing House: New Delhi.

Patil, V.A. and J.S. Korlahalli. 1986. Principles and Practice of Accounting, R. Chand & Co., New Delhi.

William Pickles. 1992. Accountancy, E.L.B:s. and Pitman: London.

Gupta, R.L. and M. Radhaswamy. 2018. Advanced Accountancy; Sultan Chand & Sons: New Delhi.

Shukla, M.C. and T.S. Grewal. 2018. Advanced Accountancy, S. Chand & Co.: New Delhi.

9.10 ANSWERS TO CHECK YOUR PROGRESS

- A 1. i) Debit ii) Debit iii) Debit iv) Credit v) Debit
vi) Credit vii) Debit viii) Credit ix) Debit x) Debit
xi) Debit xii) Credit
- B 3. i) False ii) rue iii) True iv) True v) False vi) False.
4. i) indirect ii) purchases, closing stock iii) selling iv) Trading v) debited
vi) Trading Account
5. Rs. 90,000
- C 3. i) debit ii) current iii) asset iv) equal v) fixed vi) long-term

9.11 TERMINAL QUESTIONS/EXERCISES

Questions

- Distinguish between:
 - Cost of Goods Sold and Cost of Goods Processed
 - Gross Profit and Net Profit
 - Direct Expenses and Indirect Expenses
 - Trading Account and Manufacturing Account
 - Profit and Loss Account and Balance Sheet
- Give closing entries for Trading and Profit and Loss Account.
- What is a Balance Sheet? Describe different methods of arranging assets and liabilities.

Exercises

- Find out the Cost of Goods Sold from the following figures extracted from the books of Allied Ltd. for the year 2018:

| | Rs. |
|-------------------|-----------|
| Stock (1.1.2018) | 50,000 |
| Purchases | 10,00,000 |
| Sales | 15,00,000 |
| Purchases Returns | 50,000 |
| Stock (31-1-2018) | 70,000 |
| Direct Expenses | 60,000 |
| Indirect Expenses | 1,00,000 |

(Answer: Rs. 9,90,000)

Final Accounts

2. Find out the Cost of Goods Sold and Gross Profit from the following figures:

| | Rs. | 57 |
|----------------------------|-----------|----|
| Inventory in the beginning | 60,000 | |
| Purchases Less Returns | ,00,000 | |
| Carriage Inwards | 20,000 | |
| Cartage Outwards | 30,000 | |
| Cartage and Freight | 10,000 | |
| Wages | 50,000 | |
| Sales Less Returns | 12,00,000 | |
| Inventory at the end | 40,000 | |

(Answer: Cost of Goods Sold Rs, 7,00,000; Gross Profit Rs. 5,00,000.)

3. From the data given in Question No. 2 prepare Trading Account



Structure

- 10.0 Objectives
- 10.1 Introduction
- 10.2 Need for Adjustments
- 10.3 Treatment of Adjustments in Final Accounts
 - 10.3.1 Closing Stock
 - 10.3.2 Outstanding Expenses
 - 10.3.3 Prepaid Expenses
 - 10.3.4 Accrued Income
 - 10.3.5 Income Received in Advance
 - 10.3.6 Depreciation
 - 10.3.7 Interest on Capital
 - 10.3.8 Interest on Drawings
 - 10.3.9 Interest on Loan
 - 10.3.10 Bad Debts
 - 10.3.11 Provision for Bad Debts
 - 10.3.12 Provision for Discount on Debtors
 - 10.3.13 Provision for Discount on Creditors
 - 10.3.14 Manager's Commission
 - 10.3.15 Abnormal Loss of Stock
 - 10.3.16 Drawings of Goods by the Proprietor
- 10.4 Preparation of Final Accounts with Adjustments
- 10.5 Adjustments given in Trial Balance
- 10.6 Let Us Sum Up
- 10.7 Key Words
- 10.8 Some Useful Books
- 10.9 Answers to Check Your Progress
- 10.10 Terminal Questions/Exercises

10.0 OBJECTIVES

After studying this unit you should be able to:

- explain why adjustment entries are necessary at the time of preparing the final accounts;
- list the items in respect of which adjustments are usually made;
- pass the necessary adjustment entries; and
- prepare final accounts with adjustments.

10.1 INTRODUCTION

In Unit 8 you learnt about the preparation of simple final accounts. They did not involve any adjustments. In practice, however, you are always required to make some adjustments while preparing the final accounts. It is because there may be many expenses and incomes relating to the current year which are still to be brought into the books of account. Then there may be certain items recorded in current year's books which actually relate to the previous year or the next year. Unless such items are duly adjusted in the books of account, the final accounts will not reveal the true and fair view of the state of affairs of the business. In this unit you will learn about all items which require adjustments and study how such adjustments are made in books of account and how they are incorporated in the final accounts.

10.2 NEED FOR ADJUSTMENTS

You know that the financial reporting requires the summarisation of business operations for a specific accounting period. It is quite possible that certain transactions recorded in current year's books may partly relate to the previous year or to the following year. It is also possible that certain expenditure incurred during the current year has not yet been paid and so not recorded. Similarly, there may be certain incomes earned during the current year which have not been recorded because they have not yet been received; If such items are not adjusted or brought into current year's books of account, the summary presented in the form of final accounts will not reveal the true picture. Let us take the example of an amount of Rs. 600 paid on July 1, 2018 towards insurance premium. You know any general insurance usually covers a period of twelve months. Suppose the accounting year is ending on December 31, 2018 it would mean that half the amount of insurance premium paid on July 1, 2018 pertains to the next accounting year i.e., 2019. Therefore, while preparing the final accounts of 2018, the expenditure on insurance premium that should be debited to the Profit and Loss Account is Rs. 300 (Rs. 600 paid Rs. 300 pertaining to 2019). The remaining amount of Rs. 300 will be carried forward and charged to the Profit and loss Account of 2019. Take another example. The wages of workers for the month of December, 2018 were paid on January 7, 2019. This means the Wages Account of 2018 does not include the wages for the month of December 2018. Such unpaid wages termed as 'Wages outstanding' have to be brought into the books and debited to the Trading Account along with the wages already paid. Similarly, adjustment may also become necessary in respect of certain incomes received in advance or those which are outstanding as at the end of the accounting year. Apart from these, there are certain items which cannot be recorded on day-to-day basis such as depreciation, interest on capital, etc. They are generally adjusted at the time of preparing the final accounts.

All items which need alteration or which are to be brought into books at the time of preparing final accounts are called 'adjustments'. The purpose of making various adjustments is to ensure that the final accounts reveal the true financial position of the business. Therefore, when you are to prepare the final accounts of any business, you are provided with a Trial Balance and some additional information in respect of the adjustments to be made.

10.3 TREATMENT OF ADJUSTMENTS IN FINAL ACCOUNTS

There are several items which need adjustment at the time of preparing the final accounts. Some of the important and common adjustments are listed below:

1. Closing Stock
2. Outstanding or Accrued Expenses
3. Prepaid or Unexpired Expenses
4. Outstanding or Accrued Incomes
5. Incomes Received in Advance (Unearned Income)
6. Depreciation
7. Interest on Capital
8. Interest on Drawings
9. Interest on Loan
10. Bad Debts
11. Provision for Bad Debts
12. Provision for Discount on Debtors
13. Provision for Discount on Creditors
14. Manager's Commission
15. Abnormal Loss
16. Drawing of Goods by the Proprietor

Let us now discuss the nature of each item of adjustment and its treatment in the final accounts. In this connection you must remember that the general principle of double entry has to be fully followed. Hence, for bringing any item into the books of account or adjusting the amount of any expense or income, you have to ensure that the amount is debited to one account and credited to another; and while showing it in the final accounts the item should appear at two places, one representing the debit and the other representing the credit, otherwise the Balance Sheet will not tally. Usually, each adjustment will first appear in the Trading and Profit and Loss Account and then in the Balance Sheet.

10.3.1 Closing Stock

You know that all goods purchased or produced during the year are not completely sold out by the end of the year. Some goods always remain unsold as at the end of the year which are called 'Closing Stock'. The Closing Stock does not usually appear in the Trial Balance. It is mostly given in the form of additional information. Since Gross Profit/Gross Loss cannot be worked out without accounting for the closing stock it is brought into books by means of the following adjustment entry.

| | |
|-------------------|-----|
| Closing Stock A/c | Dr. |
| To Trading A/c | |

The closing stock is treated in the final accounts as follows:

- i) On the credit side of Trading Account: shown as a separate item, and
- ii) On the assets side of the Balance Sheet: shown as a separate item under Current Assets.

Adjusted Purchases and Closing Stock: Sometimes the closing stock may be given in the Trial Balance itself. This would mean that both the opening and the closing stocks have been adjusted in the purchases. In such a situation, the opening stock will not appear in the Trial Balance. The Trial Balance will show only the figures of adjusted purchases and the closing stock. The adjusted purchases are in fact the cost of goods sold. They have been worked out by adding the opening stock to purchases and subtracting the closing stock therefrom. Hence, the adjusted Purchases are shown on the debit side of the Trading Account. In such a situation there is no need to show closing stock in the Trading Account as it already stands adjusted in purchases. It will be shown only on the asset side of the Balance Sheet.

10.3.2 Outstanding Expenses

Outstanding expenses are those expenses which have been incurred during the current accounting year but have not been paid till the end of the year. They are also called 'expenses accrued'. The common examples of such expenses are the salaries, wages and rent for the last month of the accounting year paid in the first month of the next year. Since they remained unpaid as at the end of accounting year, no entry might have been passed in the books of account. So, they must be taken into account while preparing the Trading and Profit and Loss Account otherwise it will not reveal the correct amount of profit or loss. The following adjustment entry is passed in respect of outstanding expenses.

| | |
|-----------------------------|-----|
| Concerned Expense A/c | Dr. |
| To Outstanding Expenses A/c | |

The outstanding expenses will be treated in final accounts as follows:

- i) Added to the concerned expenses in the Trading and Profit and Loss Account, and
- ii) Shown on the liabilities side of the Balance Sheet as a separate item under Current Liabilities.

10.3.3 Prepaid Expenses

Sometimes, the benefit of some expenses will be available not only in the current accounting year but also during the next year. That portion of expense the benefit of which is yet to be received is called 'prepaid expense'. It is also called 'unexpired expense'. Examples of such expenses are unexpired insurance, interest paid in advance, etc. In such situations it is necessary to find out the unexpired portion and adjust it in the concerned expense. The following adjustment entry is passed in respect of the prepaid expenses:

| | |
|--------------------------|-----|
| Prepaid Expenses A/c | Dr. |
| To Concerned Expense A/c | |

The Prepaid expenses will be treated in final accounts as follows:

- i) Subtracted from concerned expense in the Trading and Profit and Loss Account, and
- ii) Shown on the assets side of the Balance Sheet as a separate item under Current Assets.

10.3.4 Accrued Income

Accrued Incomes are those incomes which have been earned during the current accounting year but have not been received till the end of the year. They are also called 'outstanding incomes' or 'incomes earned but not yet received'. Examples of such incomes are commission receivable, income on investments due but not yet received, etc. The following adjustment entry is passed in respect of accrued income.

| | |
|-------------------------|-----|
| Accrued Income A/c | Dr. |
| To Concerned Income A/c | |

The Accrued income is treated in final accounts as follows:

- i) Added to the concerned income in the Profit and Loss Account, and
- ii) Shown on the asset side of the Balance Sheet as a separate item under Current Assets.

10.3.5 Income Received in Advance

Any income which belongs to the next accounting year but has been received during the current accounting year is called 'income received in advance' or 'unearned income'. It is the income in respect of which the service is yet to be provided. Examples of such incomes are rent received in advance, interest received in advance, etc. In such a situation, the unearned portion of the income will have to be adjusted while preparing the final accounts. The following adjusting entry is passed in respect of the unearned income.

| | |
|-----------------------------------|-----|
| Concerned Income A/c | Dr. |
| To Income Received in Advance A/c | |

The unearned income is treated in final accounts as follows:

- i) Deducted from the concerned income in the Profit and Loss Account, and
- ii) Shown on the liabilities side of the Balance Sheet as a separate item under Current Liabilities.

Look at illustration and see how adjustments are made in the final accounts in respect of outstanding expenses, prepaid expenses, outstanding incomes and incomes received in advance.

Illustration

Show how you will record the following items in the Profit and Loss Account and the Balance Sheet.

The Trial Balance showed the following balances as on December 31, 2018:

| | Rs. |
|-------------------------|--------|
| Salaries | 10,000 |
| Wages | 20,000 |
| Rent Received | 6,600 |
| Commission Received | 2,000 |
| Interest on Investments | 6,000 |

Additional Information

- i) Salaries amounting to Rs. 2,000 are outstanding.

- ii) Wages include Rs. 1,560 paid in advance.
- iii) Interest on investment include Rs. 1,200 for the months of January, February and March, 2019.
- iv) Rent for the month of December amounting to Rs. 600 is not yet received.

Gross profit for the year is Rs. 40,000 and other expenses amounted to Rs. 10,000

Profit and Loss Account for the year ended December 31, 2018

| Particulars | Amount | Particulars | Amount |
|-------------------------------|--------|-----------------------------|--------|
| | Rs. | | Rs. |
| To Salaries 10,000 | | By Gross Profit b/d | 40,000 |
| Add: Outstanding <u>2,000</u> | 12,000 | By Rent Received 6,600 | |
| To Wages 20,000 | | Add: Outstanding <u>600</u> | 7,200 |
| Less: Prepaid <u>1,500</u> | 18,500 | By Commission Received | 2,000 |
| To Other Expenses 10,000 | | By Interest on | |
| To Net Profit | | Investments 6,000 | |
| (Transferred to Capital A/c) | 13,500 | Less: Received | |
| | | in Advance 1,200 | 4,800 |
| | 54,000 | | 54,000 |

Balance Sheet As on December 31, 2018

| Liabilities | Amount | Assets | Amount |
|------------------------------|--------|-------------------------|--------|
| Current Liabilities: | Rs. | Currents Assets: | Rs. |
| Salaries Outstanding | 2,000 | Wages Prepaid | 1,500 |
| Interest Received in Advance | 1,200 | Rent Outstanding | 600 |

10.3.6 Depreciation

Depreciation means decrease in the value of fixed assets due to their usage and the passage of time. You know the fixed assets are used for the purpose, of earning revenue. Therefore, the fall in their value should be considered as an expense or loss incurred in realising such revenue and should be charged to the Profit and Loss Account. Depreciation is not recognised on day-to-day basis. It is brought into the books only at the end of the accounting period by passing the following journal entry.

| | |
|------------------------|-----|
| Depreciation A/c | Dr. |
| To Concerned Asset A/c | |

Depreciation is treated in final accounts as follows:

- i) On the debit side of the Profit and Loss Account: shown as a separate item giving details of depreciation on each fixed asset, and
- ii) Deducted from the concerned asset in the Balance Sheet.

Sometimes depreciation is given in the Trial Balance itself. This is possible only if the entry in respect of depreciation has already been passed in the books of account. **In**

such a situation depreciation will be shown in the Profit and Loss Account only.

It need not be adjusted in the fixed assets in the Balance Sheet because the fixed assets already stand reduced by the amount of depreciation.

Depreciation is generally calculated at the given rate for the period for which the asset has been used in the accounting year. Thus, if an-asset is purchased during the current year the depreciation should be calculated from the date of acquisition till the end of the year. If the date on which the additions were made is not given, you should calculate depreciation on additions also for the full year. In the case of old assets, depreciation is calculated on the opening balance. Look at illustration and study how depreciation is treated at the time of preparing the final account.

Illustration

The following are the balances of assets as on January 1, 2018:

| | |
|---------------------|----------|
| | Rs. |
| Plant and Machinery | 1,20,000 |
| Furnitur | 18,000 |

A new machinery costing Rs. 30,000 was acquired on July, 1, 2018. Depreciation is to be provided on Plant and Machinery at 10% and on furniture at 5% per annum. Show how depreciation will be shown in the final accounts.

Solution :

Calculation of Depreciation

| | | |
|----------------------------------|--------------|---------------|
| On Furniture at 5% on Rs. 18,000 | | Rs. 900 |
| On Plant and Machinery: | | |
| 10% on Rs. 1,20,000 for one year | 12,000 | |
| 10% on Rs. 30,000 for six months | <u>1,500</u> | |
| | | <u>13,500</u> |
| | | <u>14,400</u> |

Solution:

Treatment in Final Accounts

| Particulars | Amount | Particulars | Amount |
|--------------------------|--------|-------------|--------|
| | Rs. | | Rs. |
| To Depreciation : | | | |
| Plant and Machinery | 13,500 | | |
| Furniture | 900 | | |
| | 14,400 | | |

Balance Sheet as on December 31, 2018

| Particulars | Amount | Particulars | Amount |
|-------------|--------|----------------------|---------------|
| | Rs. | | Rs. |
| | | Fixed Assets: | |
| | | Plant and Machinery | 1,20,000 |
| | | Add: New Machinery | <u>30,000</u> |
| | | | 1,50,000 |
| | | Less: Depreciation | <u>13,500</u> |
| | | Furniture | 18,000 |
| | | Less: Depreciation | 900 |
| | | | 1,36,500 |
| | | | 17,100 |

| Date (1) | Amount (2) | Months upto December 31 (3) | Product 2 × 3 (4) |
|-------------|---------------|-----------------------------------|-------------------------|
| Feb. 1 | 4,000 | 11 | 44,000 |
| Apr. 1 | 6,000 | 9 | 54,000 |
| Jul. 1 | 3,000 | 6 | 18,000 |
| Oct. 31 | 2,000 | 2 | 4,000 |
| Dec. 31 | 5,000 | 0 | 0 |
| | | | 1,20,000 |

$$\text{Interest on Drawings} = \frac{15}{100} \times 1,20,000 \times \frac{1}{12} = \text{Rs.}1,500$$

Another way of calculating interest on drawings is to calculate it individually on each withdrawal and then add them.

10.3.9 Interest on Loan

If the firm has taken some loan, it has to pay interest thereon. Hence, when we notice a loan Account in the Trial Balance, we must find out whether the full amount of due on loan has been paid or not. The rate of interest and the date on which the loan was taken is usually given. If, however, the date on which loan was taken is not given, it means that it is an old loan and full year's interest has to be provided. In any case, you should calculate the exact amount of interest due and find Out from the Trial Balance whether the same has been paid or not. Generally, you will find that the interest has been paid but it is less than what is due. In such a situation, the difference is regarded as outstanding interest and the same must be adjusted at the time of preparing the final accounts. Suppose there is an item of 10% loan (taken on April 1, 2018) of Rs. 20,000 appearing in the Trial Balance. Assuming the accounting year ends on December 31, the total interest on loan will work out as Rs. 1,500 (at 10% on Rs. 20,000 for nine months). On going through the Trial Balance you find that the interest paid is Rs. 1,000 only. It means Rs. 500 (Rs. 1,500— Rs. 1,000) is the outstanding interest. This must be shown in final accounts accordingly i.e., Rs. 1,500 (Rs. 1,000 + Rs. 500 outstanding) as interest on loan on the debit side of the Profit and Loss Account and Rs. 500 as outstanding Interest under current liabilities in the Balance Sheet.

It is possible that the adjustments given outside the Trial Balance already include this item. But, if they do not even then you have to account for it. This is called an implied adjustment.

Check Your Progress A

1. Fill in the blanks

- i) Every adjustment has a effect.
- ii) Closing stock is shown on the side of the Balance Sheet.

- iii) Prepaid expenses are also called expenses.
 - iv) Income received in advance is for the business.
 - v) is a decrease in the value of a fixed asset due to wear and tear.
 - vi) Interest on Drawings is from the capital in the Balance Sheet.
- 2 State whether the following statements are True or False.
- i) Every adjustment affects either Trading and Profit and Loss Account or the Balance Sheet.
 - ii) Outstanding expense is first added to the relevant expense account and then shown on the liabilities side of the Balance Sheet.
 - iii) Interest on loan is an income for the business.
 - iv) Depreciation is deducted from the relevant fixed asset in the Balance Sheet and Profit and Loss Account
 - v) Proprietor is always entitled to interest on the capital invested.

10.3.10 Bad Debts

Sometimes, a debtor may fail to pay his debt either partially or completely. The amount of debt which cannot be recovered from the debtor is called Bad Debts and it will be a loss to the business. The following journal entry is passed when a debt becomes bad.

| | | |
|---------------|-----|---------------------------|
| Bad Debts A/c | Dr. | |
| | | To Concerned Debtor's A/c |

The effect of this entry will be (i) debtor's personal account stands, closed, and (ii) a new account called 'Bad Debts Account' is opened in the books.

The total amount of bad debts incurred during the year appears as a separate item in the Trial Balance and the sundry debtors appear at the reduced amount. The bad debts like any other expense or loss are charged to the Profit and Loss Account.

Bad Debts given outside the Trial Balance: Sometimes, the bad debts to be written off may be stated outside the Trial Balance as an adjustment item. It means that such bad debts have not yet been written off. In other words, the entry for such bad debts has not been passed. It is necessary to record such bad debts at the time of preparing the final accounts. This is done by passing the following adjustment entry:

| | | |
|-------------------|-----|-------------------|
| Bad Debts Account | Dr. | |
| | | To Sundry Debtors |

Such additional bad debts usually called 'further bad debts' are treated in final accounts as follows:

- i) On the debit side of Profit and Loss Account: shown as addition to bad debts already written off, and
- ii) On the assets side of the Balance Sheet: shown as deduction from Sundry Debtors.

It is important to remember the difference between the treatment of bad debts given inside the Trial Balance and the bad debts given outside the Trial Balance. The bad debts given inside the Trial Balance and also those given outside the Trial Balance will

be shown in the Profit and Loss Account. But only those bad debts will be deducted from Sundry Debtors in the Balance Sheet which are given outside the Trial Balance.

10.3.11 Provision for Bad Debts

In any business where goods are sold on credit, bad debts usually occur. When it is certain that a debt will not be recovered, the amount is written off as bad debt. But, it is also likely that some of the remaining debts may not be recovered in full. From experience we know that certain percentage of amounts due from debtors may not be recovered. This will be a loss to the business. You have learnt that accordingly to 'conservatism concept' all possible losses must be provided for. Hence, it is a common practice to make a suitable provision for doubtful debts at the time of preparing the final accounts. Otherwise, the Profit and Loss Account will not reveal the correct amount of profit or loss and the Balance Sheet will not show the true position of sundry debtors. The Provision for doubtful debts is usually calculated as a certain percentage of the total amount due from sundry debtors after writing of all known bad debts.

Provision for doubtful debts is also called 'Provision for Bad Debts' or 'Provision for Bad and doubtful Debts. Such a provision is made by debiting the amount of doubtful debts to the Profit and Loss Account. Thus, the journal entry for creating such provision will be as follows:

Profit and Loss A/c Dr.
 To Provision for Bad Debts A/c

You will notice that when a debt is irrecoverable it is written off by crediting it to the personal account of the respective customer. But, when a debt is doubtful of recovery, the personal account of the customer will not be credited as the recovery is still possible. Hence, the creation of provision for bad debts does not affect the balance of debtors personal accounts. However, while showing sundry debtors in the Balance Sheet the amount of such provision is subtracted therefrom.

When provision for bad debts already exists in the books, the provision created for doubtful debts at the end of a particular year will be carried forward to the next year and it will be used for meeting the loss due to bad debts incurred during the next year. The provision for bad debts brought forward from the previous year is called 'opening provision' or 'old provision'. When such provision already exists, the loss due to bad debts during the current year will be adjusted against the Same, and while making provision for bad debts required at the end of the current year called 'new provision' the balance of old provision should also be taken into account. Let us take an example and understand how these adjustments are done. Suppose old provision on January 1, 2018 was Rs. 1,000. The bad debts written off during 2018 amounted to Rs.600 and the new provision required on December 31, 2018 is Rs. 1,500. In such a situation, the

Profit and Loss Account will be debited with Rs. 1,100 as calculated below:

| | |
|---|--------------|
| | Rs. |
| Existing Provision for Bad Debts | 1,000 |
| Less: Bad Debts | 600 |
| Surplus provision available | <u>400</u> |
| Provision required at the end of the year | 1,500 |
| Less: Surplus of old provision | <u>400</u> |
| Amount to be debited to Profit and Loss Account | <u>1,100</u> |

The above aspects will be shown on the debit side of the Profit and Loss Account as follows:

Profit and Loss Account of the year ended.....

| Dr. | Rs. | Rs. | Cr. |
|----------------------------|--------------|-------|-----|
| To Provision for Bad Debts | | | |
| Bad Debts | 600 | | |
| Add: New Provision | <u>1,500</u> | | |
| | 2,100 | | |
| Less: Old Provision | <u>1,000</u> | 1,100 | |

If however, the total of new provision and the actual bad debts are less than the old provision, the details will be shown on the credit side of the Profit and Loss Account as follows:

Profit and Loss Account for the year ended.....

| Dr. | Rs. | Rs. | Cr. |
|-----|-----|-----|----------------------------|
| | | | By Provision for Bad Debts |
| | | | Old Provision |
| | | | Less: Bad Debts |
| | | | Less: New Provision |

In this connection you should note the following points.

1. If some bad debts are given in adjustments (further bad debts) they should also be taken into account.
2. The new provision should be calculated on sundry debtors after adjusting the amount of further bad debts.
3. In Balance Sheet only the further bad debts as given in adjustments and the new provision for bad debts should be subtracted from sundry debtors.

The following are the journal entries required when the provision for bad debts exists in the books:

a) Forwriting off further bad debts given outside the Trial Balance:

| | |
|-------------------|-----|
| Bad Debts A/c | Dr. |
| To Sundry Debtors | |

b) For transferring the total bad debts to the provision for Bad DebtsAccount:

| | |
|-----------------------------|-----|
| Provision for Bad debts A/c | Dr. |
| To Bad Debts A/c | |

c) For debiting the Profit and Loss Account with the excess of the new pr' the total bad debts over the old provision:

To Provision for Bad Debts A/c

d) For crediting the Profit and Loss Account with excess of the old provision over the total baddebts plus new provision:

Provision for Bad Debts A/c Dr.

To Profit and Loss A/c

Look at illustration and see how bad debts and provision for bad debts are recorded in the final Accounts.

Illustration

An extract from a Trader's Trial Balance on December 31, 2018 is given below:

| Name of the Account | Dr. | Cr. |
|------------------------|--------|-------|
| | Rs. | Rs. |
| Sundry Debtors | | |
| Bad Debts | 64,000 | |
| Provision of Bad Debts | 4,000 | 7,000 |

Adjustments: Write off further bad debts Rs. 2,000 and create a provision for doubtful debts at 5% on debtors. Pass the necessary journal entries and show Bad Debts and Provision for Bad Debts Accounts. Also show their treatment in the final accounts.

Journal

| | | Rs | Rs. |
|---------|--|-------|-------|
| 2018 | | | |
| Dec. 31 | Bad Debts A/c Dr. To Sundry Debtors (Being bad debts written off) | 2,000 | 2,000 |
| “ 31 | Provision for Bad Debts A/c Dr. To Bad Debts A/c (Being bad debts transferred to Provision for Bad Debts Account) | 6,000 | 6,000 |
| “ 31 | Profit and Loss A/c Dr. To Provision for Bad Debts A/c (Being the Provision required for doubtful debts) | 2,100 | 2,100 |

Bad Debts Account

| 2018 | | Rs. | 2018 | | Rs. |
|---------|-------------------|-------|---------|------------------------|-------|
| Dec. 31 | To Balance b/d | 4,000 | Dec. 31 | By Prov. Fro Bad Debts | 6,000 |
| Dec. 31 | To Sundry Debtors | 2,000 | | | |
| | | 6,000 | | | 6,000 |

Provision for Bad Debts Account

| | | | | | |
|---------|------------------|----------------|---------|------------------------|-------|
| 2018 | | Rs | 2018 | | Rs. |
| Dec. 31 | To Bad Debts A/c | 6,000 | Dec. 31 | By Balance b/d | 7,000 |
| “ | 31 | To Balance c/d | | By Profit and Loss A/c | 2,100 |
| | | 9,100 | 2019 | | 9,100 |
| | | | Jan. 1 | By Balance b/d | 3,100 |

Note : The new provision for bad debts has been calculated at 5% on Rs. 62,000 (sundry debtors Rs. 64,000 – further bad debts Rs. 2,000)

Profit and Loss Account
For the year ended December 31, 2018

| | | | | |
|----------------------------|-------|-------|--|-----|
| | | Rs. | | Rs. |
| To Provision for Bad Debts | | | | |
| Bad Debts | 4,000 | | | |
| Add : Further Bad Debts | 2,000 | | | |
| Add : New Provision | 3,100 | | | |
| | 9,100 | | | |
| Less : Old Provision | 7,000 | 2,100 | | |

Balance Sheet
as at December 31, 2018

| | | | |
|--|-----|----------------------------|--------|
| | Rs. | | Rs. |
| | | Current Assets : | |
| | | Sundry Debtors | 64,000 |
| | | Less : Further Bad Debts | 2,000 |
| | | | 62,000 |
| | | Less : Provision Bad Debts | 3,100 |
| | | | 58,900 |

10.3.12 Provision for Discount on Debtors

You know cash discount is allowed to debtors as an incentive for prompt payment. When the discount is allowed it is recorded through the Cash Book and posted to the credit side of the concerned debtor's personal accounts. But, in the case of debts outstanding at the end of the current year, discounts will be allowed in the next year if the debtors make prompt payments. So, as in the case of anticipated loss on account of doubtful debts, a provision must be made for the discount likely to be allowed to the debtors in the next year, such a provision is known as the 'Provision for Discount on Debtors' it is also calculated as a percentage on the net sundry debtors (remaining after subtracting the provision for bad debts and further bad debts). For example, if Sundry Debtors amount to Rs. 40,000 and the firm wants to create a provision for bad debts at 5% and a provision for discount at 2% on the debtors they will be calculated as follows:

- i) The Provision for bad debts will be calculated at 5% on Rs. 40,000. It will amount to Rs. 2,000.

- ii) The Provision for discount at 2% will be calculated on the debtors after subtracting the provision for bad debts i.e., on Rs. 38,000 (Rs. 40,000—Rs. 2,000). It will amount to Rs. 760.

Note that when both provision for bad debts and provision for discount on debtors are to be calculated, the provision for bad debts is calculated first and then provision for discount is worked out on debtors after subtracting the provision for bad debts.

The adjustment entry for provision for discount on debtors is as follows:

| | |
|--|-----|
| Profit and Loss A/c | Dr. |
| To Provision for Discount on Debtors A/c | |
| (Being the Provision made for discount on debtors) | |

The Provision for discount on debtors will be shown in the final accounts as follows:

- i) On the debit side of Profit and Loss Account: shown as a separate item, and
- ii) On the assets side of Balance Sheet: shown as a deduction from Sundry Debtors.

The balance of the provision for Discount on Debtors Account will be carried forward to the next year and the discounts allowed if any, in the next year will be set off against the provision for itself. The method of dealing with discounts allowed and provision for discount on debtors in the next year is similar, to the method followed in case of bad debts and provision for bad debts.

10.3.13 Provision for Discount on Creditors

When prompt payment is received we allow cash discount to debtors. Similarly, we receive discount from the creditors when prompt payments are made by us. So the expected gain on account of discounts receivable from creditors in the next year should also be taken into account at the time of preparing the final accounts. Such a provision is called 'Provision for Discount on Creditors'.

It is calculated as a percentage on Sundry Creditors. The creation of such a provision, however, goes against the Conservatism Concept. Hence, it is usually avoided in practice. But you must learn how it is treated in final accounts if such a provision is required.

The adjustment entry for provision for discount on creditors is passed as follows:

| | |
|--|-----|
| Provision for Discount on Creditors A/c | Dr. |
| To Profit and Loss Account | |
| (Being the Provision made for discount on creditors) | |

The provision for discount on creditors will appear in the final accounts as follows:

- i) On the credit side of Profit and Loss Account: shown as a separate item, and
- ii) On the liabilities side of the Balance Sheet: shown as a deduction from Sundry Creditors.

The balance of the Provision for Discount on Creditors Account will also be carried forward to the next year and the discount received, if any, will be adjusted against the provision itself.

10.3.14 Manager's Commission

Sometimes, the manager may also be entitled to a commission on profits earned by the business. Such commission is usually calculated as a fixed percentage on profits. Suppose

the Net Profit of a firm after taking into consideration all expenses except the manager's commission is Rs. 60,000 and the manager is entitled to a commission of 5% on profits before charging such commission. His commission will work out as Rs. 3,000. However, it is still to be paid and therefore should be treated as an outstanding expense. It will be debited to Profit and Loss Account and also shown as a current liability in the Balance Sheet.

In the above example, manager's commission has been calculated on profits before charging the commission. But, sometimes, it is to be calculated on profit after charging such commission. In such a situation, the commission will be calculated by the following formula:

Percentage of Commission

$$\frac{\text{Percentage of Commission}}{100 + \text{Percentage of Commission}} \times \text{Net Profit before Commission}$$

If, in the above example, the manager's commission were to be calculated on profits after charging such commission, it will be as follows.

$$\frac{5}{100+5} \times 60,000 = \frac{5}{105} \times 60,000 = \text{Rs. } 2,857$$

The above amount can also be verified. After charging manager's commission the Net Profit will work out to Rs. 57,143 (Rs. 60,000—Rs. 2,857). Now calculate 5% on Rs. 57,143. It works out to Rs. 2,857 which means the amount of commission calculated by the given formula is correct.

10.3.15 Abnormal Loss of Stock

In the course of business some loss of stock may also occur. It may occur in transit or at the godown. Such loss of stock may be normal or abnormal. Normal loss is due to inherent characteristics of goods such as evaporation, subdivision, drying up of goods, etc. On the other hand, if the loss occurs on account of reasons which are accidental or very rare, the loss is termed as abnormal loss. The examples of such losses are theft of goods, destruction of goods by fire, etc.

The abnormal loss does not require any special treatment in the books of account. It is absorbed by the remaining units whose cost is inflated by such loss. But, the abnormal loss has to be shown separately in the books of account. After the amount of such loss is ascertained, the following adjustment entry is passed.

| | |
|----------------------------|-----|
| Loss by Fire A/c | Dr. |
| To Trading Account | |
| (Being stock lost by fire) | |

To avoid the burden of loss due to abnormal circumstances the businessmen may get the stock insured. Thus, the loss may be

1. Uninsured,
2. Fully insured, or
3. Partially insured.

| | | | | |
|------|---------------------|-----|--------|--------|
| “ 31 | Insurance Company | Dr. | 30,000 | |
| | Profit and Loss A/c | Dr. | 10,000 | |
| | To Lossby Fire A/c | | | 40,000 |

**Trading Account
For the year ended December 31, 2018**

| | | | |
|-----|--|-----------------|---------------|
| Dr. | | | Cr. |
| | | By Loss of Fire | Rs. 40,000 |

**Profit and Loss Account
For the year ending December 31, 2018**

| | | | |
|-----------------------|--------|--------|-----|
| Dr. | | | Cr. |
| To Loss by fire | 40,000 | Rs. | Rs. |
| Less: Insurance claim | 30,000 | 10,000 | |

**Balance Sheet
As at December 31, 2018**

For the year ending December 31, 2018

| | | | |
|-----|--|--|---------------|
| Dr. | | | Cr. |
| | | Current Assets: Claim due from insurance company | Rs. 30,000 |

10.3.16 Drawing of Goods by the Proprietor

You know when the proprietor takes away some goods from the business for his personal use it is recorded in books of account by passing the following journal entry.

| | |
|----------------------|-----|
| Drawings Account | Dr. |
| To Purchases Account | |

So, if you find that it has not been recorded in the books of account, you have to make the necessary adjustment in final accounts. The treatment in final accounts will be as follows:

- i) On the Debit side of the Trading Account: Deduct it from Purchases.
- ii) On the Liabilities side of the Balance Sheet: Deduct it from capital either as a separate item or by including it in drawings.

Check Your Progress B

1. Why do you create a provision for bad debts?

.....

.....

.....

2. Why provision for discount on creditors is regarded against the Conservatism Concept?

.....

.....

.....

3. The Trial Balance shows the following balances.

| | Rs. |
|-------------------------|--------|
| Debtors | 20,000 |
| Bad Debts | 100 |
| Provision for had Debts | 200 |

Adjustments:

- a) Bad Debts of Rs. 200 not yet written off.
- b) Create a provision for Doubtful Debts at 5% on Debtors
- c) Discount on Debtors is to be provided at 2%.

Calculate the provision for Bad Debts and provision for Discount on Debtors.

4. Stock worth Rs. 20,000 was lost by fire. Insurance claim was admitted for three-fourth of the value of goods lost. What amount you will (i) credit to the Trading A/c, (ii) debit to the Profit & Loss A/c, and (iii) show on the asset side of the Balance Sheet.

10.4 PREPARATION OF FINAL ACCOUNTS WITH ADJUSTMENTS

You know there are various items which require adjustment at the time of preparing the final accounts. You have learnt how each adjustment is recorded in books through a journal entry and how it is reflected in the final accounts. However, while preparing the final accounts with adjustments you should remember that there is no need to pass the journal entries for any adjustment unless specifically asked to do so. All adjustments must be shown directly in the final accounts. Look at illustrations and see how final accounts are prepared with adjustments.

Illustration

From the following Trial Balance of Gupta & Sons, prepare Trading and Profit and Loss Account for the year ended December 31, 2018 and a Balance Sheet as on that date.

Trial Balance

| Name of the Account | Debit Balances | Credit Balances |
|---------------------|----------------|-----------------|
| | Rs. | Rs. |
| Capital | | 5,00,000 |
| Sales | | 10,00,000 |
| Sales Returns | 25,000 | |

Final Accounts

| | | |
|----------------------------|-----------|-----------|
| Purchases | 5,00,000 | |
| Purchases Returns | | 15,000 |
| Inventory as on 1.1.18 | 60,000 | |
| Land & Buildings | 4,00,000 | |
| Plant & Machinery | 3,00,000 | |
| Furniture | 1,00,000 | |
| Wages | 50,000 | - |
| Carriage Inwards | 10,000 | |
| Provision for Bad Debts | | 7,000 |
| Carriage Outwards | 5,000 | |
| Cartage | 5,000 | |
| Salaries | 40,000 | |
| Loan | | 2,60,000 |
| Debtors | 1,50,000 | |
| Creditors | | 70,000 |
| Rent | | 8,000 |
| Bills Receivable | 40,000 | |
| Acceptances | | 10,000 |
| General Expenses | 20,000 | |
| Rent & Rates | 10,000 | |
| Investments | 50,000 | |
| Cash in hand | 50,000 | |
| Bank Overdraft | | 10,000 |
| Discount | 4,500 | |
| Bad Debts | 5,000 | - |
| Interest on Investments | | 5,000 |
| Interest on Bank Overdraft | 500 | |
| Goodwill | 60,000 | |
| Total | 18,85,000 | 18,85,000 |

Additional Information

1. The value of inventory on December 31, 2018 was Rs. 1,00,000.
2. Depreciation is to be provided on: Land & Building @ 5% p.a. Furniture @ 10% p.a. Plant & Machinery Rs. 50,000.
3. Provision for Bad Debts is to be maintained @ 5% on debtors.
4. Wages are outstanding to the extent of Rs. 4,000 and Salaries to the extent of Rs. 3,000.
5. Rent and Rates are prepaid to the extent of 1/4th of the amount paid.
6. Interest on Investment outstanding is Rs. 1,000.
7. Rent to the extent of Rs. 2,000 has been received in advance.

**Trading & Profit and Loss Account
for the year ended December 31, 2018**

| Dr. | | Cr. | |
|--|------------------|-----------------------------|------------------|
| Particulars | Amount | Particulars | Amount |
| | Rs. | | Rs. |
| To Inventory as on 1.1.18 | 60,000 | | |
| To Purchases | 5,00,000 | By Sales | 10,00,000 |
| Less: Purchases Returns | <u>15,000</u> | Less: Sales Returns | <u>25,000</u> |
| | 4,85,000 | | 9,75,000 |
| To Wages | 50,000 | By Inventory as on 31.12.18 | 1,00,000 |
| Add: Wages Outstanding | <u>4,000</u> | | |
| | 54,000 | | |
| To Carriage Inwards | 10,000 | | |
| To Cartage | 5,000 | | |
| To Gross Profit c/d | <u>4,61,000</u> | | |
| | <u>10,75,000</u> | | <u>10,75,000</u> |
| To Carriage Outwards | 5,000 | By Gross Profit b/d | 4,61,000 |
| To Salaries | 40,000 | By Rent | 8,000 |
| Add: Outstanding | <u>3,000</u> | Less: Received in advance | <u>2,000</u> |
| | 43,000 | | 6,000 |
| To General Expenses | 20,000 | By Interest on Investment | 5,000 |
| | | Add: Outstanding | <u>1,000</u> |
| To Rent & Rates | 10,000 | | 6,000 |
| Less: Prepaid | <u>2,500</u> | | |
| | 7,500 | | |
| To Discount Allowed | 4,500 | | |
| To Bad Debts | 5,000 | | |
| Add: New Provision | <u>7,500</u> | | |
| | 12,500 | | |
| Less: Old Provision | <u>7,000</u> | | |
| | 5,500 | | |
| To Depreciation on Plant & Machinery | 50,000 | | |
| To Interest on Overdraft | 500 | | |
| To Depreciation | | | |
| Land & Building | 20,000 | | |
| Furniture | <u>10,000</u> | | |
| | 30,000 | | |
| To Net Profit (Transferred to Capital A/c) | 3,07,000 | | |
| | <u>4,73,000</u> | | <u>4,73,000</u> |
| Balance Sheet as on December 31, 2018 | | | |

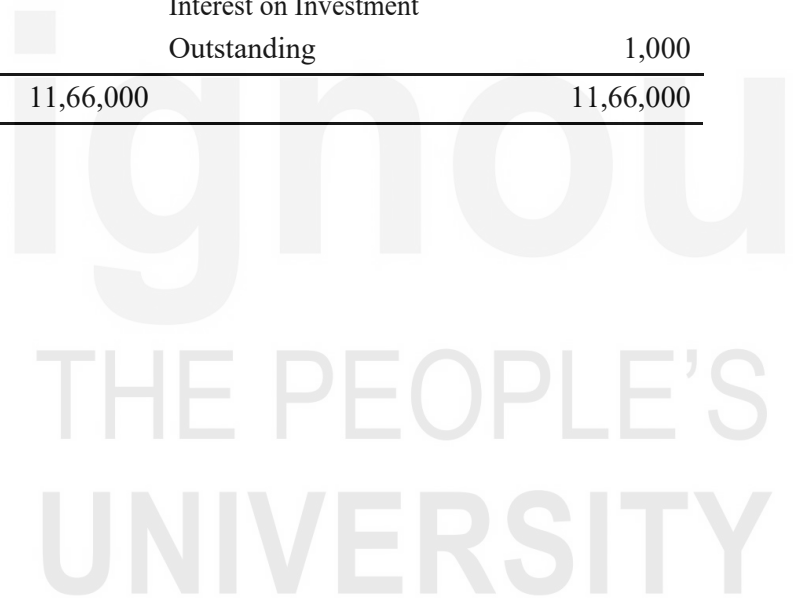
| Liabilities | | Assets | |
|-----------------------|-----------------|---------------------|---------------|
| | Amount | | Amount |
| | Rs. | | Rs. |
| Capital | | Fixed Assets | |
| Balance | 5,00,000 | Goodwill | 60,000 |
| Add: Net Profit | <u>3,07,000</u> | Land & Building | 4,00,000 |
| | 8,07,000 | Less: Depreciation | <u>20,000</u> |
| | | | 3,80,000 |
| Final Accounts | | | |

Long Term Liabilities

| | | | | |
|------|----------|--------------------|----------|----------|
| Loan | 2,60,000 | Plant & Machinery | 3,00,000 | |
| | | Less: Depreciation | 50,000 | 2,50,000 |

Current Liabilities

| | | | | |
|--------------------------|-----------|------------------------|---------------|-----------|
| Creditors | 70,000 | Furniture | 1,00,000 | |
| Acceptances | 10,000 | Less: Depreciation | <u>10,000</u> | 90,000 |
| Bank Overdraft | 10,000 | Investments | | |
| Wages Outstanding | 4,000 | Current Assets | | |
| Salaries Outstanding | 3,000 | Cash in hand | | 50,000 |
| Rent Received in Advance | 2,000 | Debtors | 1,50,000 | |
| | | Less: Provision for | | |
| | | Bad Debts | <u>7,500</u> | 1,42,500 |
| | | Bills Receivable | | 40,000 |
| | | Closing Stock | | 1,00,000 |
| | | Prepaid Rent & Rates | | 2,500 |
| | | Interest on Investment | | |
| | | Outstanding | | 1,000 |
| | <hr/> | | | |
| | 11,66,000 | | | 11,66,000 |
| | <hr/> | | | |



10.5 ADJUSTMENTS GIVEN IN TRIAL BALANCE

You know that the adjustments are usually given outside the Trial Balance and they are shown at two places in the final accounts. But, sometimes a few adjustment items appear in the Trial Balance itself. It is possible that items like outstanding or prepaid insurance also appear in the Trial Balance. This happens when the journal entry in respect of an adjustment has already been passed and the same has been posted into the concerned ledger accounts. For example, when you pass journal entry for the adjustment for outstanding salaries, you will debit Salaries Account and credit Salaries Outstanding Account. The Salaries Account already exists in the ledger and the amount of outstanding salaries is also posted thereto. This leads to an increased balance in Salaries Account. But the Salaries Outstanding Account does not exist in the ledger. This will have to be opened and the outstanding amount credited there to. When the Trial Balance is prepared, it will show the increased balance of Salaries Account in the debit balances column and the balance of Salaries Outstanding Account in the credit balances column. Now the question arises how to treat it in the final accounts. In such a situation, you will simply show Salaries Outstanding in the liabilities. No addition will be made to salaries in the Profit and Loss Account because salaries given in Trial Balance already include this amount. Thus, when salaries outstanding appear in the Trial Balance it is shown in final accounts only at one place. This applies to all items of adjustments when they are included in the Trial Balance.

In actual practice all adjustment items with the exception of closing stock are invariably incorporated in the Trial Balance before preparing the final accounts. The Trial Balance so prepared is called 'Final Trial Balance' or 'Adjusted Trial Balance'.

Look at Chart 10.1 and note how each item of adjustment is treated in final accounts.

(i) if it is given outside the Trial Balance, and (ii) if it appears in the Trial Balance itself.

Chart 10.1

Treatment of Adjustment Items in Final Accounts

| S.No. | Item | Treatment In Final Accounts | |
|-------|----------------------|--|---|
| | | If given in Adjustments | If given in Trial Balance |
| 1. | Closing Stock | i) Credit side of Trading A/c : Shown as a separate item ii) Assets side of Balance Sheet : Shown as a separate item under Current Assets | Assets side of Balance Sheet only |
| 2 | Outstanding Expenses | i) Debit side of Trading A/c or Profit and Loss A/c: Added to the concerned expense ii) Liabilities side of Balance Sheet. Shown as a separate item under Current Liabilities | Liabilities side of Balance Sheet only. |

Final Accounts

| | | | |
|-----|----------------------------|--|--|
| 3. | Prepaid Expenses | <ul style="list-style-type: none"> i) Debit side of Profit and Loss A/c: Deducted from the concerned expense ii) Assets side of Balance Sheet: Shown as a separate item under Current Assets | Assets side of Balance Sheet only. |
| 4. | Outstanding incomes | <ul style="list-style-type: none"> i) Credit side of Profit and Loss A/c: Added to the concerned income ii) Asset side of Balance Sheet: Shown as a separate item under Current Assets | Assets side of Balance Sheet only. |
| 5. | Income Received in Advance | <ul style="list-style-type: none"> i) Credit side of Profit and Loss A/c: Deducted from concerned income ii) Liabilities side of Balance Sheet. Shown as a separate item under Current Liabilities | Liabilities side of Balance Sheet only. |
| 6. | Depreciation | <ul style="list-style-type: none"> i) Debit side of Profit and Loss A/c: Shown as a separate item ii) Assets side of Balance Sheet: Deducted from the concerned fixed asset | Debit side of Trading & Profit and Loss Account only. |
| 7. | Interest on Capital | <ul style="list-style-type: none"> i) Debit side of Profit and Loss A/c: Shown as a separate item ii) Liabilities side of Balance Sheet: Added to Capital | Debit side of Profit and Loss Account only. |
| 8. | Interest on Drawings | <ul style="list-style-type: none"> i) Credit side of Profit and Loss A/c: Shown as a separate item ii) Liabilities side of Balance Sheet: Deducted from Capital | Credit side of Profit and Loss Account only. |
| 9. | Interest on Loan | <ul style="list-style-type: none"> i) Debit side of Profit and Loss A/c: Shown as a separate item ii) Liabilities side of Balance Sheet: Added to Loan. | Debit side of Profit and Loss Account only. |
| 10. | Bad Debts | <ul style="list-style-type: none"> i) Debit side of Profit and Loss A/c: Added to Bad Debts ii) Assets side of Balance Sheet: Deducted from Sundry Debtors | Debit side of Profit and Loss Account only. |
| 11. | Provision for bad debts | <ul style="list-style-type: none"> i) Debit side of Profit and Loss A/c: shown as a separate item ii) Assets side of Balance Sheet: Deducted from Sundry Debtors | Deduct from sundry debtors assuming it is a closing balance. |

| | | | |
|-----|-------------------------------------|--|--|
| 12. | Provision for Discount on Debtors | i) Debit side of Profit and Loss A/c: Shown as a separate item ii) Assets side of Balance Sheet: Deducted from Sundry Debtors | Debit side of Profit and Loss Account only. |
| 13. | Provision for Discount on Creditors | i) Credit side of Profit and Loss A/c: Shown as a separate item ii) Liabilities side of Balance Sheet: Deducted from Sundry Creditors | Credit side of Profit and Loss Account only. |
| 14. | Manager's Commission | i) Debit side of Profit and Loss A/c: Shown as a separate item ii) Liabilities side of Balance Sheet: Shown as a separate item | Liabilities side of Balance Sheet only. |
| 15. | Abnormal Loss | i) Credit side of Trading A/c: Shown as a separate item with full amount of loss ii) Debit Profit & Loss A/c with the uncovered Loss iii) Insurance claim will be shown on Assets side of Balance Sheet under Current Assets | Debit side of Profit and Loss Account only. |
| 16. | Drawing of Goods by the Proprietor | i) Debit side of Trading A/c: Deducted from purchases ii) Liabilities side of Balance Sheet: Deducted from capital | Deduct from Capital. |

Illustration

From the following Trial Balance of Pitam Stores prepare Trading and profit and Loss Account for the year ended December 31, 2018 and the Balance Sheet as on that date.

Trial Balance

| Account | Debit Balances | | Credit Balances | |
|-------------------|----------------|----------|-----------------|----------|
| | | Rs. | | Rs. |
| Capital | | | | 60,000 |
| Drawings | | 5,000 | | |
| Purchases | | 1,00,000 | | |
| Sales | | | | 2,10,000 |
| Opening Stock | | 20,000 | | |
| Wages | | 15,000 | | |
| Wages Outstanding | | | | 5,000 |
| Carriage Inwards | | 2,000 | | |
| Salaries | | 13,000 | | |
| Insurance | | 1,500 | | |

Final Accounts

| | | |
|---------------------------------|-----------------|-----------------|
| Insurance Prepaid | 1,500 | |
| Income from Investments | | 30,000 |
| Accrued Income from Investments | 10,000 | |
| Machinery | 50,000 | |
| Buildings | 95,000 | |
| Cash in hand | 2,000 | |
| Debtors | 35,000 | |
| Creditors | | 60,000 |
| Depreciation on Buildings | 5,000 | |
| Rent | 10,000 | |
| | <u>3,65,000</u> | <u>3,65,000</u> |

Additional Information : The value of stock on December 31, 2018 was Rs. 40,000.

Solution:**Trading and Profit and Loss Account for the year ended December 31, 2018**

| Particulars | Amount | Particulars | Amount |
|---|-----------------|---------------------|-----------------|
| | Rs. | | Rs. |
| To Opening Stock | 20,000 | By Sales | 2,10,000 |
| To Purchases | 1,00,000 | By Closing Stock | 40,000 |
| To Wages | 15,000 | | |
| To Carriage Inwards | 2,000 | | |
| To Gross Profit c/d | <u>1,13,000</u> | | |
| | <u>2,50,000</u> | | <u>2,50,000</u> |
| To Salaries | 13,000 | By Gross Profit b/d | 1,13,000 |
| To Insurance | 1,500 | By Income from | |
| To Rent | 10,000 | Investments | 30,000 |
| To Depreciation on Building | 5,000 | | |
| To Net Profit (Transferred to Capital A/c) | 1,13,500 | | |
| | <u>1,43,000</u> | | <u>1,43,000</u> |

| Dr | | Cr. | |
|-------------------|-----------------|------------------------------------|----------|
| Liabilities | Amount | Assets | Amount |
| | Rs. | | Rs. |
| Capital | 60,000 | Building | 95,000 |
| Add: Net Profit | <u>1,13,500</u> | Machinery | 50,000 |
| | 1,73,500 | Closing Stock | 40,000 |
| Less: Drawings | <u>5,000</u> | Debtors | 35,000 |
| | 1,68,500 | Cash in Hand | 2,000 |
| Creditors | 60,000 | Insurance Prepaid | 1,500 |
| Wages Outstanding | 5,000 | Accrued Income from Investments | 10,000 |
| | 2,33,500 | | 2,33,500 |

10.6 LET US SUM UP

At the time of preparing the final accounts a number of items need adjustments. It is because certain expenses may relate to two or more accounting years or certain expenses incurred during the current year may still remain to be paid. Unless Such adjustments are made, the final accounts will not reveal the true picture. Such items are usually given outside the Trial Balance and are shown at two places in the final accounts so as to complete the double entry.

Adjustment entries can be passed in the journal for each item of adjustment. But, normally they are directly adjusted in the final accounts. In practice the adjustment entries are always passed for such items and a revised Trial Balance called 'Adjusted Trial Balance' or 'Final Trial Balance' is prepared. In such a situation, the adjustments will appear in the Trial Balance itself. Any item of adjustment which appears in the Trial Balance is shown only at one place in the final accounts.

10.7 KEY WORDS

Abnormal Loss: Loss caused by abnormal causes.

Adjustment Entry: Journal entry passed to make an adjustment in the relevant accounts.

Adjustment Item: An item given outside the Trial Balance which requires adjustment at the time of preparing final accounts.

Adjusted Purchases: Amount of purchases after adjusting both the opening and closing stocks.

Adjusted Trial Balance: Trial balance prepared after incorporating various adjustments.

Depreciation: A permanent decrease in the value of a fixed asset caused by wear and tear or the passage of time.

Doubtful Debts: Debts of doubtful recovery.

Outstanding Expenses: Expenses incurred during the accounting year but not yet paid.

Outstanding Incomes: Incomes earned during the accounting year but not yet received.

Prepaid Expenses: Expenses paid but the benefit of which is yet to be received.

Unearned Income: Income in respect of which the services are yet to be rendered

10.8 SOME USEFUL BOOKS

Maheshwari, S.N., 2018. Introduction to Accounting, Vikas Publishing House: New Delhi.

Patil, V.A. and J.S. Korlahalli, 2018. Principles and Practice of Accounting, R. Chand & Co., New Delhi.

William Pickles. 1992. Accountancy, E.L.B.S. and Pitman, London.

Gupta, R.L. and M. Radhaswamy, 2018. Advanced Accountancy, Sultan Chand & Sons, New Delhi.

Shukla, M.C. and T.S. Grewal, 2018. Advanced Accountancy, S. Chand & Co., New Delhi.

10.9 ANSWERS TO CHECK YOUR PROGRESS

- A
1. i) dual ii) asset iii) unexpired iv) liability v) Depreciation vi) subtracted
 2. i) False ii) True iii) False iv) True v) False
- B
3. Provision for Bad Debts Rs. 990
Provision for Discount on Debtors Rs. 376.20
 4. i) Rs. 20,000 ii) Rs. 5,000 iii) Rs. 15,000

10.10 TERMINAL QUESTIONS/EXERCISES

Questions

1. Why some adjustments become necessary at the time of preparing the final accounts? Name any two items of adjustment and explain how they are shown in the final accounts?
2. Distinguish between:
 - a) Outstanding Expenses and Unexpired Expenses
 - b) Provision for Discount on Debtors and Provision for Discount on Creditors
 - c) Normal Loss and Abnormal Loss

Exercises

1. Give journal entries for the following adjustments:

| | |
|--|-----------|
| i) Interest received in advance | Rs. 600 |
| ii) Interest on drawings | Rs. 1,200 |
| iii) Provision for discount on creditors | Rs. 200 |
| iv) Loss of goods by theft | Rs. 8,500 |
| v) Drawings of goods by the proprietor | Rs. 750 |

2. The following information is extracted from the books of a businessman:

| | |
|--------------------------|------------|
| Debtors as on 31.12.2018 | Rs. 25,000 |
| Bad Debts during 2018 | Rs. 1,000 |

Provision for Bad Debts is to be maintained at 5% of debtors.

A Provision for discount on debtors is also to be made at 2%. You are required to calculate the amounts to be set aside in respect of provision for bad debts and provision for discount on debtors respectively.

(Answer: Provision for Bad Debts Rs. 1,250; Provision for Discount on Debtors Rs. 475)

3. The Proprietor withdrew the following amounts during the year ended

| | |
|--------------------|-------|
| December 31, 2018. | Rs. |
| Feb. 28 | 4,000 |
| May 1 | 6,000 |
| Aug. 31 | 5,000 |
| Nov. 1 | 2,000 |
| Dec. 1 | 1,000 |

Calculate interest on drawings if the rate is 6% per annum.

(Answer: Rs. 565)

4. From the following Trial Balance of Puri & Sons as on June 30, 2018, prepare Trading and Profit and Loss Account and the Balance Sheet.

Trial Balance

| Name at the Account | Debit | Credit |
|------------------------|----------|----------|
| | Rs. | Rs. |
| Capital | | 1,00,000 |
| Drawings | 5,000 | |
| Purchases less returns | 2,00,000 | |
| Sales less Returns | | 5,00,000 |
| Inventory (beginning) | 50,000 | |
| Wages | 20,000 | |
| Carriage Inwards | 3,000 | |
| Salaries | 25,000 | |
| Freight | 2,000 | |
| Trade Expenses | 5,000 | |
| Rent | | 20,000 |
| Packing Charges | 2,000 | |
| Land & Buildings | 2,00,000 | |
| Plant & Machinery | 2,50,000 | |

| | | |
|------------------------|-----------------|-----------------|
| Furniture | 50,000 | |
| Bad Debts | 5,000 | |
| Debtors | 75,000 | |
| Creditors | | 80,000 |
| Cash in hand & at bank | 5,000 | |
| Bills Receivable | 3,000 | |
| Loan | 2,00,000 | |
| Total | 9,00,000 | 9,00,000 |

Additional Information :

- i) Inventory (ending): Rs.. 30,000.
- ii) Depreciation is to be provided as follows: Land&building @ 5%p.a.
Plant & Machinery @ 4% p.a. Furniture @ 10% p.a.
- iii) Debtors are bad to the extent of Rs. 5,000
- iv) Salaries are outstanding to the extent of Rs. 5,000.
- v) Wages are prepaid to the extent of Rs. 2,000.
- vi) Rent received in advance Rs. 3,000.

(Answer: Gross Profit Rs. 2,57,000; Net Profit Rs. 2,02,000; Balance Sheet total Rs. 5,85,000)



UNIT 11 INTRODUCTION TO COMPUTERISED ACCOUNTING AND CREATION OF COMPANY

Structure

Objectives

Introduction to Computerised Accounting

Difference between Manual and Computerised Accounting System

Advantages and Disadvantages of Computerised Accounting System

Consideration while Choosing Accounting Software

Accounting Software in India

Introduction to Tally ERP.9

About Tally Software

How to Start Tally ERP.9

Components of Tally

Creation of a Company

Procedures of Creating a Company

Selecting a Company

Alteration of Details of a Company

Deletion of a Company

Shutting of a Company

Features and Configurations

Features

Accounting Features

Inventory Features

Statutory and Taxation Features

Configurations

Shutting Tally ERP.9

Keyboard Conventions

Let Us Sum Up

Key Words

Answers to Check Your Progress

Terminal Questions/Exercises

OBJECTIVES

After studying this unit, you will be able to:

- define computerised accounting system
- distinguish between manual and computerised accounting system;
- highlight advantages and disadvantages of computerised accounting system;

Computerised Accounting

- describe Tally ERP.9 system;
- identify various components of Tally ERP.9;
- set, alter, delete and shut a company under Tally ERP.9; and
- understand the features and configuration option in Tally ERP.9

INTRODUCTION

An accounting system is a collection of processes, procedures and controls designed to collect, record, classify and summarize financial data for interpretation and management decision-making. Whether the accounting system is simple or complex, it must meet certain objectives to keep the business running smoothly. It is difficult to make informed business decisions without accurate accounting information that helps the managers to see where the business is, where it has been and (based upon trends) foresee where it is headed. Thus, an accounting system should be devised as an effective tool that provides information which is easy to understand.

While some firms still do their book-keeping by hand, most firms generally have too many transactions to sustain a manual accounting system. The more complicated the financial activities of a business are, the more likely it will need a computerized accounting system to ensure effective financial reporting. Computerized accounting systems involve making use of computers and accounting software to record, store and analyze financial data. These are software programs that are stored on a company's computer, a network server, or remotely accessible via Internet.

Computerized Accounting represents a technological advancement in the field of business accounting which allows the user(s) to set up income and expense accounts, such as rental or sales income, salaries, advertising expenses, and material costs. They also can be used to manage bank accounts, to pay bills, and prepare budgets. Also, depending upon the program, some accounting systems also allow users to prepare tax documents, handle payroll, and manage project costing.

DIFFERENCE BETWEEN MANUAL AND COMPUTERISED ACCOUNTING SYSTEM

Owners and other stakeholders of any business, whether large or small, want to know whether the business is making a profit or not. Many small businesses do their accounting manually and they are happy with this setup. Others may be considering using a computerized system, since accounting software is also affordable these days. Manual and computerized accounting systems perform basically the same processes; the accounting principles and concepts are the same with differences lying in the mechanics of the process. Let us now see the difference between these two:

Speed

The main difference between manual and computerized systems is speed. Accounting software processes data and creates reports much faster than manual systems. Calculations are done automatically in software programs, minimizing

errors and increasing efficiency. Once data is fed into the system, one can create reports literally by pressing a button in a computerized system.

Cost

Another difference between manual and computerized systems is cost. Manual accounting with paper and pencil is much cheaper than a computerized system, which requires a machine and software. Other expenses associated with accounting software include training and program maintenance. Expenses can add up fast with costs for printers, paper, ink and other supplies. However, manual accounting requires more staff. Therefore, more expenditure on salaries/wages in case of manual accounting.

Backup

A third difference between manual and computerized systems is the ease of backup of a computerized system. All transactions can be saved and backed up, in case of fire or other mishap. You cannot do this with paper records, unless you make copies of all pages – a long and inefficient process.

The following table makes a further attempt to explain the difference between the manual and computerized accounting systems:

| BASIS | MANUAL ACCOUNTING | COMPUTERIZED ACCOUNTING |
|------------------------------|--|--|
| 1. Definition | Manual accounting is the system in which we keep physical register of journal and ledger for keeping the records of each transaction. | In this system of accounting, we make use of a computer and different accounting software for maintaining a digital record of every transaction. |
| 2. Ledger Accounts | We check the journal and then we transfer figures to related accounts debit or credit side by manually posting it. | Computerized Accounting System will automatically process the system and will make all the accounts' ledgers since the voucher entries under its respective ledger account have already been passed. |
| 3. Trial Balance | We collect the information of all the balances of all accounts in our ledger, and on this basis we manually prepare the trial balance. | The computerized accounting system will automatically produce the Trial Balance. |
| 4. Adjustment Entries Record | Both, the adjustment journal entries and its posting in the ledger accounts will be done manually, one after another. | Only adjustment entries will be passed in the computerized accounting software, these will then be automatically posted to respective ledger accounts. |

ADVANTAGES AND DISADVANTAGES OF COMPUTERISED ACCOUNTING SYSTEM

Advantages of Computerized Accounting

There are many advantages of computerized Accounting System. Let us discuss few of them in detail.

1. **Automation:** As all the calculations are handled by the software, computerized accounting eliminates many of the mundane and time-consuming processes associated with manual accounting. For example, once issued, invoices are processed automatically thus saving time.
2. **Accuracy:** This accounting system is designed to be accurate to the minutest detail. Once the data is entered into the system, all the calculations, including additions and subtractions, are done automatically by software.
3. **Data Access:** Using accounting software, it becomes much easier for different individuals to access accounting data outside the office, securely. This is particularly true if an online accounting solution is being used.
4. **Easy representation of data in various formats:** Viewing the accounts using a computer allows the users to take advantage of the option to view the data in different formats i.e. one can view data in tables and using different types of charts.
5. **Reliability:** Since the calculations are very accurate, the financial statements prepared by computers are highly reliable.
6. **Scalable:** When a company grows, the number of transactions entered into the system increases, as a result of which the need for accounting not only increases but also becomes more complex. With computerized accounting, everything is kept straight forward because shifting data using software is easier than sifting through a bunch of papers.
7. **Speed:** Using accounting software, the entire process of preparing accounts becomes faster. Furthermore, statements and reports can be generated instantly at the click of a button. Managers do not have to wait for hours, even days, to lay their hands on an important report.
8. **Security:** The latest data can be saved and stored in offsite locations so it is safe from natural and man-made disasters like earthquakes, fires, floods and terrorist attacks. In case of disasters, the system can be quickly restored on other computers. This level of precaution is taken by Computerized Accounting.
9. **Cost-effective:** Since using computerized accounting is more efficient than paper-based accounting, than naturally, work will be done faster and time will be saved.

Disadvantages of Computerized Accounting

Computerized Accounting suffers from many limitations. Let us discuss those limitations one by one.

Cost of Software: In case of computerized accounting, you must buy the software. Some software requires you to purchase upgrades or updates for additional features. You must also ensure your computer is capable of running the software. If not, you'll need to upgrade your computer as well.

Most accounting software requires you to have additional software in order to view reports. For instance, some programs allow you to export data as a PDF file or an Excel spreadsheet. This allows users without the accounting program to view the data. However, the viewing software may pose an additional expense to the user.

2. **Reliance on Computers:** If your computer crashes or data is corrupted by a virus, you won't be able to use your accounting software until the problem is fixed. This also means you won't have access to any entered data until the computer is running again. Your data can also be corrupted. It means you will have to re-enter information unless you've backed up your files. In addition, if there's a power failure, your software will be unusable unless you're on a battery-powered laptop.
3. **Fraud:** Accounting software data requires extra levels of security to prevent fraud and embezzlement. Software makes it easier for users to alter data, making fraud easier to accomplish. As a result, there is an increased need for internal auditors to check for any data inaccuracies. Security measures must also be taken to limit the amount of control users have over any accounting software's features.
4. **Human Error:** While it is easy to write down numbers incorrectly, it is even easier to mistype a number. Entering data into accounting software too quickly may result in serious errors. With the program performing calculations, it can be more difficult to trace the cause of the problem. Spreadsheets, digital ledgers or written ledgers make tracking simpler and faster.
5. **Training:** Accounting software requires you to take the time to learn how to use it. While you may be an experienced accountant, you'll still need to learn what each button and menu command does in order to use accounting software effectively. This learning curve can result in costly affairs. In some cases, paid training may be necessary to learn how to perform certain tasks. If you're not tech savvy, the process could be even more difficult.
6. **Time:** Many accountants find that it takes more time to enter data into accounting software than it does to write it or type it into a spreadsheet. Due to step-by-step screens, the process often takes longer, especially for those who don't use the software often or are still new to using the program. If the software requires numerous steps to enter basic data, the time requirements may outweigh the benefits of automatic calculations.

CONSIDERATION WHILE CHOOSING ACCOUNTING SOFTWARE

When it comes to selecting accounting software, there are a number of options available in the market and it can be overwhelming to choose the best one. The following is a list of factors to be considered while choosing accounting software:

- 1. The Size of the Business Organization:** The size of the organization and the volume of the business transactions entered into influence the choice of software. While a large organization will require software that meets the multi-user requirements because it is geographically scattered and connected through complex networks, a smaller organization may opt for simple, single user operated software.
- 2. Ease of Use:** The interface and navigation should be simple and self-explanatory. There should also be an option for data back-up. Preference can be given to vendors that offer help at no additional cost, have reasonable service plans or offer tutorial training that walks the clients through the most popular business tasks and transactions.
- 3. Features:** What particular software offers is an important consideration. A list of the primary things that the business needs to track and account for should be carefully prepared. The business must know how much each service or product costs and be able to track the cost of goods sold (COGS). Features like invoicing, online payments, payroll, auto payments, reporting, bank balances will help to stay up to date on sources of business income, expenses and where it may need to make adjustments.
- 4. Protects Classified Data:** When financial data is stored in the cloud, there is no longer the possibility of vital information being lost in the event of a hard drive crash, power surge, or coffee spill. The data is backed up on external servers. However, with cloud-based software comes the threat of classified data falling victim to malicious activity. Online banking has set a standard for security, so it becomes necessary to ensure that the chosen software either meets or exceeds this standard. This means Secure Socket Layer (SSL) encryption, multi-layered firewall server protection, and routine external audits and inspection.
- 5. Compatibility:** If there are other financial tools that are used in the business – for example, an e-commerce system, then business would want to look into the compatibility of the financial software with any other essential software to run the online or storefront portion of the business. In an ideal world, it may want a solution that provides most of what it requires in a single program. However, if it must have multiple software packages, it will have to ensure that the data can automatically be linked for real-time updates or transferred daily with the upload of an Excel or CSV file.
- 6. Price:** While price is a necessary factor to be considered, it shouldn't necessarily be the deciding one. The ability to manage money is far more important if it's the difference of saving just a few rupees. What one should be aware of is the different pricing models that are used by software product providers.

Having suitable software in place, will allow a business to stay on top of cash flow and focus on what it does best (i.e. allow the business to focus on its core competence). It also helps keep the records clean.

ACCOUNTING SOFTWARE IN INDIA

Only a few years ago, accounting applications lived on the desktop of the small business owner or an accountant's computer. The books were not accessible

from another location and only one person could view them at a time. Then cloud computing took off and business **accounting** software providers caught on.

In a computerized accounting system, the framework of storage and processing of data is called operating environment that consists of hardware as well as software in which the accounting system works. The type of accounting system used determines the operating environment.

Some of the most prevalent business accounting software systems are:

1. **Tally ERP.9:** Tally ERP.9 is a business accounting software for the purposes of accounting, inventory and payroll. Tally has been one of the dominating accounting software for almost two decades. The software has been developed by Tally Solutions Pvt Ltd. It is the most user-friendly for accounting software and thus, employers prefer Tally for easy availability of trained professionals for this specific software. Almost all accounting activities like inventory, purchase, sales, cost, payroll and statutory year end processes can be easily handled by Tally.
2. **Profitbooks:** This is an Online accounting software developed for small enterprises. It can only be operated on the internet as it is cloud based. The data can be securely placed in a cloud and can be accessed anywhere.
3. **Marg:** Accounting Software is developed by Marg Compusoft Pvt Ltd and is well accepted in small and medium enterprises of India. The software is marketed for the last two decades in the Indian market.
4. **Wave:** Wave's accounting tools are 100% free, secure, and very popular in accounting community. It is one of the best web based accounting software solution available at present.
5. **Xero:** Developed by Xero, it is an award winning web based accounting software for small business owners and accountants. The user interface is nicely designed and is easy to use for online bookkeeping.
6. **Reach:** Reach Accounting Software is developed by Reach Accountant. It is an online Accounting Software aimed at Small & Medium Businesses. The significant part of Reach is that all the business operations are bundled in single software and it ensures that the business owner is able to track every aspect of the business.

INTRODUCTION TO TALLY ERP.9

About Tally Software

Tally ERP.9, developed by Tally Solutions Ltd., is one of the most popular and widely used business management software available in India and other countries. It can be used by small to large business organization. It is available with two types of licensing system:

1. **Silver Edition Mode (Single user):** It is for single use PC. It can be activated online or offline. It can be accessed from the system on which it is installed by only a single user.

2. Gold Edition Mode (Unlimited Multi user): It is for unlimited number of user PCs. It is installed on LAN (local area network) and supports a maximum of ten users.

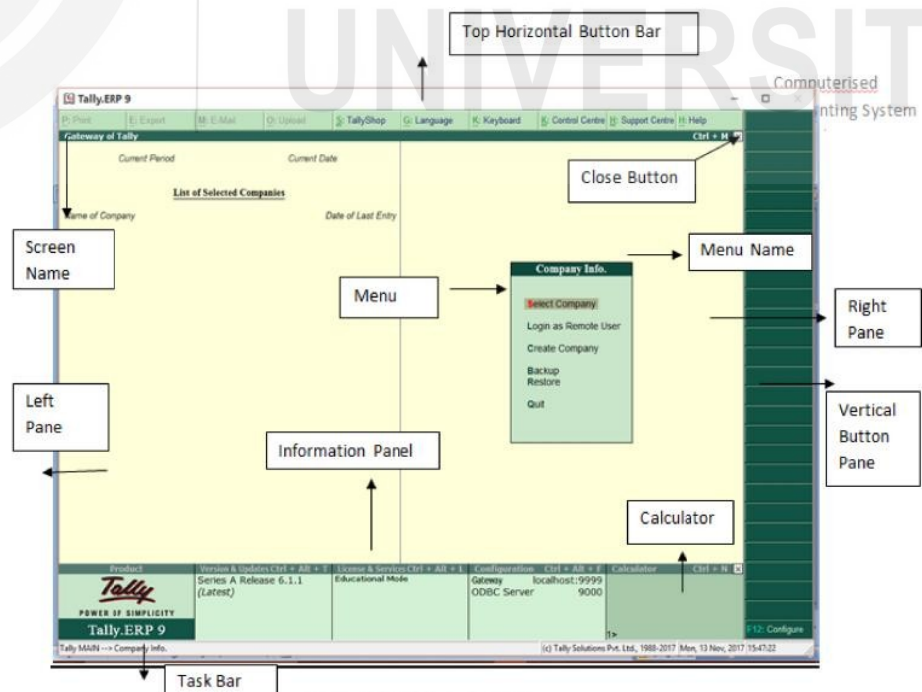
How to Start Tally ERP.9

Go to start button, click 'all programs'. With in 'All Program', go to Tally ERP.9 or installation of Tally icon on the desktop. If you double click on Tally icon, Tally will open and you can start working on it.

Components of Tally

The gateway of Tally displays menus, screens, reports and options that you select. The components of Tally ERP.9 are:

- **Top Horizontal Button Bar:** This is a collection of buttons that are fixed and provide quick interaction
- **Close Button:** This helps in moving out of Tally application.
- **Screen Name:** It shows the name of the current screen.
- **Right Pane:** In right pane menus are displayed. The red letter in each menu represents short cut and by pressing that alphabet from keyboard one can open the menu.
- **Left Pane:** It shows current period, current date and name of companies with last date of voucher entry done in each company.
- **Vertical Panel Bar:** It is used for quick interaction.
- **Calculator:** It can be used for calculation work and figures can be computed. (Ctrl + N)
- **Information Panel:** This displays details of product, version, license and configurations.
- **Task Bar:** It shows the complete navigation path of the current menu or screen selected.



GATEWAY OF TALLY

Fig. 18.1

Check Your Progress A

1. Choose the correct answer:
 - i) The disadvantages of Computerised Accounting System is/are:
 - (a) Speed (b) Efficiency (c) Breach of Security (d) All of the above
 - ii) Tally Software is developed by
 - (a) Apple (b) Adobe (c) Microsoft (d) Tally Solutions
 - iii) The screen of Gateway of Tally consists of following components:
 - (a) Task Bar (b) Information Panel (c) Vertical Button Pane (d) All of the above
 - iv) Which of the following is not an accounting software?
 - (a) Tally.ERP.9 (b) Wave (c) SPSS (d) Marg

CREATION OF A COMPANY

Creating company is the first step towards starting working with Tally ERP.9. A company is an organization for which financial records are to be maintained and therefore, it can be called as a central repository from where any financial statement or report can be extracted at any time. A company can be Partnership Firm or a Sole Proprietor or a Limited Liability Partnership or Non-Governmental Organization or a Company registered under Companies Act, 2013.

Procedure of Creating a Company

To create a company, click on the 'create company' in 'Company Info'. Alternatively, one can press ALT+ F3 and the company info screen will appear as appeared in Fig. 18.2.

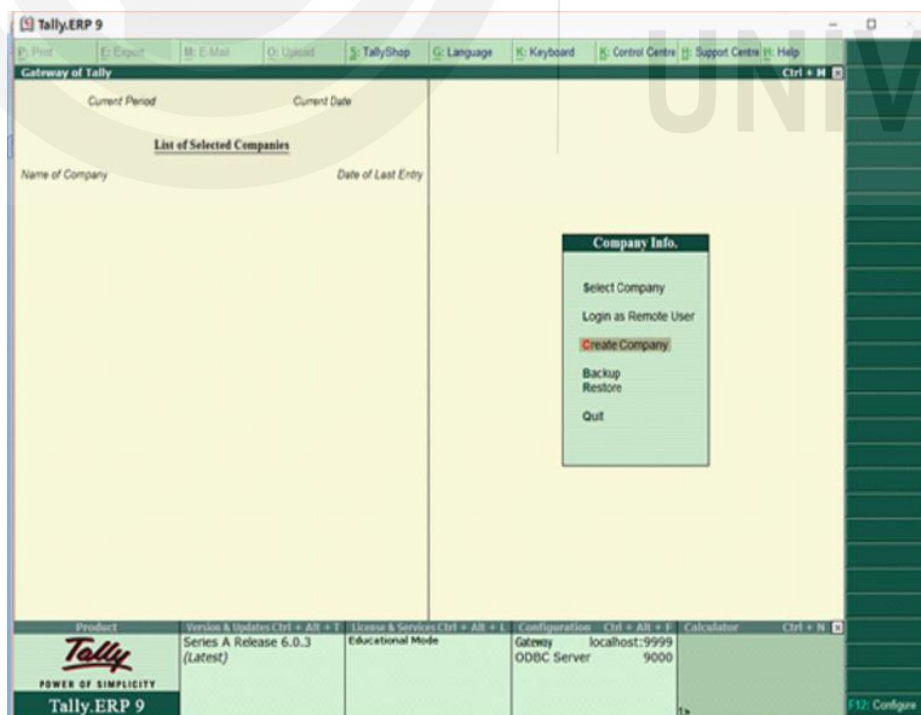


Fig. 18.2

Once, you click ‘create company’, the following screen will appear as appeared in Fig. 18.3 in front of you.

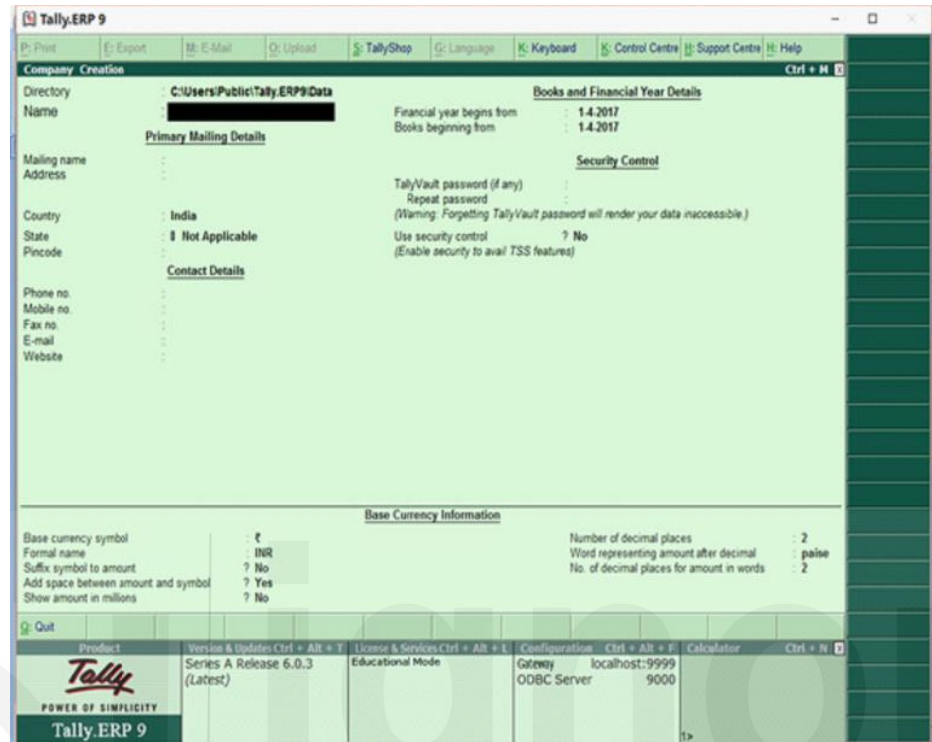


Fig. 18.3

The various fields appearing in company creation in Fig. 18.3 are explained below:

- **Directory:** It will display the path where your company data is stored. By default, it would automatically be stored in Tally ERP.9 data folder, but you can change its path and can specify any location where you want to store the data relating to the company by pressing backspace key
- **Name:** It means providing a name to the company. Example: Surbhi Ltd.
- **Primary Mailing Details:**

Mailing Name: You can specify any other name if you want for mailing purpose. By default, it will always show the name which you have entered in the Name field earlier

Address: Provide the address of the company in this field

Statutory Compliance: Choose the country in which the company is located. For example, we have selected India.

State: Choose the state in which the company is located. For example, we have selected Delhi.

Pin-code: Provide the Pin code for the company where it is located.

- **Contact Details**
- Provide telephone number, mobile number and Fax number (if any) of the company. Also, provide the official email address of the company which would be further used for emailing of reports and statements.

- **Auto-Back up:** Putting 'Yes' to enable auto backup will result in automatically creating backup of the data of the company in the company data folder.

- **Company Details:**

Currency Symbol: Once country is selected, Tally will automatically choose the currency of the country. In this example, we have selected India, so currency symbol would be of 'Rupee'.

Maintain: If company maintains inventory with them, select accounts with inventory otherwise accounts only. Selecting accounts with inventory would combine both financial accounts and inventory books.

Financial Year: Financial year is a period of 12 months starting from 1st April. The accounting period in this example, will begin from 1st April, 2017.

Books beginning from: Provide a date at which you started maintaining your books. It can be a date later than 1st April, 2017. By default, it would automatically take date mentioned in previous field.

- **Security Control:**

Tally Vault Password: Entering this password will require, opening the company with password each time. The name of the company having tally vault password will be shown with asterisk '*' mark.

Repeat Password: Password entered in various field has to re-enter for confirmation.

Use Security Control: Enabling this field as 'Yes' will allow to define access administrator user name and password. Every time you open a company, it would ask for name of administrator and password.

- **Base Currency Information:**

Base Currency Symbol: The selection of country will define base currency symbol. In this example, we have selected India, so currency symbol would be of 'Rupee'

Formal Name: The formal name of the currency like INR (Indian Rupee) will be displayed.

Suffix Symbol to amount: This will allow putting symbol of currency after the amount.

Add space between amount and symbol: This will allow space between amount and symbol.

Show amounts in millions: This will allow the values of amount to be expressed in millions i.e. international system of numeration.

Number of Decimal Places: By default, it will be set to 2 places only and Indian currency has 2 decimal places whereas some currency has 3 decimal places. It can go upto 4 decimal places.

Words representing amount after decimal: By default, it will be automatically set according to currency.

Number of Decimal places for amounts in words: Provide the number of decimal places for which printing is required. It can be equal to or less than number of decimal places field but can't be more than that.

After filling all the requisite details, the company creation screen will appear as follows shown in Fig. 18.4

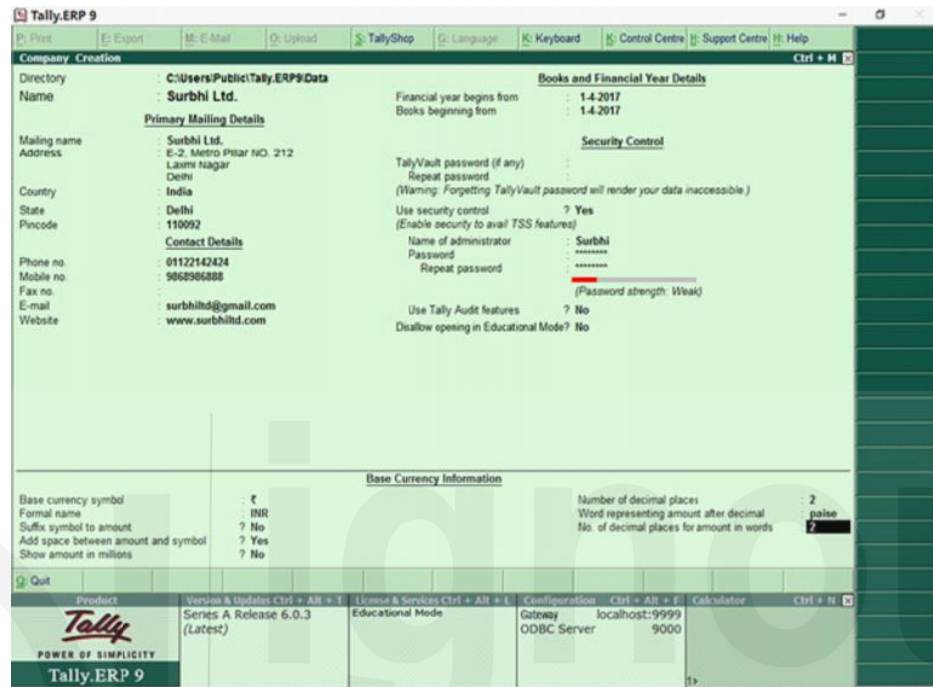


Fig. 18.4

Once the details are filled and you press enter again, screen will displays a box saying accept Yes or No? If all the details are correctly filled, then proceed to select 'yes' otherwise select 'No' as shown in Fig. 18.5.

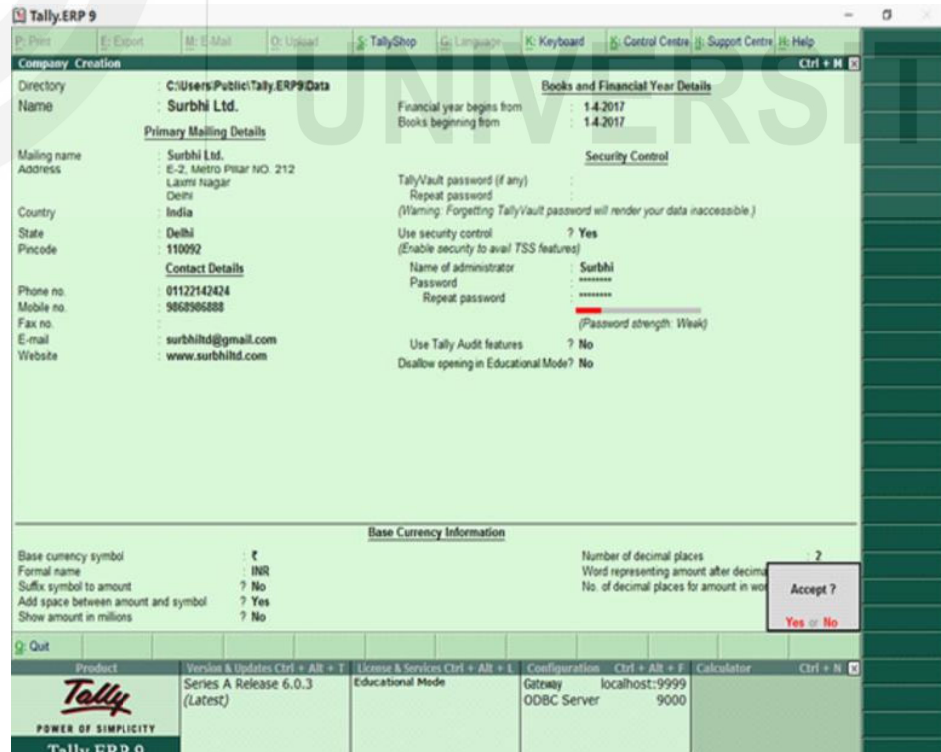


Fig. 18.5

Once you select 'Yes', the company creation is complete and the following screen will appear as shown in Fig. 18.6.

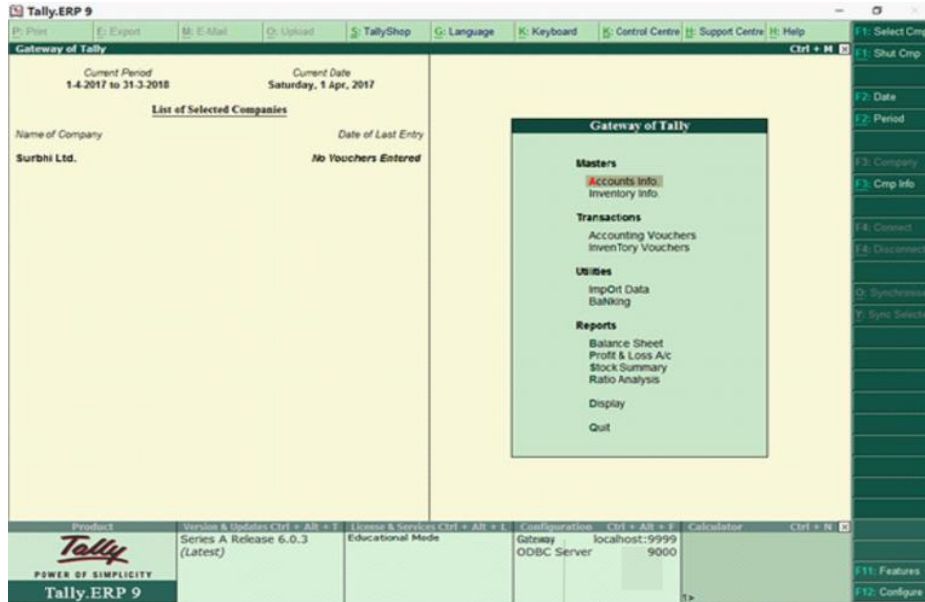


Fig. 18.6

The Gateway of Tally will appear as above with current period and current date on left side pane of tally screen. Below that it will display the name of the company which is open. Since it is a new company created, therefore in date of last entry it is written no vouchers entered. In the right pane, you can see masters where ledger and group creation along with inventory are created. In transactions, vouchers are created related to accounting and inventory. Utilities consist of importing of data from outside and other banking related operations like cheque printing, deposit slip etc. Finally reports include all financial statements like balance sheet and profit and loss, stock summary and ratio analysis. Display includes trial balance, day book, cash/fund flow etc. and in the end finally quit where you will be able to close the tally programme if selected 'Yes'.

Selecting a Company

By using 'select company' field you can open another company from list of companies already existing in tally. Click Alt+F3 and company info will open as shown in Fig. 18.7. Click select company field or press S.

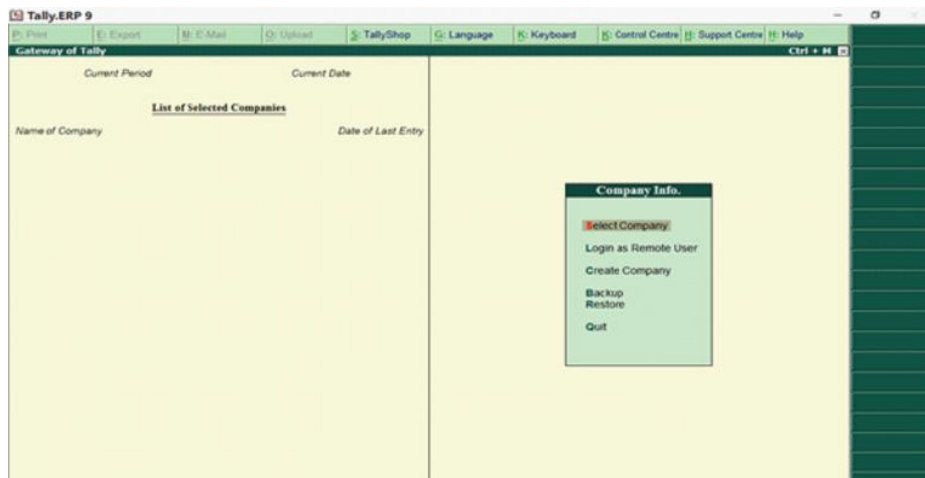


Fig. 18.7

Once you click select company, the following screen will appear as shown in Fig. 18.8:

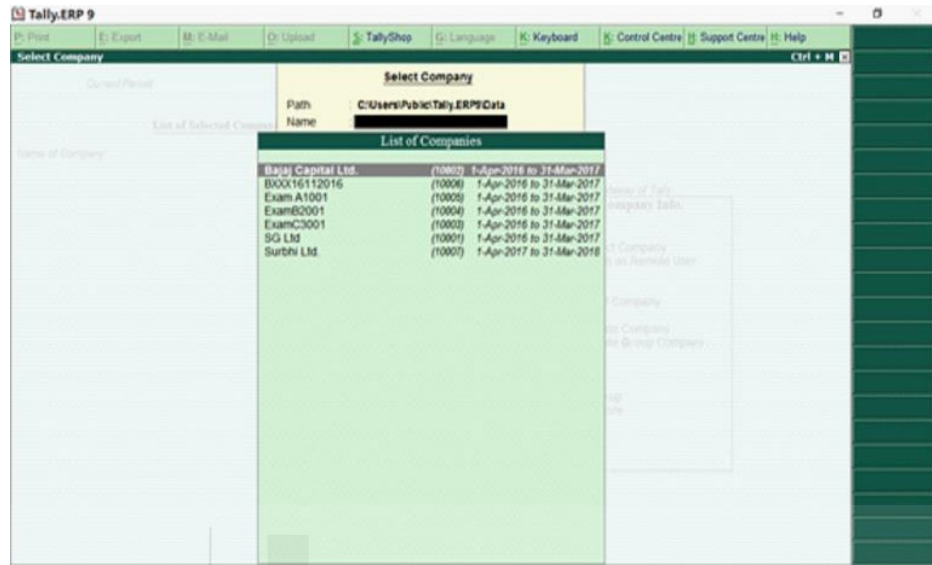


Fig. 18.8

You can select the company which you want by using arrow key and then pressing enter or by clicking the company through mouse.

Alteration of Details of a Company

Once company is created, you might need to update details related to company already created before. Again go to gateway of tally, click company info or Press F3, the following screen will appear as shown in Fig. 18.9.

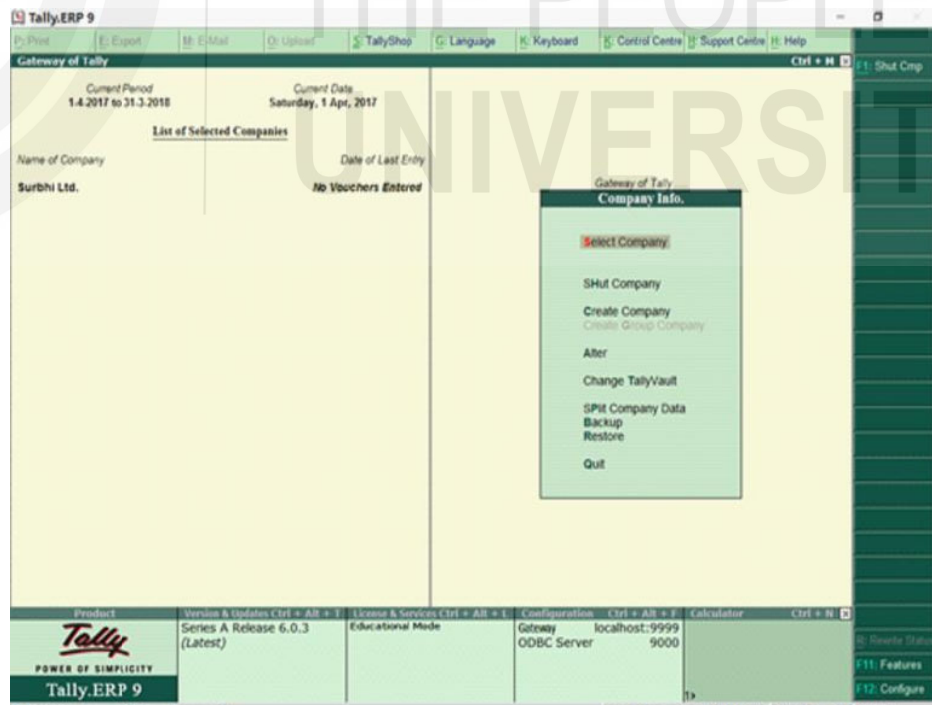


Fig. 18.9

Once you click ‘alter’, the following screen shall appear as shown in Fig. 18.10.

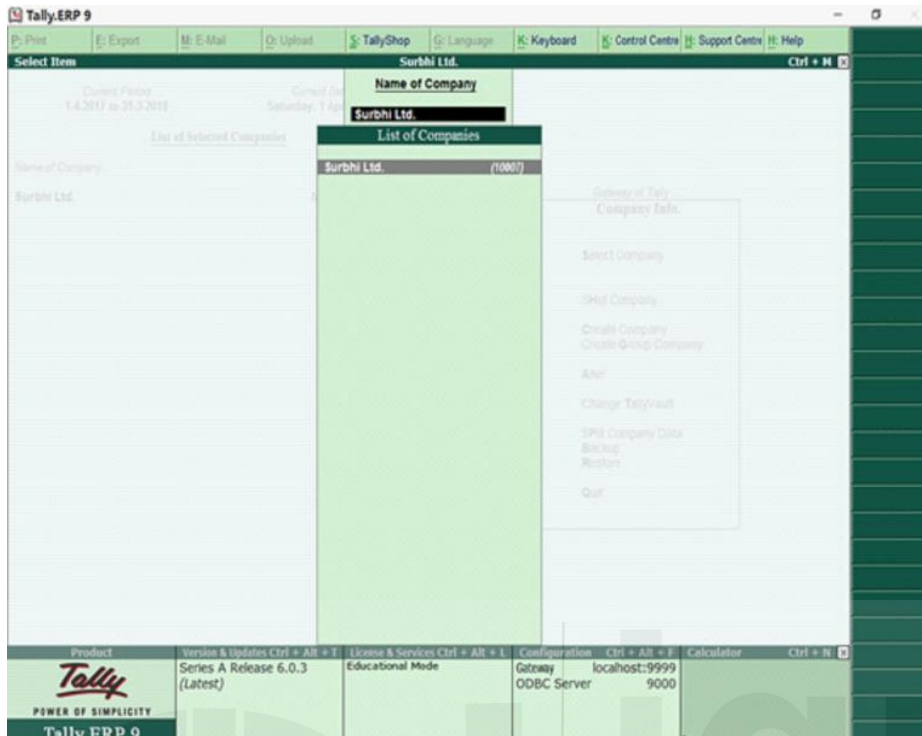


Fig. 18.10

Select the company for which you wish to alter details and after selecting, the following screen will appear and you can alter any details you want as shown in Fig. 18.11.

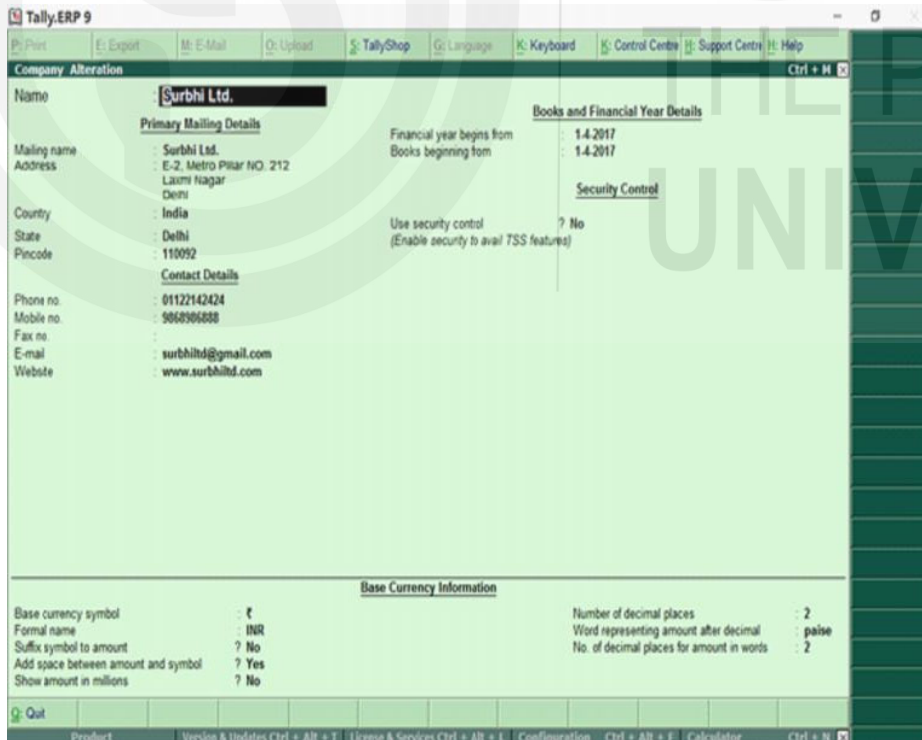


Fig. 18.11

After altering the same, once again a box will appear saying Accept 'Yes' or 'No'? Click 'yes' if alteration is done and click 'no' if you further wish to alter the details of the company.

Deletion of a Company

For deletion of a company, you have to go to gateway of tally and then company info and then alter (same like alteration of details of a company). Once you click alter and select the company, the company details screen will appear as follows as shown in Fig. 18.12:

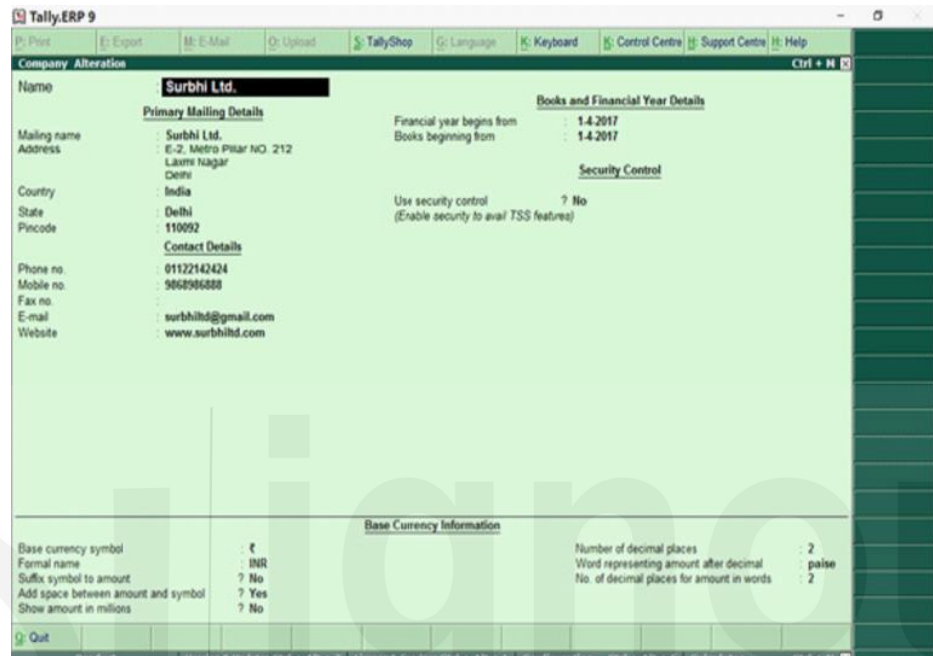


Fig. 18.12

Now, Press Alt+ D and it will ask you to delete the company i.e. yes or No. If you wish to delete the company press 'Yes' or otherwise 'No'. Once you press Y or select 'Yes' through mouse click, company will be deleted and the data will not be available as shown in Fig. 18.13:

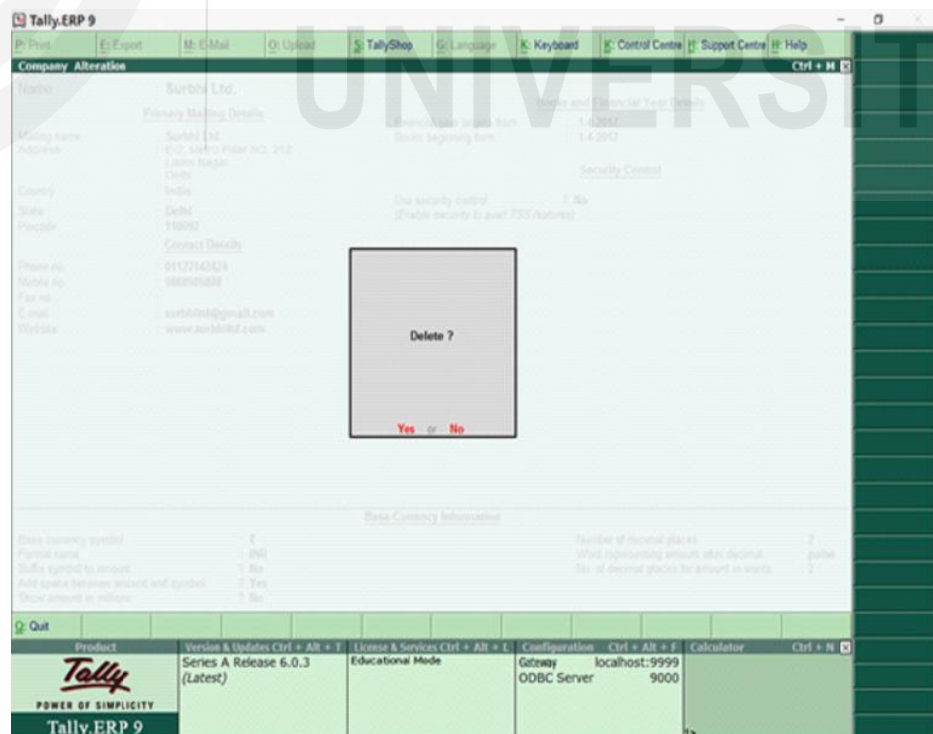


Fig. 18.13

Shutting of a Company

Once company is created, if you want to shut the company which is already open, again go to gateway of tally, click company info or Press F3, the following screen will appear as shown in Fig. 18.14:

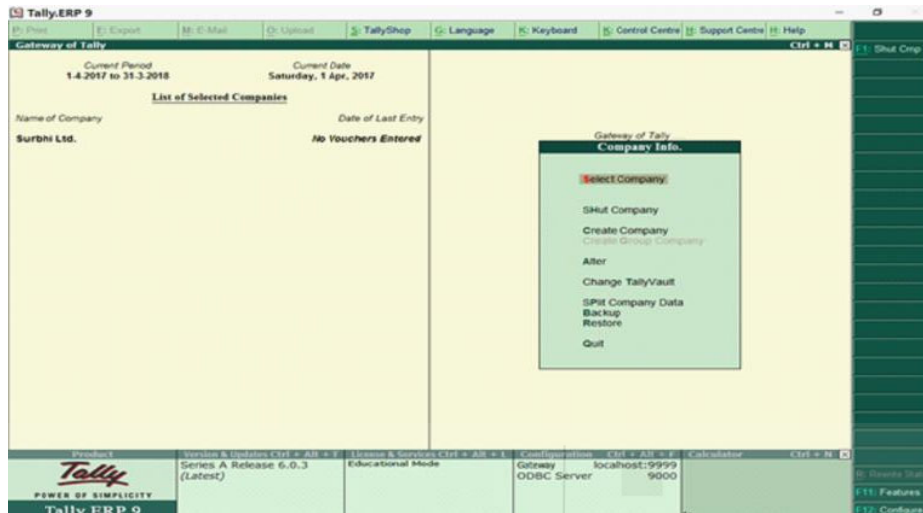


Fig. 18.14

Press shut company field or Press H or Alt+ F1 or click F1: Shut Company on the right pane.

FEATURES AND CONFIGURATIONS

Once you have created a company, it is now time to set features and configurations as per requirement. Features will affect only the company in which they are enabled as 'Yes' or 'No' whereas configurations will have an effect on all companies in the directory data.

Features

Features are set of capabilities which are provided as options, which will enable you to set and maintain your records of financial statements as per your need. It can be found by Clicking FEATURES on vertical button bar on right pane. Alternatively you can press F11 and features screen will appear as follows as shown in Fig. 18.15:

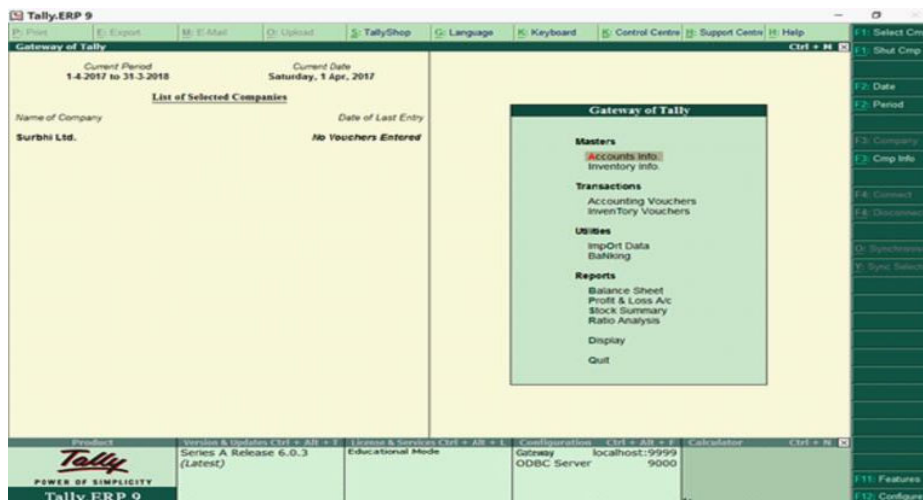


Fig 18 15

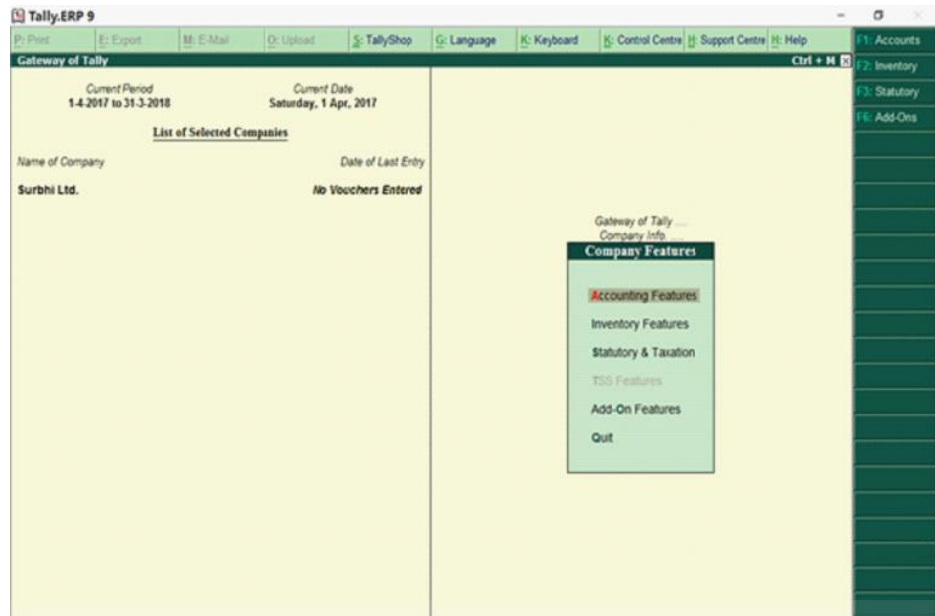


Fig. 18.16

You can now see various features like accounting, inventory, statutory and taxation and add on features as shown in Fig. 18.16. You can open say accounting feature by clicking it or pressing ‘A’ or pressing F1 or by clicking F1: Accounts on the vertical button bar on right pane. Once you do so, the following screen will appear as shown in Fig. 18.17:

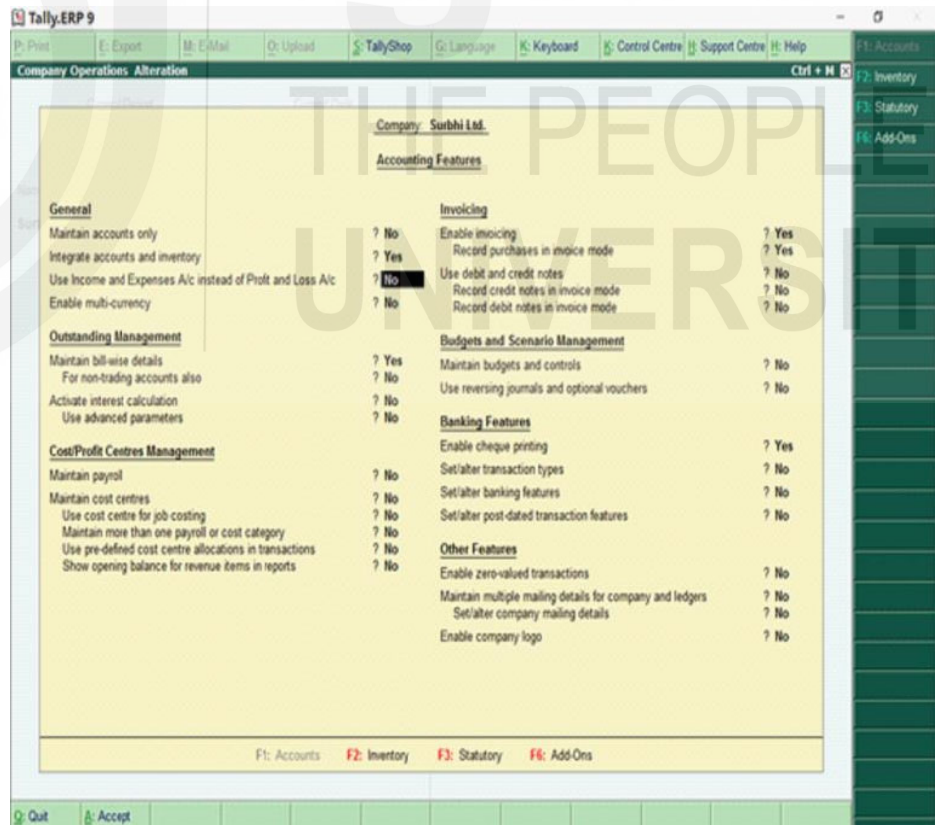


Fig. 18.17

There are three categories of features viz; (i) Accounting Features; (2) Inventory features, and (3) Taxation and statutory features.

Accounting Features

The **accounting features** consists of general, outstanding management, cost/profit centres management, invoicing, budgeting and scenario management, banking features and other features as shown in Fig. 18.17:

- **General:** If you have chosen accounts with inventory while creating company, maintain accounts only option will be set as 'No' and integrate accounts with inventory option as 'Yes'. If you have chosen accounts only while creating company, maintain accounts only option will be set as 'Yes' and integrate accounts with inventory option will not be highlighted and will be grey in color. If you wish to have income and expenditure account in place of Profit and loss account (Like for NPO) you can enable this as 'Yes'.
- **Outstanding Management:** This will help maintain bill wise details and also, calculate interest on outstanding.
- **Cost/Profit Centres Management:** It helps in maintaining payroll and cost centres.
- **Invoicing:** To enable recording purchase in invoice mode, type 'Yes'. To record sales and purchase return, debit and credit note is used. Set Debit and credit note as 'Yes'
- **Budgeting and scenario management:** To maintain budget, enable the option as "Yes".
- **Banking Features:** To enable cheque printing, enable cheque option as 'Yes'.
- **Other Features:** To enable zero valued transactions while recording transactions, enable this option as 'Yes'.

After carrying out all requisite changes in accounting features, Accept 'yes' or 'No'. The tally screen will appear as follows as shown in Fig. 18.18:

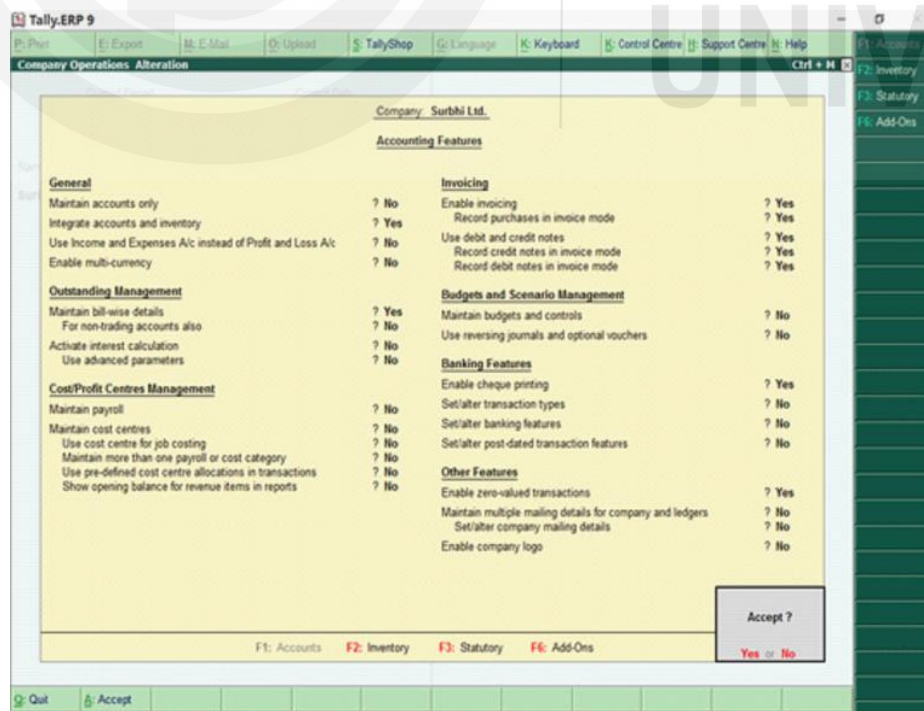


Fig. 18.18

Inventory Features

The **inventory features** consists of general, storage and classification, order processing, invoicing, purchase and sales management and other features. You can open inventory feature by clicking it or pressing ‘I’ or pressing F2 or by clicking F2: inventory on the vertical button bar on right pane. Once you do so, the following screen will appear as shown in Fig. 18.19:

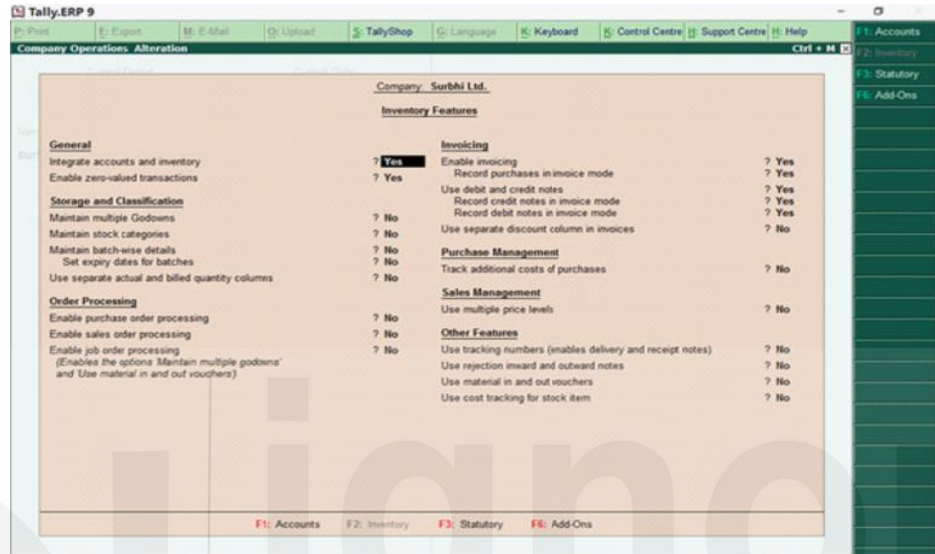


Fig. 18.19

In general, integrate accounts and inventory will be set as ‘Yes’ if you have selected accounts with inventory while creating company. If you want to enable zero valued transactions, set this option as ‘Yes’.

In storage and classification, if you want to maintain stock according to location or warehouse, enable maintain multiple godowns/locations as ‘Yes’. To maintain stock category wise, enable maintain stock categories as ‘Yes’.

Set invoicing as ‘Yes’ and use debit and credit notes in invoice mode as ‘Yes’. To record discount in invoice in separate column, enable this option as ‘Yes’.

After all settings, the screen will appear as follows as shown in Fig. 18.20: and accept ‘Yes’ to proceed further:

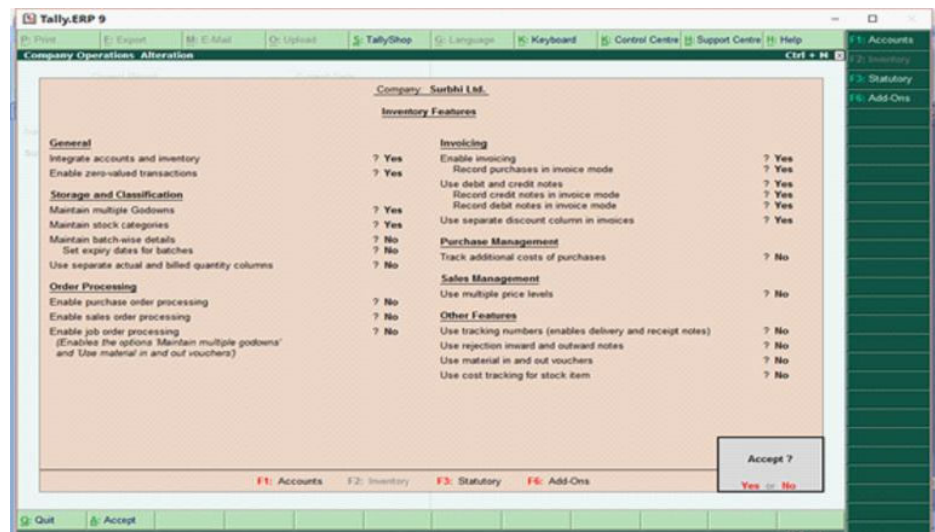


Fig. 18.20

Statutory and Taxation Features

Next feature is **Statutory and taxation**. You can open inventory feature by clicking it or pressing 'S' or pressing 'F3' or by clicking 'F3': statutory on the vertical button bar on right pane. Once you do so, the following screen will appear as shown in Fig. 18.21:



Fig. 18.21

Please note statutory compliance is country specific. Since we have selected India as option in statutory compliance for, therefore the displayed statutory and taxation features are those that are relevant to India. One can set these according to business specific requirement. To enable GST, VAT, Service Tax, TDS & TCS enable option as 'Yes' along with set/alter details option. Suppose, GST is relevant to our business, then setting GST as 'Yes' will appear like above as shown in Fig. 18.22:

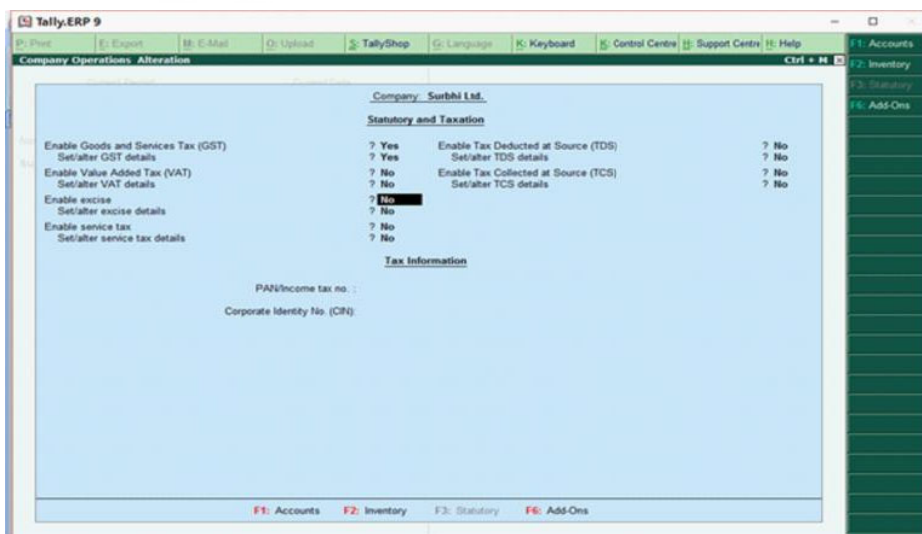


Fig. 18.22

Computerised Accounting

In tax information, put PAN number and Corporate Identity Number if available. After all settings, the screen will show accept 'Yes' or 'No'. If all the settings have been done, accept as 'Yes' otherwise 'No' and do the required settings.

Sometimes, there are specific problems which relates to specific organization or company or business. The solution provider i.e. Tally partners provide a new feature as solution which is specific to that organization or company or business only. It is known as customized solution and it gets placed as add on feature. One can see add on feature by clicking it or pressing 'O' or pressing 'F6' or by clicking 'F6': Add-Ons on the vertical button bar on right pane as shown in Fig. 18.23:.

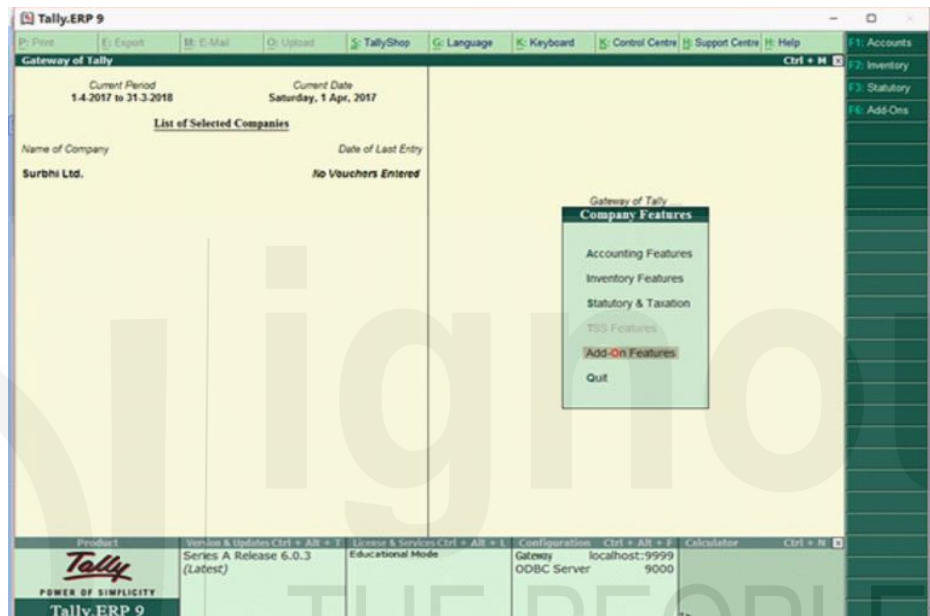


Fig. 18.23

To return to the main screen, either click quit or Ctrl +M.

Configurations

Configurations are options that help you modify the way a feature works. Configuration can be located on vertical button bar in the last. You can also press F12 or click F12: Configure.

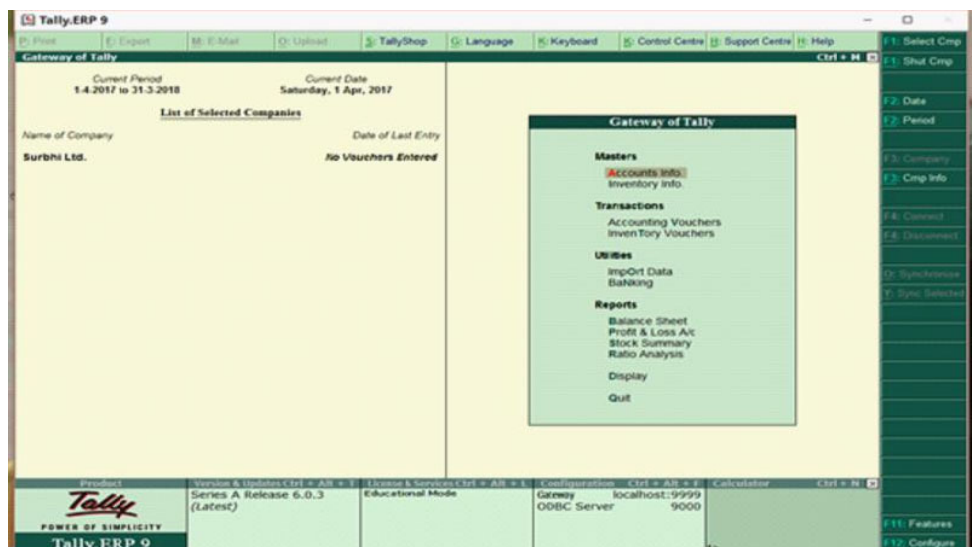


Fig. 18.24

Once you press F12 or open F12: Configure, the following screen will appear as shown in Fig. 18.24:

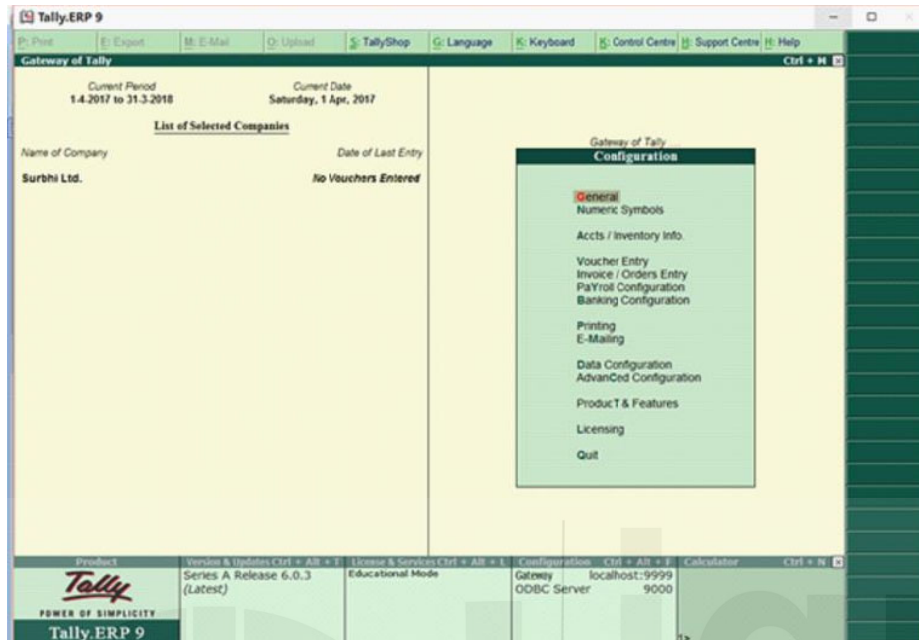


Fig. 18.25

This gateway of tally screen of configuration will allow different configuration like general configuration, numeric symbols, accounts/inventory info, voucher entry, order entry, payroll and banking configuration etc. as shown in Fig. 18.25:

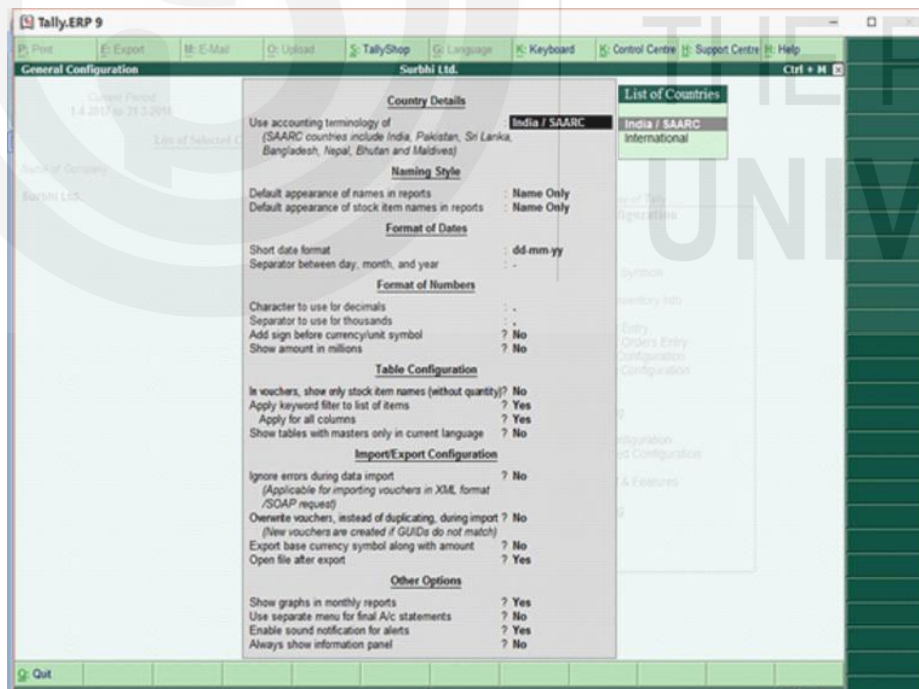


Fig. 18.26

In the above screen as shown in Fig. 18.26, you can see general configurations where you can select country from India/SAARC or international, different styles of displaying names of reports and stock items, different styles of writing dates, formatting of numbers (character to use for decimal, separator to use for

thousands etc) and other options like monthly reports in form or graph. If you enable use separate menu for final account statement as ‘Yes’, then on main screen of gateway of tally, balance sheet and profit and loss will come under Final Accounts field as below as shown in Fig. 18.27:

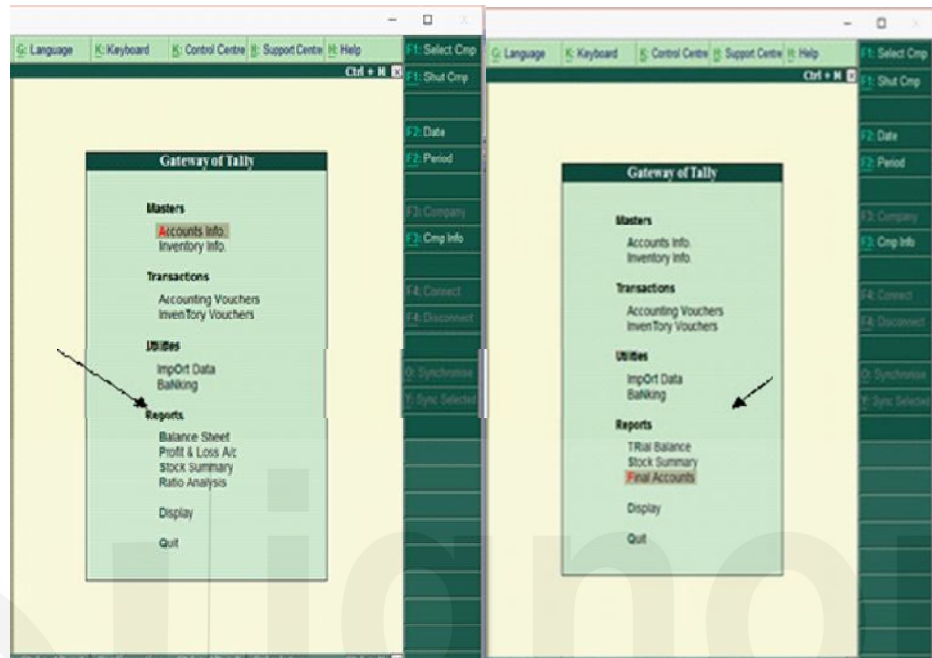


Fig. 18.27

To configure the numeric symbols, select the option ‘Numeric Symbols’ and the following screen will appear as shown in Fig. 18.28:

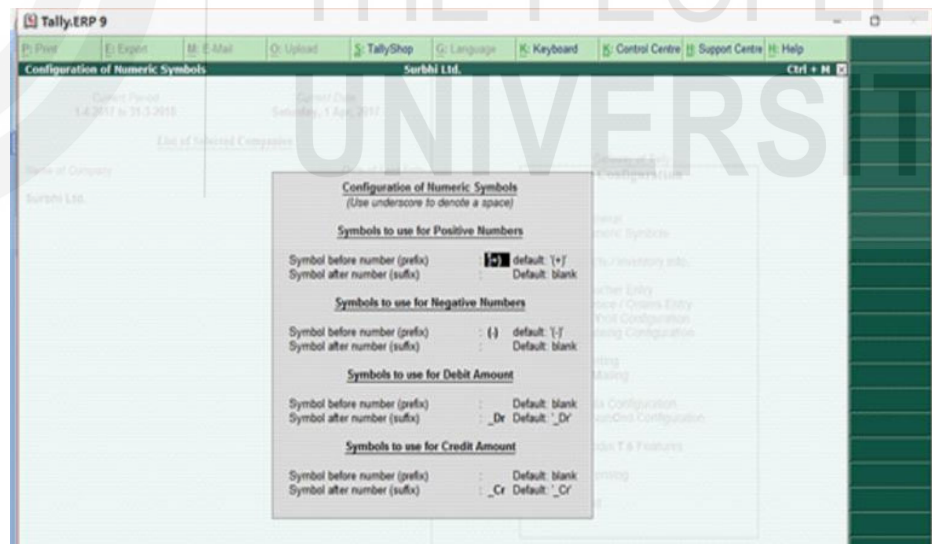


Fig. 18.28

It includes symbols to be used for negative and positive numbers and debit and credit amounts.

The screen below as shown in Fig. 18.29 shows master configurations related to accounts and inventory.

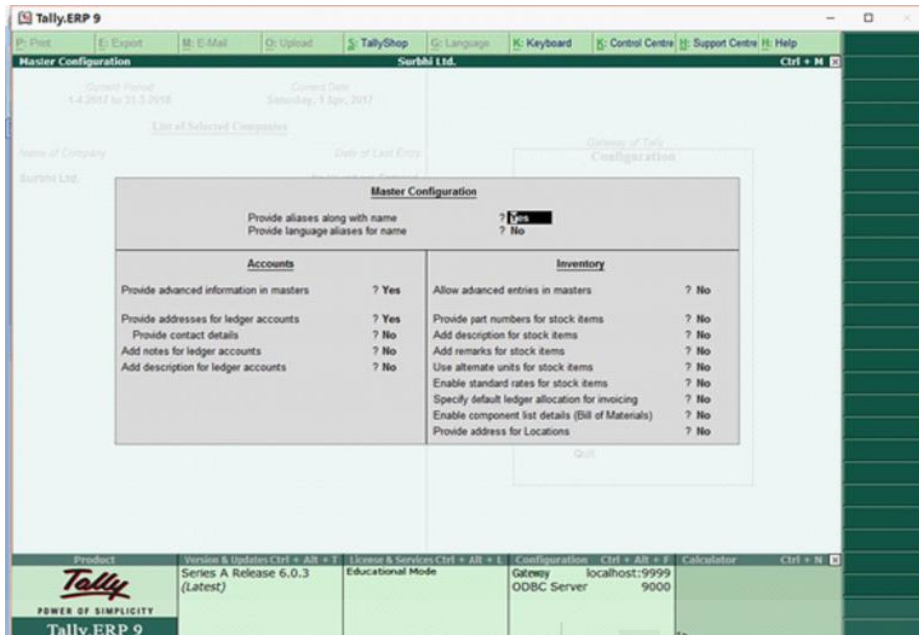


Fig. 18.29

Next is voucher entry related configurations pertaining to both accounting and inventory info. On opening voucher entry, the following screen will appear as shown in Fig. 18.30.

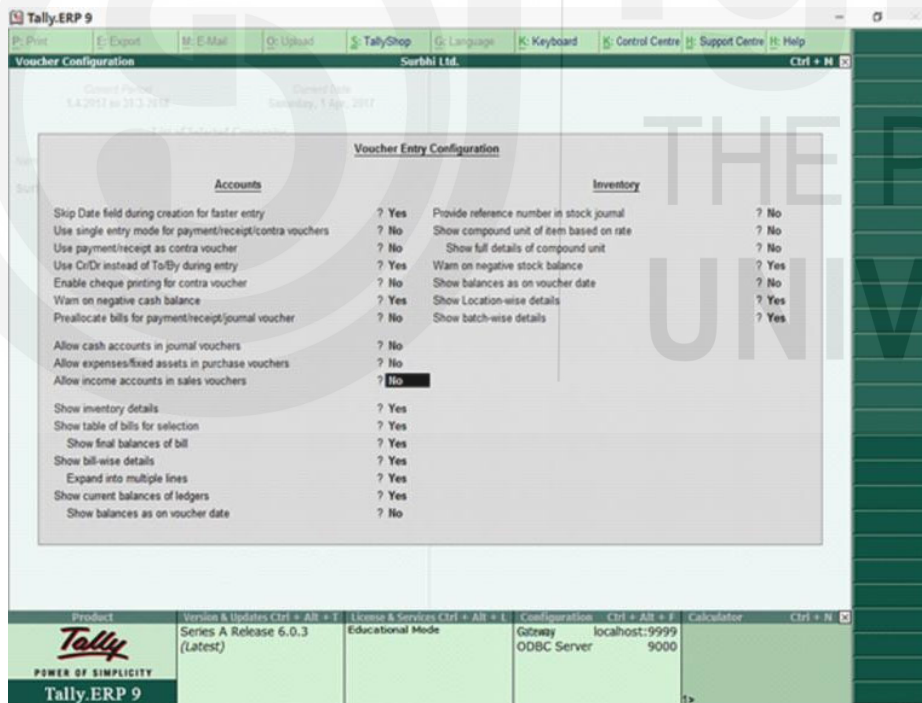


Fig. 18.30

If you wish to skip date for faster entry, enable this option as 'Yes'. It will jump to next field automatically.

Set use single entry mode for Pymt/Rcpt/Contra and Use payment/Receipt as contra as 'NO' and use Cr/Dr instead of To/By during entry as 'Yes'.

Set warn on negative cash balance as 'Yes' so that whenever cash balance goes negative, it will show warning as shown in Fig. 18.31.

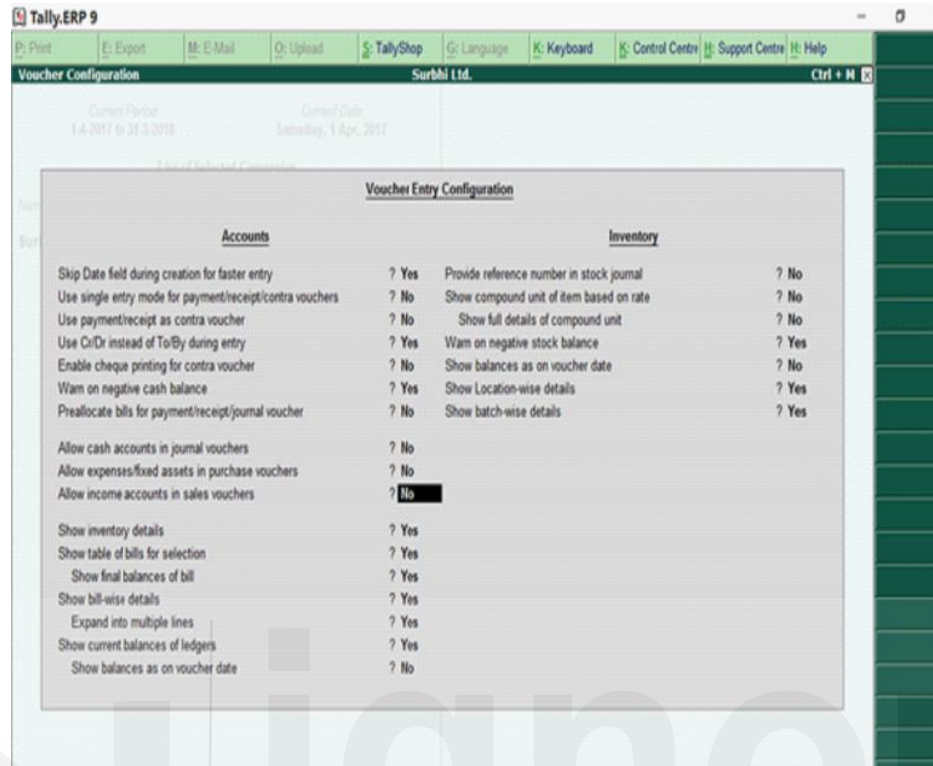


Fig. 18.31

Invoice /Order Entry will let you configure additional things like export details, shipping details etc.

Payroll configuration is used to configure additional details for the employees.

Banking configuration will let you configure banking details.

Printing configuration helps to configure the printing screens for the reports and transactions.

E-mailing will help you configure email related details.

Data configuration will enable configuration of data i.e. location of tally files, export files etc.

Product and features will tell you about the details of current product installed in your system.

Licensing will help you update, surrender, reset license and also configure existing license.

Quit will enable you to return to the main screen of gateway of tally.

SHUTTING TALLY ERP.9

To exit out of Tally application, close all the screens. Once all the screens are closed, you can see gateway of tally, now press 'Esc' key from keyboard and when prompted to quit, press yes. Otherwise you can also click Ctrl +M on the extreme right corner and when prompted to quit, press yes.

You can also click Ctrl+Q to exit without confirmation.

KEYBOARD CONVENTIONS

| ACTIONS | PARTICULARS |
|------------------------|-----------------|
| Fn (F11: FEATURES) | Press the Key |
| Fn (K: KEYBOARD) | Press Alt+ Key |
| Fn (K: CONTROL CENTRE) | Press Ctrl+ Key |

Check Your Progress B

- The option used in Tally to close an open company is:
(a) Alter Company (b) Close Company (c) Shut Company (d) Exit Company
- In features option, F2 option contains:
(a) Accounting Features (b) Inventory Features (c) Statutory Features (d) Tally NET Features
- For creating a company we use the following shortcut:
(a) Alt+ F1 (b) Alt +F2 (c) Alt +F3 (d) Esc Key
- One can modify an existing Company:
(a) Company Info > Alter (b) Company Info > Alter Company (c) Gateway of Tally > Modify Company (d) None of the above
- To change date from gateway of Tally, Press
(a) F1 (b) F2 (c) F3 (d) F4
- The shortcut to use calculator
(a) Ctrl +N (b) Ctrl + M (c) Ctrl +P (d) Ctrl + L

LET US SUM UP

With the advancement of technology, maintaining records of financial transactions has also changed from manual to electronic form. Computerised Accounting system has been adopted by most business organizations because of its comparative advantages like speed, ease, security, reliability to name a few. But these advantages come at a cost. There are chances of data being corrupt, electricity issues, theft of data and too much reliance on computer. Still its advantages outperform in relation to disadvantages.

Business organization should keep in mind various factors while choosing accounting softwares as varied softwares are available in market. The main difference between computerized accounting and manual accounting is that ledgers are created first and then journal entries are done through vouchers instead of journal entries being followed by ledger posting as done in manual accounting system.

Computerised Accounting

First step in computerized accounting system is creation of company where all the basic details like name, address, email, mobile number, maintaining accounts with or without inventory, financial year are filled in the software. The company details can be altered at any stage if needed. The company can also be deleted if required. The features and configurations help the business organization to maintain financial record as per requirement of business. Features are applicable to only company where as configurations are for overall Tally Software. The next step after company creation is creating masters.

KEY WORDS

Accounting Features: The accounting features consists of general, outstanding management, cost/profit centres, management, invoicing, budgeting and scenario management, banking features and other features.

Alteration of Details of a Company: A process of making changes in the details of company or any data which is misspelt or wrongly taken while putting information during company creation process.

Computerised Accounting System: A process of digitally collecting, recording, classifying and summarising financial data using accounting software for managerial decision making.

Configuration: Configurations are options that help you modify the way a feature works. Configuration can be located on vertical button bar in the last. You can also press F12 or click F12: Configure.

Features: Features are set of capabilities which are provided as options, which will enable you to set and maintain your records of financial statements as per your need.

Gateway of Tally: The gateway of Tally displays menus, screens, reports and options that you select.

Inventory Features: The inventory features consists of general, storage and classification, order processing, invoicing, purchase and sales management and other features.

Manual Accounting System: A process of physically maintaining books of accounts.

Statutory and Taxation Features: You can open statutory and taxation feature by clicking it or pressing 'S' or pressing F3 or by clicking F3: statutory on the vertical button bar on right pane.

Shutting a Company: Once company is created, if you want to shut the company which is already open, go to gateway of tally, click company info or Press F3, a screen will appear, press shut company field or Press H or Alt+ F1 or click F1: Shut Cmp on the right pane.

Tally ERP.9: A business accounting software for purposes of accounting, inventory and payroll.

ANSWERS TO CHECK YOUR PROGRESS

A 1. i) (c) 2. ii) (d) 3. iv) (d) 4. v) (c)

B 1. (c) 2. (b) 3. (c) 4. (a) 5. (b) 6. (a)

TERMINAL QUESTIONS/EXERCISES

Questions

1. Define a computerised accounting system. Distinguish between manual and computerised accounting system.
2. Explain the considerations which are required to be kept in mind while choosing accounting software.
3. Explain the components of Tally.
4. Distinguish between features and configurations.

Exercises

Create a company with following details in Tally ERP.9:

| | | |
|--------------------------------------|--|---|
| Name of Company | S Bose Beverages Ltd. | Bhartiya Book Trading Company |
| Address | 147/A, Jheel Industrial Area, Delhi – 110051 | 4044/A/F, Rajpura Road, Mumbai – 400007 |
| Country | India | India |
| State | Delhi | Maharashtra |
| Contact No. | 011-22590475 | 022-22224477 |
| Email-id | sbose@gmail.com | contactinfo@btrading.com |
| Mobile No. | 9911000012 | 9899477701 |
| Books Beginning From | 01-04-2017 | 01-04-2017 |
| Financial Year Beginning From | 01-04-2017 | 01-04-2017 |
| Maintain | Accounting with inventory | Accounting with inventory |
| Maintain | Accounting with inventory | Accounting with inventory |

UNIT 12 FINANCIAL MANAGEMENT: AN OVERVIEW

Structure

- 12.0 Objectives
- 12.1 Introduction
- 12.2 Nature of Finance Function
- 12.3 Evolution of Financial Management
- 12.4 Key Activities of Financial Manager
- 12.5 Goals of Financial Management
- 12.6 Organization of Finance Functions
- 12.7 Challenges for Financial Manager
- 12.8 Let Us Sum Up
- 12.9 Key Words
- 12.10 Terminal Questions/ Exercises

12.0 OBJECTIVES

After studying this unit you should be able to:

- Explain the meaning of financial management;
- Describe the nature of finance function and evolution of financial management;
- Explain the key activities of financial manager and organization of finance functions;
- Discuss the goals of financial management and risk and return trade off; and
- Discuss the challenges faced by financial manager.

12.1 INTRODUCTION

Financial Management means management of finance/funds. Financial decisions are important for the business firm as growth and development of a firm depend upon its financial policies. Any wrong decision may affect the solvency of the firm. This unit introduces you to the meaning financial management, nature and organization of finance function, evolution and goals of financial management and key activities and the challenges faced by the financial manager.

12.2 NATURE OF FINANCE FUNCTION

Meaning

It is said that the finance is the life blood of business. 'Money begets money' and 'money makes the mare go', are the famous proverbs that highlight that finance actually matters to everybody. Management is concerned with planning, organizing, directing and control of any activity in a business. The successful business management is closely linked with efficient use of its finances. Financial management

is concerned with planning, organizing, directing and control of financial activities in a business. A firm has to decide the following:

- 1) From what sources the funds must be raised and how much from each source i.e., what should be the finance mix?
- 2) Where to invest those funds? What should be the composition of the assets of the firm?
- 3) How should the firm analyze, plan and control its affairs?
- 4) How large should a firm be so that it can grow fast?

Financial management, also called managerial finance or corporate finance, has been defined by different writers as follows:

“Financial management is concerned with efficient use of an important economic resource namely: capital funds. It is the study of the problems involved in the use and acquisition of funds”. (Ezra Solmon, The Theory of Financial Management: Columbia University Press (N.Y.) (1978)).

“It can be broadly defined as the activity concerned with planning, raising, controlling and administering of funds used in the business. “H. Guthman and H. Dougall: Corporate Financial Policy (Englewood Clifers) N.Y. Prentice Hall 1980.

Thus, financial management is concerned with managerial decision that results in procurement of funds and their effective utilization in the business. Financial management is nothing but managerial decision making on asset mix, capital mix and profit allocation.

Nature

According to Ezra Solomon, “the function of financial management is to review and control decision to commit and recommit funds to new and ongoing uses. In addition to raising funds, financial management is directly concerned with production, marketing and other functions within an enterprise whatever decisions are made about the acquisition or distribution of assets”. From this statement, it is clear that the main function of financial management is not only to raise funds but includes the broader area of managing the finances for the firm more efficiently. Thus, the two main decisions involved in a firm are:

- 1) Investment Decision and 2) Financing decision including Dividend decision

1) Investment decision

The funds available may be invested in any project. The financial management provides a framework to make investment wisely. Investment decision relates to:

- 1) Management of working capital
- 2) Capital budgeting decision
- 3) Management of mergers, reorganization and disinvestment
- 4) Buy or lease decisions
- 5) Securities analysts and portfolio management

The investment in fixed assets and management of current assets is major investment related problems in a company. Assets represent investment (or uses) of funds. Investment decision includes the decisions primarily relating to assets composition- fixed as well as current assets.

2) Financing Decision

The second function of financial management deals with financing pattern of the firm. The financing decision is mainly concerned with identification of sources of finance and determining financing mix and cultivating sources of funds and raising funds. The two main sources of funds are shareholders funds (owners' equity) and borrowed funds. The cost of funds, determination of debt equity mix, impact of tax, depreciation, consideration of control and financial strain, interest rate and inflation are some of the factors that affect the financing decision. A balance is to be maintained between owners' funds and outsiders' funds and long term and short term funds.

A firm usually makes use of both internal and external funds. The employment of these sources in various combinations is called 'financial leverage'. Different types of analysis are required for this decision e.g., leverage analysis, EBIT – EPS analysis.

Dividend Decision

This decision relates to disposition of distributable profit between dividends and retained earnings. Retained earnings being a source of funding, dividend decision is concerned as part of financing decision of the firm. The impact of levels of dividends and retention of earnings on market value of share and future earnings of the firm, funds required for future expansion, impact of legal and cash flow constraints and the future boom or recession are some factors that affect this decision. Retention of earnings depends upon reinvestment opportunities available and the opportunity to generate satisfactory rate of return for the shareholders. Dividends may be paid in cash or in the form of bonus shares. These and other aspects of dividend decision will be explained in detail later in this course.

12.3 EVOLUTION OF FINANCIAL MANAGEMENT

Finance management emerged as a separate field from accounting in 1900. The enterprises became big with complex decision to be made and requirement for huge funds growth in technological innovations and creation of new industries resulted in further need of funds hence promoting the study of finance to emphasize on investment, liquidity and financing of the firms.

The depression of the 30's meant firms had to concentrate on defensive aspect of survival, preservation of liquidity and reconstruction. Business lacked funding, those institutions which were willing to lend required exorbitant interest rates. During those times finance manager had the responsibility of ensuring that the enterprise was having optimal usage of funds, avoiding unnecessary expansion programmes and maintaining the loyalty of existing customers. Use of computer brought better and fruitful analysis of financial performance. Introduction of various financial instruments in 1990s replacing hard cash as a transfer of funds and financial management emerged as a distinct management discipline and is linked to changes in business and socio-economic scenario, brought about by the advancements in information technology, multi division corporation and increasing global competition. The 21st century has brought

globalization through merger of firm, increased competition, access to international markets and need for quality products.

Financial management is important in all types of business as well as not for profit organizations like hospitals and schools. Sound financial management is necessary for the survival and growth of an enterprise.

Check Your Progress A

1) What is financial management?

.....
.....
.....
.....

2) List the functions of financial management.

.....
.....
.....
.....

3) Differentiate between financing decision and investment decision.

.....
.....
.....
.....

12.4 KEY ACTIVITIES OF FINANCIAL MANAGER

In a business firm the financial manager occupies a very important position. He is one of the dynamic members of corporate managerial team. His role, day-by-day, is becoming more and more significant.

The financial manager's task is not that of an accountant whose job is primarily to record the business transactions, prepare financial statements which show the working results of the organization for a given period and its financial condition at a given point of time. The accountant is not concerned with the management of funds which is a specialized task and he is seldom involved in the decision making process. In the modern day business, the role of financial manager has changed. Financial manager is expected to manage the funds in such a manner as to ensure their optimum utilization and their procurement in a manner that the risk, cost and control considerations are properly balanced in a given situation.

Financial manager is responsible for effective utilization of funds. He is to point out situations where the funds are being kept idle or where proper use of funds is not being made.

Important activities of the financial manager are: 1) estimating the requirement of funds; 2) decision regarding the capital structure; 3) investment decision; 4) dividend decisions; 5) supply

of funds to all part of the organization or cash management; 6) evaluating financial performance with respect to return on investment; 7) financial negotiations with banks, financial institutional and public depositors; 8) keeping touch with stock exchanges; and 9) maximizing both the return on ordinary shares and the total wealth of the company.

In the present context the financial manager provides leadership in the cost effective use of an organization's financial resources.

The responsibilities and duties of financial manager are indeed the organization-wide, He interacts with production manager for a new plant, for forecasting and planning with marketing manager, for inventory level with purchase manager and sales manager for receivables policy.

12.5 GOALS OF FINANCIAL MANGEMENT

A good goal must be clear, measureable and consistent. So must be the goal of financial management. A firm may have different goals e.g., production goals, sales goal, and financial management goals.

But what is the main goal of financial management? The main goal of financial management should be such that is directed to achieve the ultimate goal of a firm.

The ultimate goal, as a good consensus, of a firm is to maximize the shareholders wealth.

This in operational terms means:

- a) Maximization of profit
- b) Maximization of Return on capital employed
- c) Growth in earning per share or market value of a share or dividends
- d) Optimum level of leverage
- e) Minimization of costs of capital.

Let us examine in detail maximization of shareholders wealth as an ultimate goal of financial management.

Maximization of Shareholders' Wealth

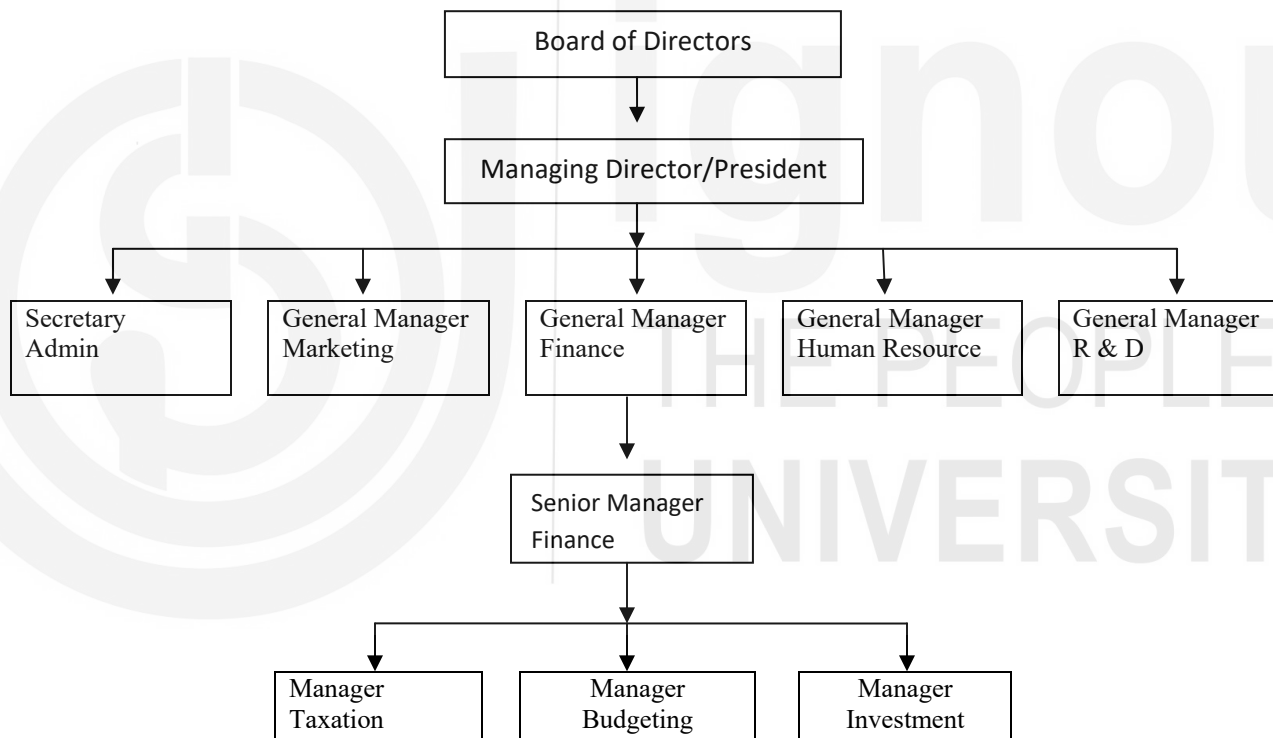
The separation of ownership from management and the increase in intensity of competition has lead to the redefinition of profit maximization objective of a firm. Financial theory, in general rests upon the promise that the objective of the firm should be maximizing the market value of the firm to the equity shareholders. It means maximizing the market value of its equity shares. The justification of these objectives is that it provides a rational guide for business decision making and helps in efficient allocation of resources. A second reason in favour of this objective is that equity shareholders provide risk (venture) capital for starting a company. They appoint the board of management. So this objective brings a responsibility on management to promote the welfare of equity shareholders.

The shareholders wealth can be maximized by maximizing value of shares of a firm. The economic value of the shareholders' wealth is the market price of the share which is the present

value of all future dividends and benefits expected from the firm. The underlying assumption in this approach is that shares are traded in efficient capital market where the effect of a decision is reflected in market price of a share. With this objective in view the management will allocate the available economic resources in the best possible way keeping in view the risk involved. This objective timely guides three functions of financial management (investment, financing and dividend decision). The main problem of this objective is that an efficient capital market must exist which can really discover and reflect time market price. Thus, wealth maximization of shareholders is the main objective, though profit maximization can be considered as a part of wealth maximization objective.

12.6 ORGANISATION OF FINANCE FUNCTIONS

An organization differs from company to company. An organization can be vertical horizontal or a circular. It can be on the basis of functions or divisions e.g. products or territories. However, a common type of organization on functional basis is as given below:



Under above type of organization each major function is organized as a separate department. Its emphasis is on specialization. Hence finance manager occupies a job of an expert. He not only supervises finance department but also coordinates activities with other departments. Thus, he plans, organizes, controls and administers funds used in the business.

12.7 CHALLENGES FOR FINANCIAL MANAGER

While mobilization of funds and investment of funds have been the prime responsibility of financial manager/CFO. Owing to momentous changes in the business environment particularly economic and financial, the nature of challenges faced by financial manager has undergone immense shifts. The first and the foremost challenge is shareholders value creation. The shareholders, even the minority, have become demanding and vocal. They are no more satisfied with increasing sales, or decreasing costs; they want growing total shareholders return. As a consequence, the financial manager has to concentrate not only on earning per share but also on market capitalization.

The next important challenge comes from investors, both individual and institutional. Indeed the rise of the mutual funds signifies the major departure in the financial environment of business. In addition to the traditional skills of financial manager, a good understanding of the psychology of investors has emerged as the prime skill for them.

The third major challenge faced by financial manager is dealing with continually increasing risks in the market. With the onset of liberalization, privatization and globalization of business, the business risks have multiplied. The generation of risk adjusted return has emerged as a newer measures of performance of financial manager. A reading into a financial magazine brought out altogether a new challenge being faced by the financial managers. That magazine had mentioned that a research into the expectations of CEOs from financial managers is to make them look smart. Looking smart essentially means to be able to base your arguments on facts and figures. He/She should have sound interpersonal and communication skills, and overall organizational knowledge. Financial manger is expected to continually generate appropriate measures of performance for managerial performance evaluation within the company and reporting to the external shareholders etc. Therefore, rapid technological advancement, complied with large scale investment made by MNCs. Merger movements and wide-spread diversification of products have made his job demanding. But rewards, financial or otherwise can be great for those who enjoy the challenges. All in all financial manager is in the new world of business and finance.

Check Your Progress B

- 1) List the key activities of a financial manager?

.....
.....
.....

- 2) What is risk?

.....
.....
.....
3) Define return.

.....
.....
.....

12.8 LET US SUM UP

Financial management is also called corporate finance or managerial finance. It's mainly concerned with acquisition of funds and use of funds by a business firm. The goal of financial management is maximization of shareholders wealth, though profit maximizations can be a part of wealth maximization objective. There are two basic dimensions of financial analysis: risk and return, higher the risk higher the return, and higher the market value; and lower the risk, lower the return and lower the market value. Financial manager is concerned with planning and allocation of resources etc. There are many key activities of financial manager. In the era of globalization, privatization and liberalization financial manager has to face many challenges.

12.9 KEY WORDS

Earnings per share: Earnings after taxes divided by the number of common share outstanding.

Financial Management: The acquisition, financing and management of assets.

Profit Maximization: Maximizing a firm's earnings after taxes.

Return : Gain or loss expected over a given period of time.

Risk : Variability of expected return over an investment.

12.10 TERMINAL QUESTIONS/EXERCISES

- 1) Critically evaluate the goals of financial management.
- 2) Explain basic finance functions. How do they evolve risk-return trade off?
- 3) Discuss the challenges faced by the financial manager in India.

UNIT 13 CAPITAL STRUCTURE DECISIONS

Objectives

The objectives of this unit are to:

- define and distinguish capital structure
- explain briefly the important Characteristics of various long term sources of funds.
- dilate upon the criteria for determining pattern of capital structure.
- analyse EBIT-EPS and ROI-ROE relationship. examine critically theories of capital structure-decision identify the factors influencing capital structure decision evaluate the relevance of debt equity ratio in public enterprises.

Structure

- 13.1 Introduction
- 13.2 Conceptual Framework
- 13.3 Characteristics of Important long term sources of Funds
- 13.4 Criteria for determining pattern of Capital Structure
- 13.5 Risk and Capital Structure
 - 13.5.1 EBIT – EPS Analysis
 - 13.5.2 ROI – ROE Analysis
- 13.6 Theories of Capital Structure Decision
 - 13.6.1 Net Income Approach
 - 13.6.2 Net Operating Income Approach
 - 13.6.3 M-M Approach
 - 13.6.4 Traditional Approach
- 13.7 Factors Influencing Pattern of Capital Structure
- 13.8 Relevance of Debt-equity ratio in Public enterprises
- 13.9 Summary
- 13.10 Key words
- 13.11 Self Assessment Questions/Exercises
- 13.12 Further Readings

13.1 INTRODUCTION

Planning the capital structure is one of the most complex areas of financial decision making because of the inter-relationships among components of the capital structure and also its relationship to risk, return and value of the firm. For a student of finance, the term capital usually denotes the long-term funds of the firm. Debt capital and ownership capital are the two basic components of capital. Equity capital, as one of the components of capitalization, comprises equity share capital and retained earnings. Preference share capital is another distinguishing component of total capital. In this unit, characteristics of important long-term sources of funds, EBIT-EPS analysis, ROI-ROE analysis, factors influencing capital structure, theories of capital structure decision, etc are narrated briefly. In the end, relevance of debt-equity ratio in public enterprises is also discussed.

13.2 CONCEPTUAL FRAMEWORK

According to Gerstenberg, “ capital structure refers to the make up of a firm’s capitalization”. In other words, it represents the mix of different sources of long-term funds. E.F. Brigham defines the term as the percentage share of each type of capital used by the firm-Debt, preference share capital and equity capital (equity share capital paid up plus retained earnings). According to E.W.Walker, concept of capital structure includes the following:

The proportion of long-term loans;

The proportion of equity capital and

The proportion of short-term obligations

In general, the experts in finance define the term capital structure to include only long-term debt and total Stockholders’ investment.

Financial structure means the composition of the entire left hand side (liabilities side) of the balance sheet. Financial structure refers to all the financial resources marshalled by the firm. It will include all forms of long as well as short-term debts and equity.

Thus, practically speaking, there is no difference between the capital structure (as defined by walker) and financial structure.

In brief,

Capital structure = proportions of all types of Long-Term capital

Financial structure = Proportions of all types of Long-Term and Short-Term capital

Capitalisation = Total Long-Term capital

13.3 CHARACTERISTICS OF IMPORTANT LONG-TERM SOURCES OF FUNDS

The four major sources of Long-Term funds in a firm are equity(or ordinary) shares preference shares, retained earnings and long term debt. Many financial analysts and managers tend to think of preference shares as a substitute of debt, as the amount of dividend to be paid is fixed. The difference is that the preference dividend, unlike debt interest, is not a tax- deductible expense. It does not have a fixed maturity date. Preference shareholders have a prior claim to receive income from the firm’s earning through dividends. Convertible debentures have the features of both debt and equity capital.

The main focus in the discussion that follows is on deciding the mix of debt and equity which a firm should employ in order to maximize shareholder wealth. Because of the secondary position relative to debt, suppliers of equity capital take greater risk and therefore, must be compensated with higher expected returns. The distinguishing characteristics of debt, preference share capital, equity share capital and Retained Earnings are summarized in Table 13.1.

13.4 CRITERIA FOR DETERMINING PATTERN OF CAPITAL STRUCTURE

While choosing a suitable pattern of capital structure for the firm, finance manager should keep into consideration certain fundamental principles. These principles are militant to each other. A prudent finance manager strikes golden mean among them by giving proper weightage to them.

Table 13.1: Characteristics of Long-Term Sources of Funds

| Debt | Preference Share Capitals | Equity share capital | Retained Earnings |
|--|--|---|---|
| 1. Firm must pay back money with interest. | 1. Preference dividends are limited in amount to rate specified in the agreement. | 1. Money is raised by selling ownership rights. | 1. Lower amount of money for current dividends but can increase future dividends. |
| 2. Interest rate is based on risk of Principal and interest payments as perceived by lenders | 2. Dividends are not legally required to be paid. But dividend on equity shares can not be paid unless preference shareholders are paid dividend. Now payment of dividend to preference shareholders for a number of years gives them the voting rights. | 2. Value of the share is determined by investors. | 2. Shareholders forgo dividend income but they do not lose ownership rights, if new equity shares are issued. |
| 3. Amount of money to be repaid is specified by debt contract. | 3. No maturity but usually callable | 3. Dividends are not contractually payable. No maturity. | 3. Funds are internal No need for external involvement. |
| 4. Lenders can take action to get their money back | 4. Usually no voting rights except as per (2) above. | 4. Voting rights can create change in ownership. | 4. Cost of issuing securities is avoided. |
| 5. Lenders get preferred treatment in liquidation | 5. Preference share-holders come next, when lenders are paid in liquidation. | 5. Equity shareholders get the residual assets prorata after lenders & preference shareholders claims are met in liquidation. | 5. It is related to dividend policy decisions. |
| 6. Interest payments are tax-deductible | 6. preference Dividends are not tax-deductible. | 6. Equity dividends are not tax-deductible, | |

Activity 1

1) What is capital structure? How is it different from financial structure?

.....
.....
.....
.....

2) Bring out in brief, characteristics of equity share capital

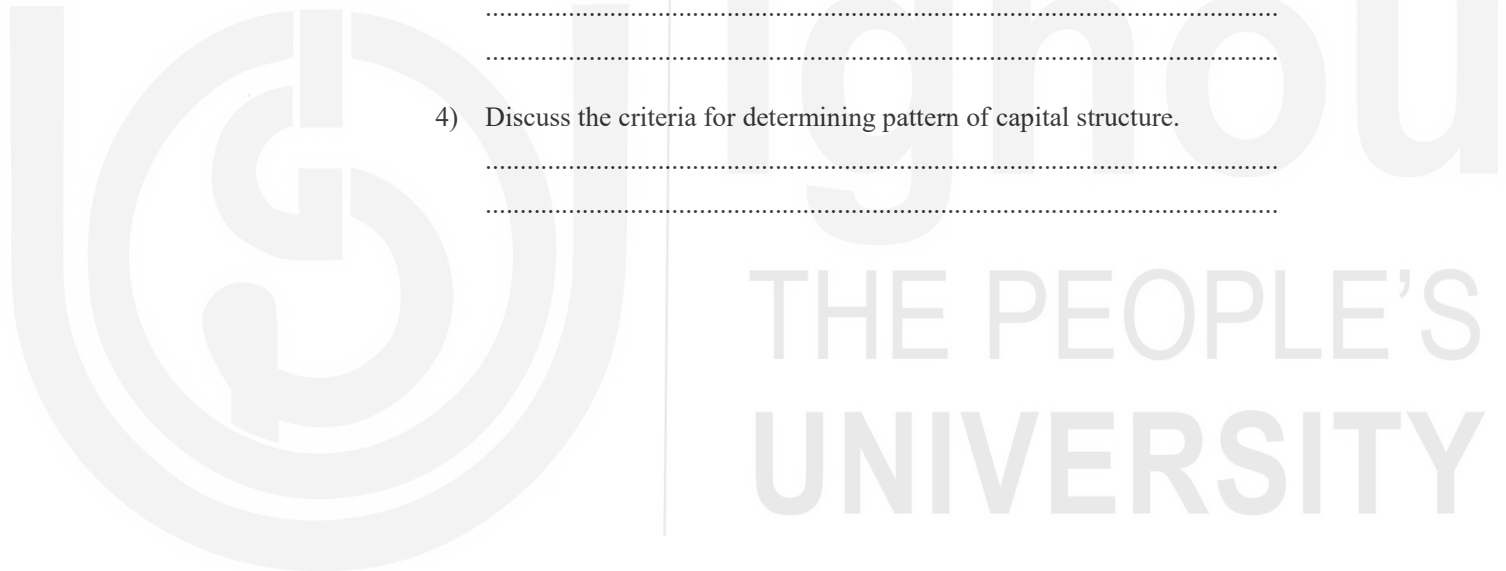
.....
.....
.....
.....

3) List out sources of long – term finance used by a company of India origin.

.....
.....
.....
.....

4) Discuss the criteria for determining pattern of capital structure.

.....
.....



13.5 RISK AND CAPITAL STRUCTURE:

A firm's capital structure should be developed keeping in view risk focus because the risk affects the value of the firm. Risk can be considered in two ways:

- a) The capital structure should be consistent with the business risk of the firm, and
- b) The capital structure results in a certain level of financial risk to the firm.

Business risk is the relationship between the firm's sales and its earnings before interest and taxes (EBIT). In general, the greater the firm's operating leverage i.e. the use of fixed operating costs—the higher is the business risk. In addition to operating leverage, revenue stability and cost stability also affect the business risk of the firm. The revenue stability means the variability of the firm's sales revenues which depends on the demand and the price of the firm's products. Cost stability refers to the relative predictability of input prices such as labour and material. The more predictable these prices are the less is the business risk. Business risk varies among firms. Whatever their lines of business, the business risk is not affected by capital structure decisions. In fact, capital structure decisions are influenced by the business risk. Firms with high business risks, tend to have less fixed operating costs. Let us take an example to illustrate the implications of business risk for capital structure decisions.

Example

Raj Cosmetics Ltd., engaged in the process of planning its capital structure, has obtained estimates of sales and associated levels of EBIT. The sales forecasting group feels that there is a 25 percent chance that sales will be Rs. 4,00,000 a 50 percent chance that sales will be Rs. 6,00,000 and 25 percent the sales will total Rs. 8,00,000. These data are summarised Table 13.2.

Table 13.2: Estimated sales and associated levels of EBIT

| | (000) | | |
|---|-------|------|------|
| Probability of Sales | 0.25 | 0.50 | 0.25 |
| Sales | 400 | 600 | 800 |
| -Variable operating costs (50% of Sales) | 200 | 300 | 400 |
| -Fixed Operating Costs | 200 | 200 | 200 |
| Earnings before interest and taxes (EBIT) | 0 | 100 | 200 |

The EBIT data, i.e. Rs.0,100 or 200 thousands at probability levels of 25%, 50% and 25% respectively reflect the business risk of the firm and has to be taken into consideration when designing a capital structure.

The firm's capital structure affects the firm's financial risk arising out of the firm's use of financial leverage which is reflected in the relationship between EBIT and EPS. The more fixed cost financing, i.e. debt and preference capital in the firm's capital structure, the greater is the financial risk. Suppliers of funds will raise the cost of funds if the financial risk increases. Let us take an example to illustrate this point.

Raj Cosmetics Let. Is now considering seven – alternative capital structure. Stated in terms of debt ratio) i.e. Percentage of debt in the total capital) these are 0,10,20,30,40,50, and 60, per cent. Assume that (1) the firm has no current

liabilities, (2) that its capital structure currently contains all equity (25,000 equity shares are outstanding at Rs. 20 par value), and (3) the total amount of capital remains constant at Rs.5,00,000.

Table 13.3: Capital Structure Associated with Alternative Debt Ratios

| Debt Ratio% | Total Assests (Rs.000) | Debt (Rs. 000) | Equity (Rs. 000) 4=2-3 | Equity Shares outstanding (Numbers 000) 5 = (4 / Rs. 20) |
|-------------|------------------------|----------------|---------------------------|---|
| 1 | 2 | 3 | 4=2-3 | 5 = (4 / Rs. 20) |
| 0 | 500 | 0 | 500 | 25.00 |
| 10 | 500 | 50 | 450 | 22.50 |
| 20 | 500 | 100 | 400 | 20.00 |
| 30 | 500 | 150 | 350 | 17.50 |

As debt increases, the interest rate also increase with the increase in financial leverage (i.e. debt ratios). Hence the total interest on all debt also increase (as successive debenture issues carry higher interest rates) as shown in Table 13.4.

Table 13.4: Interest amount at Various levels of Debt

| Capital Structure % of Debt 1 | Debt (Rs.000) (1) | Interest Rate on all debt % (2) | Interest amount (Rs.000) (3 = 1*2) |
|-------------------------------|-------------------|---------------------------------|------------------------------------|
| 0 | 0 | 0.0 | 0.00 |
| 10 | 50 | 9.0 | 4.50 |
| 20 | 100 | 9.5 | 9.50 |
| 30 | 150 | 10.0 | 15.00 |
| 40 | 200 | 11.0 | 22.00 |
| 50 | 250 | 13.5 | 33.75 |
| 60 | 300 | 15.5 | 49.50 |

13.5.1 EBIT-EPS Analysis for Capital Structure

Using the levels of EBIT in table 13.2, number of equity shares in the columns 5 of table 13.3. and interest values calculated in table 13.4, the calculation of EPS for debt ratios of 0,30, and 60 percent respectively is shown in Table 13.5. the effective tax rate is assumed to be 40 percent.

Table 13.5: Calculation of EPS for alternative Debt ratio

| Probability | 0.25 | 0.50 | 0.25 |
|---------------------------------|---------|--------|--------|
| When Debt ratio = | | | |
| Less Interest (Table 3.4) | 0.00 | 100.00 | 200.00 |
| Earnings after taxes | 0.00 | 0.00 | 0.00 |
| Less Taxes (0.40) | 0.00 | 100.00 | 200.00 |
| Earnings after taxes | 0.00 | 40.00 | 80.00 |
| EPS (25,000) shares (table 3.3) | 0.00 | 60.00 | 120.00 |
| | 0.00 | 2.40 | 4.80 |
| When Debt ratio = 30% | | | |
| EBIT | 0.00 | 100.00 | 200.00 |
| Less Interest | 15.00 | 15.00 | 15.00 |
| Earnings before taxes | (15.00) | 85.00 | 185.00 |
| Less Taxes (0.40) | (6.00) | 34.00 | 74.00 |
| Earnings after taxes | (9.00) | 51.00 | 111.00 |
| EPS (17,500 shares) | (0.51) | 2.91 | 6.34 |

| | | | |
|-----------------------|-------------|--------|--------|
| When Debt ratio = 60% | | | |
| EBIT | 0.00 | 100.00 | 200.00 |
| Less Interest | 49.50 | 49.50 | 49.0 |
| | — | — | — |
| Earnings before taxes | (49.50) | 50.50 | 150.50 |
| Less Taxes (0.40) | (19.80) (a) | 20.20 | 60.20 |
| | — | — | — |
| Earnings after taxes | (29.70) | 30.30 | 90.30 |
| EPS (10,000 Shares) | 2.97 | 3.03 | 9.03 |

Notes: a) It is assumed that the firm received the tax benefits from its loss in the current period, as a result of carrying forward and setting off the loss against in the following periods.

Following the same procedure as in Table 13.5 we may obtain EPS for other debt ratios. Table 13.6 gives expected EPS at 50% probability level (to be viewed as typical level) for seven alternative debt ratios along with the Standard deviation and co-efficient of variation of expected EPS.

Table 13.6: Expected EPS, Standard. Deviation and Co-efficient of variation of EPS at 50% probability level for alternative debt ratios

| Capital structure debt ratio (%) | Expected EPS (Rs.) (1) | Standard deviation of EPS (Rs.) (2) | Co-efficient of variation (2) + (1) = (3) |
|----------------------------------|------------------------|-------------------------------------|---|
| 0 | 2.40 | 1.70 | 0.71 |
| 10 | 2.55 | 1.88 | 0.74 |
| 20 | 2.72 | 2.13 | 0.78 |
| 30 | 2.91 | 2.42 | 0.83 |
| 40 | 3.12 | 2.83 | 0.91 |
| 50 | 3.18 | 3.39 | 1.07 |
| 60 | 3.03 | 4.24 | 1.40 |

Notes: The standard deviation () represents the square root of the sum of the product of each deviation from the mean of expected value squared and the associated probability of occurrence of each outcome. This is the most common statistical measure of assets risk.

The co-efficient of variation is calculated by dividing the standard deviation for an asset by its mean or expected value. The higher the co-efficient of variation, the riskier is the asset.

Table 13.6 shows that as the firm's financial leverage increases, its co-efficient of variation of EPS also increases, signifying that the higher level of risk is associated with higher levels of financial leverage.

The relative risk of the two of the capital structures at debt ratio=0% and 60% respectively is illustrated in Figure 13.1 by showing the subjective probability distribution of

EPS associated with each of them. As the expected level of EPS increase with increasing financial leverage, the risk also increases which is reflected in the relative dispersion of each of the distributions. As the higher levels of financial EPS increase. There are chances that there will be negative EPS depending on the probabilities of occurrence of the expected results.

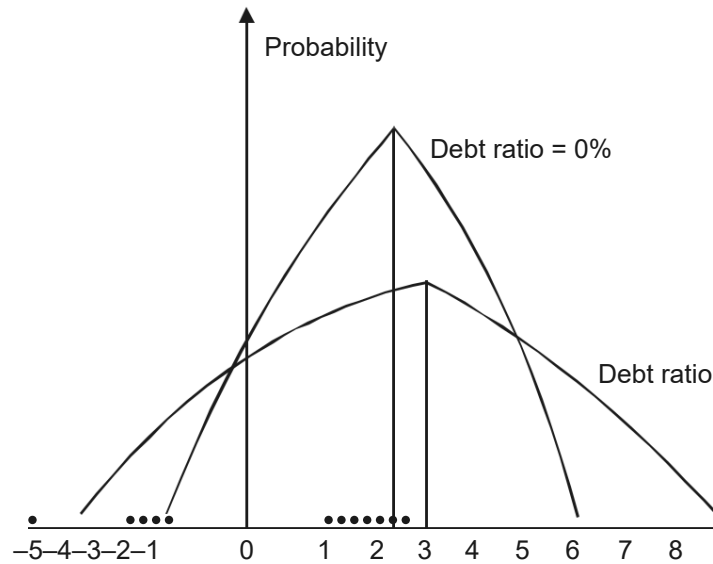
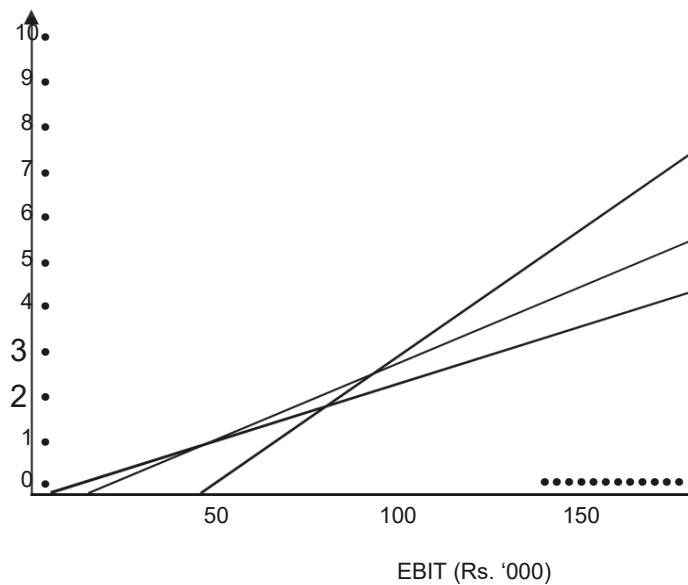


Figure 13.1: A Graphic Presentation of Probability Distribution of EPS at Alternative Debt Ratios.

The EBIT –EPS analysis helps in choosing the capital structure which maximizes EPS over the expected range of EBIT. Since EBIT is one of the major factors which affects the market value of the firm’s shares, EPS can as well be used to measure the effect of various capital structure on shareholders’ wealth. The relationship between EBIT and EPS of the firm to analyse the effect of capital structure on results to the shareholders has been graphically shown in Figure 13.2 where data from Table 13.7 are used.

Table 13.7 : EBIT-EPS Coordinates (Selected Capital Structures)

| Capital structure debt ratio (%) | EBIT | |
|----------------------------------|--------------------|-------------|
| | Rs.1,00,000 | Rs.2,00,000 |
| | Earnings per share | |
| 0 | 2.40 | 4.80 |
| 30 | 2.91 | 6.34 |
| 60 | 3.03 | 9.03 |



Figures 13.2: A Graphic comparison of selected structures for Raj Cosmetics Ltd.

Expected earnings before interest and taxes are assumed to be constant because only the effect of financing costs such as interest and preference dividends on equity shareholders' earnings is to be analysed. Thus, the business risk is assumed constant.

Graphically, the risk of each capital structure can be seen in the context of the financial break even point. (i.e. EBIT-axis intercept). Below the x-axis, negative EPS would result. The higher the financial break even point and the steeper the slope of the capital structure line, the greater the financial risk.

The assessment of the capital structure can also be made by using ratios. With increased financial leverage, the ability of the firm to service its debt decreases. Thus, the times Earned Interest Ratio (i.e. EBIT divided by interest) ratio also measures firm's financial leverage and associated risk.

13.5.2 ROI-ROE Analysis

In the preceding section, we looked at the relationship between EBIT and EPS. Pursuing a similar type of analysis, we may look at the relationship between the ROI and ROE for different levels of financial leverage.

Example:

Raj Ltd., which requires an investment outlay of Rs. 200 lakhs, is considering two capital structures propositions:

Capital Structure X
(Rs. in lakhs)

Equity 200
Debt 0

Tax rate = 50 percent
Cost of Debt = 12 percent

Based on the above information, the relationship between ROI and ROE would be as shown in Table 13.8.

Capital Structure Y
(Rs. in lakhs)

Equity 100
Debt 100

Table 13.8: Relationship between ROI and ROE under capital structures X and Y

| Particulars | ROI | EBIT | Int. | Profit before tax | Profit after tax | Tax | Return on Equity |
|---------------------|-----|------|------|-------------------|------------------|-----|------------------|
| Capital Structure X | 5% | 10 | 0 | 10 | 5 | 5 | 2.5% |
| | 10% | 20 | 0 | 20 | 10 | 10 | 5.0% |
| | 15% | 30 | 0 | 30 | 15 | 15 | 7.5% |
| | 20% | 40 | 0 | 40 | 20 | 20 | 10.0% |
| | 25% | 50 | 0 | 50 | 25 | 25 | 12.5% |
| Capital Structure Y | 5% | 10 | 10 | 0 | 0 | 0 | 0.0% |
| | 10% | 20 | 10 | 10 | 5 | 5 | 5.0% |
| | 15% | 30 | 10 | 20 | 10 | 10 | 10.0% |
| | 20% | 40 | 10 | 30 | 15 | 15 | 15.0% |
| | 25% | 50 | 10 | 40 | 20 | 20 | 20.5% |

Return on Equity is equity earnings divided by Net worth. Looking at the relationship between ROI and ROE, we find that

- (1) The ROI under capital structure X is higher than the ROE under capital structure Y (ROI is less than the cost of Debt).
- (2) The indifference value of ROI is equal to the cost of Debt.
- (3) The ROE under capital structure X (ROI is more than the cost of Debt).

Mathematically this relationship can be expressed as:

$$ROE = [ROI + (ROI-r) D/E] (1-t)$$

Where r = Cost of Debt

D/E = Debt- Equity Ratio

t = tax rate

Applying the above equation when D/E Ratio is 1, we may calculate the value of ROE for two values of ROI namely, 15 percent and 20 percent.

$$ROI = 15\% \quad ROE = [15+(15-10) 1]0.5 = 10 \%$$

$$ROI = 20\% \quad ROE = [20+(20-10) 1]0.5 = 15\%$$

The results are the same as we see in Table 3.8.

Activity 2

1. Leverage decision is the same as capital structure decision. Do you agree? Give one reason.

.....

.....

.....

.....

2. Distinguish between EBIT and EPS.

.....

.....

.....

.....

3. Collect the figures of any company and do the EBIT-EPS analysis by making necessary assumptions.

.....

.....

.....

.....

4. With a real company example make ROI-ROE analysis.

.....

.....

.....

.....

13.6 THEORIES OF CAPITAL STRUCTURE

A firm should try to maintain an optimum capital structure with a view to maintaining financial stability. The optimum capital structure is obtained when the market value per equity share is the maximum. In order to achieve the goal of identifying an optimum debt-equity mix, it is necessary for the finance manager to be familiar with the basic theories underlying the capital structure of corporate enterprises.

1. N I Approach
2. NOI Approach

3. MM Approach
4. Traditional Approach

Common assumptions of the theories of capital structure decision are as follows:

- (i) Preference share capital is merged with debt. The firm employs only debt and equity capital.
- (ii) There are no corporate taxes.
- (iii) EBIT is not expected to grow.
- (iv) The firm's total financing remains constant.
- (v) The business risk does not change with the growth of business firm.
- (vi) All investors have the same subjective probability distribution of the future expected earnings for a given firm.

13.6.1 Net Income (NI) Theory

According to this approach, capital structure decision is relevant to the valuation of the firm in as much as change in the pattern of capitalization brings about corresponding change in the overall cost of capital and total value of the firm. This theory, also known as fixed ke theory, was propounded by David Durand.

The critical assumptions of this theory are

- (i) There are no corporate taxes.
- (ii) The debt content does not change risk perception of the investors.
- (iii) The cost of debt is less than the cost of equity.

The theory works like this.

“As the proportion of cheaper debt funds in the capital structure increases, the weighted average cost of capital decreases and approaches the cost of debt.

This theory recommends 100% debt financing is optimal capital structure. The following are the strengths of NoI approach:

- (i) it tries to explain the effects of borrowings on overall cost of capital.
- (ii) It explains and emphasizes on favourable financial leverage.
- (iii) However, the theory ignores the risk consideration.

13.6.2 Net Operating Income (NoI) approach

This approach, also propounded by Durand, is just opposite of Net Income (NI) approach. According to this approach overall cost of capital and value of the firm are independent of capital structure decision and change in degree of financial leverage does not bring about and change in value of the firm and cost of capital.

The approach is based on the following assumptions:

- (i) The overall cost of capital (k_0) remains constant for all degrees of debt equity mix or leverage.
- (ii) There are no corporate taxes.
- (iii) The market capitalizes the value of the firm as a whole.
- (iv) The advantage of debt is set off exactly by increase in the equity capitalization rate.

According to the NOI Approach, the value of a firm can be determined by the following equation;

$$V = \frac{EBIT}{K_O}$$

Where:

- V = Value of firm;
- K_O = Overall cost of capital
- EBIT = Earnings before interest and tax.

Thus, according to Net Operating Income (NOI) Approach, any capital structure will be optimum.

The following are the strengths of NOI approach:

- (i) it emphasizes on the role of NOI in the determination of total value of the firm,
- (ii) According to this theory, new investment proposals should be based on NOI approach

This theory seems to ignore the behavioral aspect of financing function of management.

13.6.3 Modiglian- Miller (MM) Theory

The Modigliani-Miller (MM) approach is similar to the Net Operating Income (NOI) approach. It supports the NOI approach providing behavioural justification for the independence of the total valuation and the cost of capital of the firm from its capital structure. In other words, MM approach maintains that the weighted average cost of capital does not change with change in the capital structure of the firm.

The following are the three basic propositions of the MM approach:

- (i) The overall cost of capital (K_O) and the value of the firm (V) are independent of the capital structure.
- (ii) The cost of equity (KE) is equal to capitalization rate of a pure equity stream plus a premium for the financial risk.
- (iii) The cut-off rate for investment purposes is completely independent of the way in which an investment is financed.

The MM approach is subject to the following assumptions:

1. Capital markets are perfect.
2. All firms within the same class will have the same degree of business risk.
3. All investors have the same expectation of a firm's net operating income (EBIT).
4. The dividend pay-out ratio is 100%.
5. There are no corporate taxes. However, this assumption was removed later.

The "arbitrage process" is the operational justification of MM hypothesis. The term 'Arbitrage' refers to an act of buying an asset or security in one market having lower price and selling it in another market at a higher price. The consequence of such action is that the market price of the securities of the two firms exactly similar in all respects except in their capital structures can not for long remain different in different markets. Thus, arbitrage process

restores equilibrium in value of securities. This is because in case the market value of the two firms which are equal in all overvalued firm would sell their shares, borrow additional funds on personal account and invest in the undervalued firm in order to obtain the same return on smaller investment outlay. The use of debt by the investor for arbitrage is termed as 'home made' or 'personal leverage'.

The following are limitations of MM's theory-

- (i) Rates of interest are not the same for the individuals and the firms.
- (ii) Transactional costs are involved.
- (iii) Home made leverage is not perfect substitute for corporate leverage.
- (iv) The effectiveness of arbitrage process is limited.

Since corporate taxes do exist, MM agreed in 1963 that the value of the firm will increase and overall cost of capital will decline because of tax deductibility of interest payments. A levered firm should have, therefore, a greater market value as compared to an unlevered firm. The value of the levered firm would exceed that of the unlevered firm by an amount equal to the levered firm's debt multiplied by the tax rate. The formula is-

$$V_i = V_u + Bt$$

Where :

- V_i = Value of levered firm
 V_u = Value of an unlevered firm
 B = Amount of Debt and
 t = Tax rate

13.6.4 Traditional Approach

The traditional theory assumes changes in K_e at different levels of debt equity rate. It is the middle of the two extremes of NI and NOI.

Beyond a particular point of debt-equity mix, k_e rises at an increasing rate.

There are three stages:-

Stage I – Introduction of debt-Net Income rises; cost of equity capital rises because of risk but less than earnings rate leading to decline in overall cost of capital and increase in Market value.

Stage II – Further Application of debt: cost of equity capital rises-net income – debt cost increases – value same.

Stage III – Further Application of debt – cost of equity capital is very high – value goes down.

Example

Raj Cosmetics Ltd. has estimated the following rates of return (Column (3) of the Table 3.9. Table 3.9 also gives the seven capital structures from the debt ratios ranging from 0% to 60% and expected EPS in Rs. (from Table 3.6).

From these data, it is possible to work out the expected share values in each of the alternative capital structures. Calculations are set out in column 4 of the Table 3.9.

Table 13.9: Calculation of Share Value Estimate Associated with Alternative Capital Structures for Raj Cosmetics Ltd.

| Capital structure debt ratio (%) | Expected EPS (Rs.) (From Table 3.6) | Estimated required rate of return Esti. by the Co.) | Estimated Share Value (Rs.) |
|----------------------------------|-------------------------------------|---|-----------------------------|
| (1) | (2) | (3) | (4) |
| 0 | 2.40 | 0.115 | 20.87 |
| 10 | 2.55 | 0.117 | 21.79 |
| 20 | 2.72 | 0.121 | 22.48 |
| 30 | 2.91 | 0.125 | 23.28 |
| 40 | 3.12 | 0.140 | 22.29 |
| 50 | 3.18 | 0.165 | 19.27 |
| 60 | 3.03 | 0.190 | 15.95 |

Table 13.9 shows that the maximum share value occurs at the capital structure associated with the debt ratio of 30%. This is the optimal capital structure. It is noticeable that EPS is maximized at 50% debt ratio, while the share value is maximized at 30% debt ratio. This discrepancy arises because EPS maximization approach does not consider the risk as reflected in required rates of return.

In addition to the analysis of the EBIT-EPS, required rates of returns and share value, certain other factors are also taken into account in determining the capital structure for the firm. These are listed below:

- Adequacy of cash flow to service debt and preference shares
- Having stable and predictable revenues
- Limitations imposed by previous contractual obligations
- Management Preference and attitudes towards risk
- Assessment of the firm’s risk by financial institutions and other agencies
- Capital market conditions and investor preferences
- Considerations of corporate control.

Activity 3

- 1) In what manner are the corporate taxes relevant to capital structure decision?

- 2) Contrast traditional and M-M position regarding optimal capital structure.

- 3) Name of single most important factor which determines the capital structure of a company.

4) Try to know from Finance Manager of any two companies:

i) What is their present capital structure?

.....
.....
.....
.....

ii) What are the factors which determine their capital structure?

.....
.....
.....
.....

iii) Do they intend to change their capital structure in the near future ?
why?

.....
.....
.....
.....

5) Show arbitrage process with an example.

.....
.....
.....
.....

13.7 FACTORS INFLUENCING PATTERN OF CAPITAL STRUCTURE

Following are the major factors which should be kept in view while determining the capital structure of a company:

(1) Size of Business

Smaller firms confront tremendous problems in assembling funds because of their poor creditworthiness. Investors feel loath in investing their money in securities of these firms. Lenders prescribe highly restrictive terms in lending. In view of this, special attention should be paid to maneuverability principle. This is why common stock represents major portion of this capital in smaller concerns. Larger concerns have to employ different types of securities to procure desired amount of funds of reasonable cost because they find it very difficult to raise capital at reasonable cost of demand for funds is restricted to a single source.

(2) Form of Business Organisation

Control principle should be given higher weightage in private limited companies where ownership is closely held in a few hands. This may not be so imminent in the case of public limited companies whose shareholders are large in number. In proprietorship or partnership form of organisation, control is undoubtedly an important consideration because control is concentrated in a proprietor or a few partners.

(3) Nature of Enterprise

Business enterprises which have stability in their earnings or which enjoy monopoly regarding their products may go for debentures or preference shares since they will have adequate profits to meet the recurring cost of interest/fixed dividend. This is true in case of public utility concerns. On the other hand, companies which do not have this advantage should rely on equity share capital to a greater extent for raising their funds. This is, particularly, true in case of manufacturing enterprises.

(4) Stability of earnings

With greater stability in sales and earnings a company can insist on the fixed obligation debt with less risk. But a company with irregular income will not choose to burden itself with fixed charge. Such company should depend upon the sale of stock to raise capital.

(5) Age of Company

Younger companies generally find it difficult to raise capital in the initial years because of greater uncertainty involved in them and also because they are not known to suppliers of funds. It would therefore, be worthwhile for such companies accord to higher weightage to maneuverability factor. In a sharper contrast to this, established companies with good earnings record are always in comfortable position to raise capital from whatever sources they like. Leverage principle should be insisted upon in such concerns.

(6) Purpose of Financing

In case funds are required for some directly productive purposes the company can afford to raise the funds by issue of debentures. On the other hand, if the funds are required for non-productive purposes, providing more welfare facilities to the employees the company should raise the funds by issue of equity shares.

(7) Market Sentiments

Times of boom investors generally want to have absolute safety. In such cases, it will be appropriate to raise funds by issue of debentures. At other periods, people may be interested in earnings high speculative incomes; at such times, it will be appropriate to raise funds by issue of equity shares.

(8) Credit Standing

A company with high credit standing has greater ability to adjust sources of funds upwards or downwards in response to major changes in need for funds than one with poor credit standing. In the former case the management should pay greater attention to maneuverability factor.

(9) Period of Finance

The period for which finance is required also affects the determination of capital structure of companies. In case, funds are required, say, for 5 to 10 years, it will be appropriate to raise them by issue of debentures. However, if the funds are required more or less permanently, it will be appropriate to raise them by issue of equity shares.

(10) Legal Requirements

Companies Act, Banking Co. Act etc. influence the capital structure considerations. The relative weightage assigned to each of these factors will vary widely from company to company depending upon the characteristics of the company, the general economic conditions and the circumstances under

which the company is operating. Companies issue debentures and preference shares to enlarge the earnings on equity shares, while equity shares are issued to serve as a cushion to absorb the shocks of business cycles and to afford flexibility. Of course, greater the operating risk, the less debt the firm can use, hence, in spite of the fact that the debt is cheaper the company should use it with caution.

(11) Tax Considerations

The existing taxation provision makes debt more advantageous in relation to stock capital in as much as interest on bonds is a tax deductible expense whereas dividend is subject to tax. In view of prevailing corporate tax rates in India, the management would wish to raise degree of financial leverage by placing greater reliance on borrowing.

13.8 RELEVANCE OF DEBT – EQUITY RATIO IN PUBLIC ENTERPRISES

It is generally argued that the practical significance of the debt-equity ratio is limited in the case of public enterprises in many countries because most of the loans are derived from the government itself or from public sector financial institutions. The government as the owner as well as the lender, has access to all the information it needs about the financial health of the enterprise and does not need to refer to any favourable ratio to derive confidence before making loans to it. Even when the public enterprises are allowed to borrow from private banks or from foreign financial institutions, there is a government guarantee in one form or another that the loans will be removed and lightened by adoption of an appropriate policy measures.

It may, be concluded that the practical significance of the debt-equity ratio is limited in the case of public enterprise is not based on a complete appreciation of all the factors in which these enterprises have to operate in many developing countries. While the private sector analogy in this respect may have to be qualified suitably when applied to the public enterprise situation in a particular country, it will remain a useful indicator, both with the administrative ministers and with the enterprise managements, to assess the strength of their capital structures.

Activity 4

- 1) Bring out five factors that influence capital structure.

.....
.....
.....
.....

- 2) “Debt Equity Ratio is not relevant for public enterprises” Comment.

.....
.....
.....
.....



Ignou
THE PEOPLE'S
UNIVERSITY

13.9 SUMMARY

A firm's capital structure is determined by the mix of long-term debt and equity it uses in financing its operations. Financial structure means the composition of the entire left hand side of the balance sheet. The basic differences in debt (including preference shares) and equity capital are in respect of the voting rights, the claims on income and assets, and the tax treatment. Timing, flexibility, cost, risk and control principles are the criteria for determining pattern of capital structure.

A firm's capital structure should be consistent with its business risk and result in an acceptable financial risk. The EBIT-EPS analysis can be used to evaluate various capital structure in the light of the degree of financial risk and the returns to the equity shareholders. The EBIT-EPS analysis shows how the desirable capital structure gives the maximum EPS.

The mathematical relationship between ROI is

$$[(ROE + ROI - r) \quad D/E] (1-t)$$

NI and NOI theories of capital structures are extreme. The MM analysis suggests that the optimal capital structure does not matter and that as much debt as possible should be used because the interest is tax-deductible. The MM hypothesis is criticized because of its unreal assumptions. Tax adjustment makes it more realistic.

The traditional approach to capital structure indicates that the optimal capital structure for the firm is one in which the overall cost of capital is minimized and the share value is maximized.

The cost of debt increases beyond a certain level of leverage.

Certain qualitative considerations such as cash flow, corporate control, contractual obligations, management's risk tolerance, etc. are taken into consideration while determining the capital structure.

The practical significance of Debt-Equity ratio for public enterprises is limited and has different perspectives.

13.10 KEYWORDS

Capital Structure is the proportions of all types of long-term capital. Financial Structure is the proportions of all types of long-term and short-term capital.

EBIT = Earnings before Interest and taxes.

EPS = Earnings per share

NI Approach says more usage of debt will enhance the value of the firm.

NOI Approach says that the total value of the firm remains constant irrespective of the debt-equity mix. Arbitrage refers to an act of buying a security in one market having lower price and selling it in another market at a higher price. The consequence of such action is that the market price of the securities will become the same.

13.11 SELF ASSESSMENT QUESTIONS/EXERCISES

1. What is a firm's capital structure? How is it different from financial structure?
2. Under the traditional approach to capital structure, what happens to the cost of debt and cost of equity as the firm's financial leverage increases?
3. Explain ROI-ROE analysis.
4. Explain the EBIT-EPS approach to the capital structure. Are maximizing value and maximizing EPS the same?
5. Khosla Ltd. had made the following forecast of sales, with the associated probability of occurrence.

| Sales Rs. | Probability |
|-----------|-------------|
| 2,00,000 | 0.20 |
| 3,00,000 | 0.60 |
| 4,00,000 | 0.20 |

The company has fixed operating costs of Rs.1,00,000 per year and variable operating costs represent 40% of sales. The existing capital structure consists of 25,000 equity shares of Rs. 10 each. The market place has assigned the following discount rates to risky earnings per share.

| Co-efficient of variation of EPS | Estimated Required Returns % |
|----------------------------------|------------------------------|
| .43 | 15 |
| .47 | 16 |
| .51 | 17 |
| .56 | 18 |
| .60 | 22 |
| .64 | 24 |

The company is considering changing its capital structure by increasing debt in the capital structure vis-à-vis capital. Different debt ratios are considered, given here with the estimate of the required interest rate on all debt.

| Debt Ratio | Interest on all debt |
|------------|----------------------|
| 20% | 10% |
| 40% | 12% |
| 60% | 14% |

The tax rate is 40% percent.

- a) Calculate the expected earnings per share, the standard deviation of EPS and the co-efficient of variation of EPS for the three proposed capital structures.
- b) Determine the optimal capital structure, assuming (i) maximization of ePS and (ii) maximization of share value.
- c) Construct a graph showing relationship in (b).
6. Critically examine various theories of capital structure.
7. Narrate the factors influencing capital structure.
8. Explain the criteria for determining pattern of capital structure.
9. Discuss the relevance of debt-equity ratio for Indian Public Enterprises.
10. Assume the figures of an Indian company and examine the relevance of MM's theory of capital structure.

13.12 FURTHER READINGS

Dani, Hemant R. 1973, *Balance Sheets and How to Read Them*. Hemant R. Dani, Bombay,

Gitman Lawrence J. 1985, *Principles of Managerial Finance* Fourth Edition. Haper & Row Publishers, Singapore, New York.

Schall Lawrence D & Haley Charles W. 1986, *Introduction to Financial Management* Fourth (International student) edition, Mc-Graw Hill Book Co., New York.

Srivastava, R.M., 2002 *Financial Management*, Pragati Prakash, Meerut.

Srivastava R.M. 2003 *Financial Management and Pragati* Himalaya Publishing Housing Mumbai.

Chandra, P., 1995 *Fundamentals of Financial Management* Tata McGraw, New delhi.

Maheshwari, S.N., 1993 *Financial Management* Sultan chand & Sons.

Upadhyaya, K.M., 1985 *Financial Management* Kalyani Publishers, Ludhiana.

Pendey, I.M., 1993 *Financial Management*.



Objectives

The objectives of this unit are to:

- explain the importance of decisions regarding capital structure
- identify the factors that have bearing on determining the capital structure
- explain the concept of an appropriate capital structure

Structure

- 14.1 Introduction
- 14.2 What is Capital Structure ?
- 14.3 Features of an Appropriate Capital Structure
- 14.4 Determinants of Capital Structure
- 14.5 Summary
- 14.6 Key Words
- 14.7 Self-assessment Questions/Exercises
- 14.8 Further Readings

14.1 INTRODUCTION

Finance is an important input for any type of business and is needed for working capital and for permanent investment. The total funds employed in a business are obtained from various sources. A part of the funds are brought in by the owners and the rest is borrowed from others—individuals and institutions. While some of the funds are permanently held in business, such as share capital and reserves (owned funds), some others are held for a long period such as long-term borrowings or debentures, and still some other funds are in the nature of short-term borrowings. The entire composition of these funds constitute the overall financial structure of the firm. You are aware that short-term funds keep on shifting quite often. As such the proportion of various sources for short-term funds cannot perhaps be rigidly laid down. The firm has to follow a flexible approach. A more definite policy is often laid down for the composition of long-term funds, known as **capital structure**. More significant aspects of the policy are the debt equity ratio and the dividend decision. The latter affects the building up of retained earnings which is an important component of long-term owned funds. Since the permanent or long-term funds often occupy a large portion of total funds and involve long-term policy decision, the term **financial structure** is often used to mean the capital structure of the firm.

There are certain sources of long-term funds which are generally available to the corporate enterprises. The main sources are: share capital (owners' funds) and long-term debt including debentures (creditors' funds). The profit earned from operations are owners' funds—which may be retained in the business or distributed to the owners (shareholders) as dividend. The portion of profits retained in the business is a reinvestment of owners' funds. Hence, it is also a source of long-term funds. All these sources together are the main constituents of the capital of the business, that is, its capital structure.



14.2 WHAT IS CAPITAL STRUCTURE?

The term 'capital structure' represents the total long-term investment in a business firm. It includes funds raised through ordinary and preference shares, bonds, debentures, term loans from financial institutions, etc. Any earned revenue and capital 'surpluses are included.

Capital Structure Planning

Decision regarding what type of capital structure a company should have is of critical importance because of its potential impact on profitability and solvency. The small companies often do not plan their capital structure. The capital structure is allowed to develop without any formal planning. These companies may do well in the short-run, however, sooner or later they face considerable difficulties. The unplanned capital structure does not permit an economical use of funds for the company. A company should therefore plan its capital structure in such a way that it derives maximum advantage out of it and is able to adjust more easily to the changing conditions.

Instead of following any scientific procedure to find an appropriate proportion of different types of capital which will minimise the cost of capital and maximise the market value, a company may just either follow what other comparable companies do regarding capital structure or may consult some institutional lender and follow its advice.

Theoretically, a company should plan an optimum capital structure in such a way that the market value of its shares is maximum. The value will be maximised when the marginal real cost of each source of funds is the same. In general, the discussion on the issue of optimum capital structure is highly theoretical. The determination of an optimum capital structure in practice is a formidable task, and we have to go beyond the theory. That is why, perhaps, significant variations among industries and among different companies within the same industry regarding capital structure are found. A number of factors influence the capital structure decision of a company. The judgement of the person or group of persons making the capital structure decision plays a crucial role. Two similar companies can have different capital structures if the decision makers differ in their judgment about the significance of various factors. These factors are highly psychological, complex and qualitative and do not always follow the accepted theory. Capital markets are not perfect and the decision has to be taken with imperfect knowledge and consequent risk. You might have become interested in identifying some of the important factors which influence the planning of the capital structure in practice. However, before we discuss these factors let us examine the features of an appropriate capital structure in the next section.

Activity 14.1

Look into the financial statement of one large company and one medium or small sized company in the private sector and then arrange a meeting with their executives in the department of Accounting and Finance. Investigate on the following lines:

- a) What is the composition of the capital structure of the company? Why the company has a particular capital structure and why not some other? Was any capital structure planning done before the companies were set up?

.....

.....

.....

.....

.....

.....

.....

.....



- b) Note the differences in the capital structures of the two companies and find out the reasons for the differences.

.....

.....

.....

.....

- b) Are the capital structures of the two companies of their own making or have they evolved on account of circumstances beyond their control?

.....

.....

.....

.....

- d) Do the companies regard their capital structures optimum? If not, what plans do they have or propose to have to set the capital structure right?

.....

.....

.....

.....

14.3 FEATURES OF AN APPROPRIATE CAPITAL STRUCTURE

Capital structure is usually planned keeping in view the interests of the ordinary shareholders. The ordinary shareholders are the ultimate owners of the company and have the right to elect the directors. While developing an appropriate capital structure for his company, the financial manager should aim at maximising the long-term market price of equity shares. In practice, for most companies within an industry, there would be a range of appropriate capital structures within which there are not many differences in the market values of shares. A capital structure in this context can be determined empirically. For example, a company may be in an industry that has an average debt to total capital ratio of 60 per cent. It may be empirically found that the shareholders in general do not mind the company operating within a 15 per cent range of the industry's average capital structure. Thus, the appropriate capital structure for the company ranges between 45 per cent to 75 per cent debt to total capital ratio. The management of the company should try to seek the capital structure near the top of this range in order to make maximum use of favourable leverage, subject to other requirements such as flexibility, solvency, etc.

A sound appropriate capital structure should have the following features:

Profitability: The capital structure of the company should be most advantageous, within the constraints. Maximum use of leverage at a minimum cost should be made.

Solvency: The use of excessive debt threatens the solvency of the company. Debt should be used judiciously.

Flexibility: The capital structure should be flexible to meet the changing conditions. It should be possible for a company to adapt its capital structure with minimum cost and delay if warranted by a changed situation. It should also be possible for the company to provide funds whenever needed to finance its profitable activities.

In other words, from the solvency point of view we need to approach capital structuring with due conservation. The debt capacity of the company which depends on its ability to generate future cash flows should not be exceeded. It should have enough cash to pay periodic fixed charges to creditors and the principal sum on maturity.



The above are the general features of an appropriate capital structure. The particular characteristics of a company may reflect some additional specific features. Further, the emphasis given to each of these features may differ from company to company. For example, a company may give more importance to flexibility than to retaining the control which could be another desired feature, while another company may be more concerned about solvency than about any other requirement. Furthermore, the relative importance of these requirements may change with changing conditions.

14.4 DETERMINANTS OF CAPITAL STRUCTURE

Capital structure has to be determined at the time a company is promoted. The initial capital structure should be designed very carefully. The management of the company should set a target capital structure and the subsequent financing decisions should be made with a view to achieve the target capital structure. Once a company has been formed and it has been in existence for some years, the financial manager then has to deal with the existing capital structure. The company may need funds to finance its activities continuously. Every time the funds have to be procured, the financial manager weighs the pros and cons of various sources of finance and selects most advantageous sources keeping in view the target capital structure: Thus the capital structure decision is a continuous one and has to be taken whenever a firm needs additional finance.

Generally, the factors to be considered whenever a capital structure decision is taken are: (i) Leverage or Trading on equity, (ii) Cost of capital, (iii) Cash flow, (iv) Control, (v) Flexibility, (vi) Size of the company, (vii) Marketability, and (viii) Floatation costs.



ignou
THE PEOPLE'S
UNIVERSITY



ignou
THE PEOPLE'S
UNIVERSITY



Cost of Capital

Measuring the costs of various sources of funds is a complex subject and needs a separate treatment. Needless to say that it is desirable to minimise the cost of capital. Hence, cheaper sources should be preferred, other things remaining the same.

The cost of a source of finance is the minimum return expected by its suppliers. The expected return depends on the degree of risk assumed by investors. A high degree of risk is assumed by shareholders than debt-holders. In the case of debt-holders, the rate of interest is fixed and the company is legally bound to pay interest, whether it makes profits or not. For shareholders the rate of dividend is not fixed and the Board of Directors has no legal obligation to pay dividends even if the profits have been made by the company. The loan of debt-holders is returned within a prescribed period, while shareholders can get back their capital only when the company is wound up. This leads one to conclude that debt is a cheaper source of funds than equity. The tax deductibility of interest charges further reduces the cost of debt. The preference share capital is cheaper than equity capital, but is not as cheap as debt is. Thus, in order to minimise the overall cost of capital, a company should employ a large amount of debt.



ignou
THE PEOPLE'S
UNIVERSITY



For determining the optimal debt equity mix, we have to calculate the composite cost of capital i.e. K_o which is equal to $K_{i1} + K_{e2}$

Where K_i = Cost of debt
 p_1 = Relative proportion of debt in the total capital of the firm
 K_e = Cost of equity
 p_2 = Relative proportion of equity in the total capital of the firm

Before we arrive at any conclusion, it would be desirable to prepare a table showing all necessary information and calculations.

Table 14.2
Cost of Capital Calculations

| K_i % | K_e % | p_1 | p_2 | $K_{i1} + K_{e2} = K_o$ |
|---------|---------|-------|-------|-------------------------|
| 10 | 15 | 0.0 | 1.00 | $0 + 15.0 = 15$ |
| 10 | 15 | 0.2 | 0.8 | $2.0 + 12.0 = 14$ |
| 12 | 16 | 0.4 | 0.6 | $4.8 + 9.6 = 14.4$ |
| 13 | 18 | 0.6 | 0.5 | $7.8 + 9.0 = 16.8$ |
| 14 | 20 | 0.6 | 0.4 | $8.4 + 8.0 = 16.4$ |

The optimal debt equity mix for the company is at a point where the composite cost of capital is minimum. From Table 14.2 it is evident that a mix of 20% debt and 80% equity gives the minimum composite cost of capital of 14%. Any other mix of debt and equity gives a higher overall cost of capital. The closest to the minimum cost of capital is a mix of 40% debt and 60% equity where K_o is 14.4%. It can therefore be concluded that a mix of 20% debt and 80% equity will make the capital structure optimal.

Cash Flow

One of the features of a sound capital structure is conservation. Conservation does not mean employing no debt or a small amount of debt. Conservatism is related to the assessment of the liability for fixed charges, created by the use of debt or preference capital in the capital structure in the context of the firm's ability to generate cash to meet these fixed charges.

The fixed charges of a company include payment of interest, preference dividend and principal. The amount of fixed charges will be high if the company employs a large amount of debt or preference capital. Whenever a company thinks of raising additional debt, it should analyse its expected future cash flows to meet the fixed charges. It is obligatory to pay interest and return the principal amount of debt. If a company



is not able to generate enough cash to meet its fixed obligations, it may have to face financial insolvency. The companies which expect large and stable cash inflows can employ a large amount of debt in their capital structure. It is somewhat risky to employ sources of capital with fixed charges for companies whose cash inflows are unstable or unpredictable.

Control

In designing the capital structure, sometimes the existing management is governed by its desire to continue control over the company. The existing management team may not only what to be elected to the Board of Directors but may also desire to manage the company without any outside interference.

The ordinary shareholders have the legal right to elect the directors of the company. If the company issues new shares, there is a risk of loss of control. This is not a very important consideration in case of a widely held company. The shares of such a company are widely scattered. Most of the shareholders are not interested in taking active part in the company's management. They do not have the time and urge to attend the meetings. They are simply interested in dividends and appreciation in the price of shares. The risk of loss of control can almost be avoided by distributing shares widely and in small lots.

Maintaining control however could be a significant question in the case of a closely held company. A shareholder or a group of shareholders could purchase all or most of the new shares and thus control the company. Fear of having to share control and thus being interfered by others often delays the decision of the closely held companies to go public. To avoid the risk of loss of control the companies may issue preference shares or raise debt capital.

Since holders of debt do not have voting right, it is often suggested that a company should use debt to avoid the loss of control. However, when a company uses large amounts of debt, lot of restrictions are imposed on it by the debt-holders to protect their interests. These restrictions curtail the freedom of the management to run the business. An excessive amount of debt may also cause bankruptcy, which means a complete loss of control.

Flexibility

Flexibility means the firm's ability to adapt its capital structure to the needs of the changing conditions. The capital structure of a firm is flexible if it has no difficulty in changing its capitalisation or sources of funds. Whenever needed the company should be able to raise funds without undue delay and cost to finance the profitable investments. The company should also be in a position to redeem its preference capital or debt whenever warranted by future conditions. The financial plan of the company should be flexible enough to change the composition of the capital structure. It should keep itself in a position to substitute one form of financing for another to economise on the use of funds.

Size of the Company

The size of a company greatly influences the availability of funds from different sources. A small company may often find it difficult to raise long-term loans. If somehow it manages to obtain a long-term loan, it is available at a high rate of interest and on inconvenient terms. The highly restrictive covenants in loans agreements of small companies make their capital structure quite inflexible. The management thus cannot run business freely. Small companies, therefore, have to depend on owned capital and retained earnings for their long-term funds.



A large company has a greater degree of flexibility in designing its capital structure. It can obtain loans at easy terms and can also issue ordinary shares, preference shares and debentures to the public. A company should make the best use of its size in planning the capital structure.

Marketability

Marketability here means the ability of the company to sell or market particular type of security in a particular period of time which in turn depends upon -the readiness of the investors to buy that security. Marketability may not influence the initial capital structure very much but it is an important consideration in deciding the appropriate timing of security issues. At one time, the market favours debenture issues and at another time, it may readily accept ordinary share issues. Due to the changing market sentiments, the company has to decide whether to raise funds through common shares or debt.

If the share market is depressed, the company should not issue ordinary shares but issue debt and wait to issue ordinary shares till the share market revives. During boom period in the share market, it may not be possible for the company to issue debentures successfully. Therefore, it should keep its debt capacity unutilised and issue ordinary shares to raise finances.

Floataion Costs

Floataion costs are incurred when the funds are raised. Generally, the cost of floating a debt is less than the cost of floating an equity issue. This may encourage a company to use debt rather than issue ordinary shares. If the owner's capital is increased by retaining the earnings, no floataion costs are incurred. Floataion cost generally is not a very important factor influencing the capital structure of a company except in the case of small companies.

Activity 14.2

You have just read about several factors that affect the determination of capital structure in a company. In this context, meet the finance manager of a large company and ascertain which of these factors had bearing on their capital structure and to what extent.

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....



14.5 SUMMARY

Capital structure is the composition of various sources of long-term finance in the total capitalisation of the company. The two main sources are ownership and creditor ship securities. Both types of securities as well as the long-term loans from financial institutions are used by most of the large industrial companies.

Capital structure planning, initially and on continuing basis, is of great importance to any company as it has a considerable bearing on its profitability. A wrong initial decision in this respect may prove quite costly for the company.

While taking a decision about capital structure, due attention should be paid -to objectives like profitability, solvency and flexibility. The choice of the amount of debt and other fixed return securities on the one hand and variable income securities, namely equity shares on the other, is made after a comparison of the characteristics of each kind of securities and after careful consideration of internal and external factors related to the firm's operations. In real life situations compromises have to be made somewhere on the line between the expectations of companies seeking funds and the expectations of those that supply them. These compromises do not change the basic distinctions between debt and equity. Generally, the decision about financing is not of choosing between equity and debt but is of selecting the ideal combination of the two. The decision on debt-equity mix is affected by considerations of suitability, risk, income, control and timing. The weights assigned to these factors will vary from company to company depending on the characteristics of the industry and the particular situation of the company. There cannot perhaps be an exact mathematical solution to the decision on capital structuring. Human judgement plays an important role in analysing the conflicting forces before a decision on appropriate capital structure is reached.

14.6 KEY WORDS

Capital Structure (also known as Financial Structure) is the mix of various types of long-term sources of funds, namely debentures, bonds, loans from financial institutions, preference shares and equity shares (including retained earnings).

Cost of Capital is the (weighted) average cost of various sources of finance used by a company.

Financial Leverage (or Trading on Equity) is an aspect of financial planning which enables the company to enhance the return on equity shares by using debt with lower fixed cost which is less than the overall return on investment. Financial leverage magnifies the effect of changes in EBIT (Earnings Before Interest and Taxes) on EPS (Earnings Per Share).

14.7 SELF-ASSESSMENT QUESTIONS/ EXERCISES

- 1) What is capital structure? Explain the importance of capital Structure and planning?
- 2) What are the features of an appropriate capital structure?
- 3) What are the determinants of capital structure? Explain briefly.
- 4) Do you think that different factors affecting capital structure decision will be viewed differently by different companies? Support your answer with suitable examples.
- 5) Make a comparative assessment of different types of securities from the point of view of capital structuring. Under what conditions different types of securities would be considered more suitable?



- 6) Write notes on the following:
- Trading on equity
 - Cost of capital
 - Flexibility in capital structure
 - Closely held company
- 7) A company wishes to determine the optimal capital structure from the following information. Determine the optimum capital structure from the viewpoint of minimising the cost of capital.

| Financing Plan | Debt Amount | Equity Amount | After tax Cost of debt Ki% | Cost equity Ke% |
|----------------|-------------|---------------|----------------------------|-----------------|
| A | 8,00,000 | 2,00,000 | 14 | 20 |
| B | 6,00,000 | 4,00,000 | 13 | 18 |
| C | 5,00,000 | 5,00,000 | 12 | 16 |
| D | 2,00,000 | 8,00,000 | 11 | 18 |

14.8 FURTHER READINGS

Khan M.Y. and Jain P.K. 2002. *Cost Accounting and Financial Management*, Tata McGraw Hill (Part-4).

Kulkarni, P.V. Sathya B.G. 1999. *Financial Management*, (ninth revised edition), Himalaya Publishing : Bombay.

Gitman, L.J. 1985. *Principles of Managerial Finance*, Harper & Row : New York (Chapters 12 and 13).

James C., Van Horne and John M. Wachowicz 1985. *Fundamentals of Financial Management*, Prentice-Hall of India : New Delhi (Chapter 17).

UNIT 15 LEVERAGE ANALYSIS

Objectives

This unit will enable you to:

- acquire an understanding of leverage ratios
- examine the consequences of financial leverage for a business firm
- trace relationship between financial and operating leverages, and
- assess the risk implications of financial leverage.

Structure

- 15.1 Introduction
- 15.2 Concept of Financial Leverage
- 15.3 Measures of Financial Leverage
- 15.4 Effects of Financial Leverage
- 15.5 Operating Leverage
- 15.6 Combined Leverage
- 15.7 Financial Leverage and Risk
- 15.8 Summary
- 15.9 Key Words
- 15.10 Self-assessment Questions / Exercises
- 15.11 Further readings

15.1 INTRODUCTION

You have familiarised yourself with the various kinds of financial ratios-both separately and in their broad groupings. Unit 12 on Financial Ratios introduced the four fundamental bases for ratios viz., **liquidity, leverage, activity, and profitability**. The ratios discussed in that unit were picked up on the basis of their relevance in controlling business activities. Accordingly, the liquidity and leverage ratios were not covered.

Even though a firm's management would always be interested in maintaining a satisfactory level of liquidity and solvency, it is the lender or the banker who would insist upon certain norms and would monitor movements in these ratios.

Leverage ratios, which reflect the solvency status of a firm, are covered here in detail. You will get an idea about the basic concept of leverage and will be exposed to the role and effects of financial leverage.



15.2 CONCEPT OF FINANCIAL LEVERAGE

Consider for a moment the common use of the terms 'level' and 'leverage'. Webster's dictionary defines them as follows:

'Lever' is an inducing or compelling force.

'Leverage' is the action of a lever or the mechanical advantage gained by it; it also means 'effectiveness' or 'power'

The common interpretation of leverage is derived from the use or manipulation of a tool or device termed as lever, which provides a substantive clue to the meaning and nature, of financial leverage. Could you guess it?

Your reply we guess, may well be in the negative.

Now, suppose we suggest that our lever is the use of debt or borrowed funds in financing the acquisition of assets. Would you get somewhere near the concept of the term financial leverage?

Probably, you need a little explanation. We will do that. You have to look at the following simple (and hypothetical) facts about the GTB (Gain Through Borrowing) Limited.

The GTB Limited wanted to purchase fixed assets worth Rs. 80 lakhs for the execution of a project, which was to be financed by raising share capital of Rs. 30 lakhs and term loans of Rs. 50 lakhs. The company was required to earn a minimum return of 20% on its share capital. Other companies of this type were earning this much and unless GTB Limited provided at least this return, no investor would be attracted to buy its shares. The GTB Limited pays tax at 40% and is not required to pay any tax on the interest charges on term-loans.

You may do your own calculations for the two situations. We now pose a question to you: What happens to the company's net return (after interest and taxes) on equity if (a) the whole of Rs. 80 lakhs is financed by selling share capital, and (b) the scheme of financing as envisaged in the problem is implemented? You may assume GTB's earning power to be 40% (before taxes and interest) on total assets of Rs. 80 lakhs.

We present for your verification a solution below:

Table 15.1
Effect of Financial Leverage

| | Rs. 80 lakh as Share capital | Rs. 30 lakh of share capital plus 50 lakh |
|--|---|--|
| | (Rs. Lakh) | (Rs. Lakh) |
| Earnings on assets of Rs. 80 lakh @ 40% | 32.0 | 32.00 |
| Less interest : 18% on Rs. 50 lakh | ----- | 9.00 |
| Earnings after interest | 32.00 | 23.00 |
| Taxes @ 40% | 12.8 | 9.20 |
| Earnings after taxes | 19.2 | 13.80 |
| Earnings after interest and taxes as a % of share capital | 24% | 46% |

If your solution tallies with ours, you may be wondering at the results. The net return on equity is 24% when no debt is used but it is 46% when debt is used. There is a considerable increase in the net return. It is conceivable that a similar outcome may be nowhere near in some other situations even if debt is employed. At this juncture, we would premise that the use of debt funds in a profit-making and



tax-paying business improves the net equity returns. **The effect which the use of debt funds produces on returns is called financial leverage.**

You would have noted in the above example that the increase of net equity returns from 24% to 46% has occurred at a certain level of debt viz., when the debt is Rs. 50 lakh against an equity of Rs. 30 lakh (i.e., when the debt - equity ratio is 5:3 or 167%) or when the debt is of Rs. 50 lakh against total assets of Rs. 80 lakh (i.e., when the debt- assets ratio is 5:8 or 62.5%). The sub-section below examines these and other measures of financial leverage. But before we proceed, let us sum up the concept of financial leverage as follows:

Financial leverage refers to a firm's use of fixed-charge securities like debentures and preference shares (though the latter is not always included in debt) in its plan of financing the assets

Activity 15.1

Tick the correct answer for the following statements:

- | | | |
|--|------------------------------|-----------------------------|
| a) Financial leverage is the use of fixed-return securities only. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| b) Fixed-return securities include equity shares | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| c) Preference shares always form part of debt | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| d) Financial leverage improves net equity returns | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| e) Net equity returns are measured on the basis of net earnings after interest and taxes | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| f) Financial leverage always improves the total return on capital employed. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

15.3 MEASURES OF FINANCIAL LEVERAGE

The amount of debt which a firm employs or proposes to employ can be expressed in relation to total assets or total equity. Equity will include paid-up capital and reserves and total assets will be taken at net value. Even though, both equity shares and assets can be measured at market values, the present discussion will use only book values. Market values are difficult to obtain, fluctuate widely and are not available for new undertakings which also make use of the concept of financial leverage in planning their sources of finance.

We will illustrate two ratios viz., Debt-equity and Debt-assets ratios both of which are computed from Balance Sheet data and are inter-related. You may note that this section measures the use of financial leverage and not its effects. The latter is measured through Degree of Financial leverage, which is discussed in a later section.

We shall explain the concept of financial leverage with the help of an example. Bharat Engines Limited, plans to acquire total assets amounting to Rs. 1 crore. The company has only two sources of finance viz.; debt and equity. The Finance Director wants to know the changes that will take place in the Debt-equity and Debt-assets ratios for various debt levels i.e., (a) Zero (b) Rs. 10 lakh (c) Rs. 20 lakh (d) Rs. 30 lakh (e) Rs. 50 lakh (f) Rs. 80 lakh (g) Rs. 1 crore. The table 13.2 provides the required calculations:



Table 15.2
Debt-assets and Debt-equity Ratios
 (Total investment in assets = Rs 100 lakh)

| Debt Rs. Lakh | Equity Rs. Lakh | Debt-assets Ratio | Debt-equity Ratio |
|------------------|--------------------|----------------------|----------------------|
| Zero | 100 | Zero | Zero |
| 10 | 90 | 10% | 11.1% |
| 20 | 80 | 20% | 25% |
| 30 | 70 | 30% | 43% |
| 50 | 50 | 50% | 100% |
| 80 | 20 | 80% | 400% |
| 100 | Zero | 100% | ∞ |

Please study the last two columns of the above table. The following analysis reflects the basic properties of the two ratios and indicate their inter-relationship:

- The Debt-assets ratio rises at a constant rate and reaches a maximum of 100%. The Debt-equity ratio grows exponentially and reaches infinity (∞)
- The two ratios are mathematically related and can be derived from each other. The following relationships may be used for such derivations:

$$\text{Debt - assets Ratio (D/A)} = \frac{\text{D/E Ratio}}{1 + \text{D/E Ratio}} \quad \dots(1)$$

$$\text{Debt - equity Ratio (D/E)} = \frac{\text{D/A Ratio}}{1 - \text{D/A Ratio}} \quad \dots(2)$$

The use of these formulas for deriving one ratio from the other can be demonstrated at any debt level. For example, at a debt level of Rs. 80 lakh, the Debt-assets ratio is 80%. The D/E ratio can be derived by using formula-(2) above:

$$\text{D/E Ratio} = \frac{80}{1 - 80} = \frac{80}{20} = 4.00 \text{ or } 400\%$$

Similarly, with a given D/E ratio of 400% or 4:00, the D/A ratio can be derived by using formula (1) above :

$$\text{D/A Ratio} = \frac{4.00}{1 + 4.00} = \frac{4.00}{5.00} = 80 \text{ or } 80\%$$

Both D/A and D/E ratios are used to measure the amount of financial leverage. You may note that the D/E ratio overstates the amount of financial leverage for all levels of debt and becomes indeterminate when debt employed is one hundred per cent. It may, therefore be technically more feasible to employ the Debt-asset ratio as indicator of the use of financial leverage.

You may come across some ratios in contemporary literature which attempt to measure the use of financial leverage. They are:

$$a) \frac{\text{Debt}}{\text{Total Value of the Firm (at market Price)}}$$

$$b) \frac{\text{Return on Equity}}{\text{Return on Total Capital}}$$



Answer the following :

- a) Amount of leverage and degree of leverage are the same Yes No
- b) Debt-equity ratio overstates the use of leverage Yes No
- c) A firm (to be established) can use market values Yes No
for its leverage ratios
- d) The D/E ratio is infinite at 100% debt Yes No
- e) D/A and D/E ratios can be derived from each other Yes No
- f) When the D/E ratio is 200%, D/A ratio would be Yes No
(i) 80% (ii) 100% (iii) 67% (iv) 45% (v) None of these

15.4 EFFECTS OF FINANCIAL LEVERAGE

The example in Table 13.I introduced you to a possible effect of financial leverage on return on equity. You must have noted one important consideration in the use of borrowed funds, that is, the improvement in net equity returns which such a move brings about.

In fact, the effect of financial leverage is also measured through another variable viz., earnings per share (EPS). This is done in the case of joint stock companies which have raised their proprietary capital by selling units of such capital known as equity shares. Earnings per share are obtained by dividing earnings (after interest and taxes) by total equity. You may note that if a company has preference shares also on its capital structure, net equity earnings will be arrived at after deducting interest, taxes and preference dividends. **Capital structure** refers to the permanent long-term financing of a company represented by a mix of long-term debt, preference shares, and net-worth (which included paid-up capital, reserves and surpluses). When the sum total of capital structure components is added to short-term debt, it is known as **Financial structure**. Financial Leverage and its effects are a crucial consideration in planning and designing capital structures.



ignou
THE PEOPLE'S
UNIVERSITY



15.5 OPERATING LEVERAGE

We have stated and seen in the preceding section that Financial Leverage magnifies the risk of bankruptcy viz. the financial risk. Now, we have another concept of leverage, which has a close relationship with business risk. This is **operating leverage**. In fact, operating leverage affects business risk, which may be viewed as the uncertainty inherent in estimates of future operating income.

A little recapitulation from our discussion of break-even analysis (Unit 9) will help us to understand the concept of operating leverage. You may note that the operating leverage refers to the degree to which a firm has **built in fixed costs** due to its particular or unique production process.

In a large number of situations, a firm would be in a position to exercise a degree of control on the choice of its technology and the related production processes. The production processes which are accompanied by high fixed costs but low variable costs are generally the highly mechanised and automated processes. With such processes, the degree of operating leverage is generally high, the break-even point is relatively higher, and thus changes in the sales level have a magnified



(or “leveraged”) effect on profits. Notice that as the operating leverage (i.e., fixed costs), goes higher, so does the break-even sales volume. Hence greater is the impact on profits of a given change in sales volume. Also notice that Financial Leverage adds another element of fixed expenses i.e., fixed financial charges, and serves to further magnify the impact of total leverage on profits.

Operating Leverage : We present the following hypothetical volume - costs - profit profile of three firms A, B and C.

Table 15.5
Operating Leverage

| Units sold | Sales @ Rs. 10/ per unit | Rs. in lakh | | | | | |
|-------------------------|--------------------------|--------------|--------|--------------|--------|--------------|--------|
| | | Firm A | | Firm B | | Firm C | |
| | | Cost | Profit | Cost | Profit | Cost | Profit |
| 30,000 | 3.00 | 3.60 | -.60 | 4.50 | -1.50 | 5.70 | -2.70 |
| 40,000 | 4.00 | 4.30 | -.30 | 5.00 | -1.00 | 6.00 | -2.10 |
| 50,000 | 5.00 | 5.00 | 0.00 | 5.50 | -.50 | 6.70 | -1.50 |
| 60,000 | 6.00 | 5.70 | .30 | 6.00 | 0.00 | 7.40 | -.90 |
| 70,000 | 7.00 | 6.40 | .60 | 6.50 | .50 | 8.10 | -.30 |
| 80,000 | 8.00 | 7.10 | .90 | 7.00 | 1.00 | 8.80 | .30 |
| 90,000 | 9.00 | 7.80 | 1.20 | 7.50 | 1.50 | 9.50 | .90 |
| 1,00,000 | 10.00 | 8.50 | 1.50 | 8.00 | 2.00 | 10.20 | 1.50 |
| Fixed Costs: | | Rs. 1.5 lakh | | Rs. 3.0 lakh | | Rs. 4.5 lakh | |
| Variable cost per unit: | | Rs. 7.00 | | Rs. 5.00 | | Rs. 4.00 | |

You may have noticed the characteristics of the three firms from Table 13.5. They are

- Sales volume in units, selling price per unit, and sales value realisation are identical for all the three firms.
- Fixed costs are the lowest for firm A, medium for B, and highest for C. Firm A has the least automated plant, lowest depreciation charges, low fixed costs, and a higher per unit variable cost. Firm B has a moderately automated plant. Firm C has the most highly automated plant which needs very little labour per unit of output. Its variable costs rise slowly and its overhead burden is relatively higher. Firm C has the lowest variable cost per unit at Rs. 4.00.

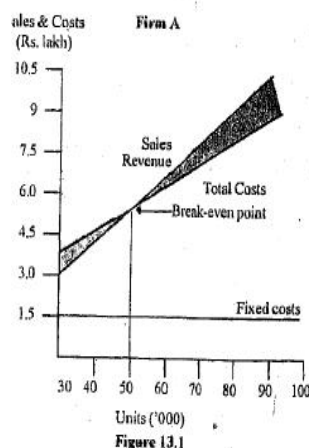


Figure 13.1

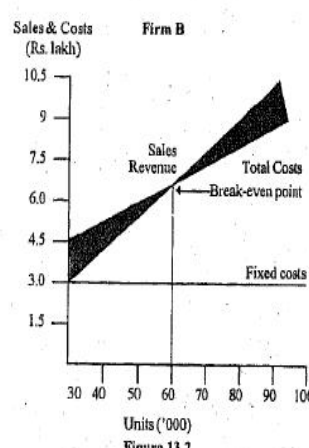


Figure 13.2

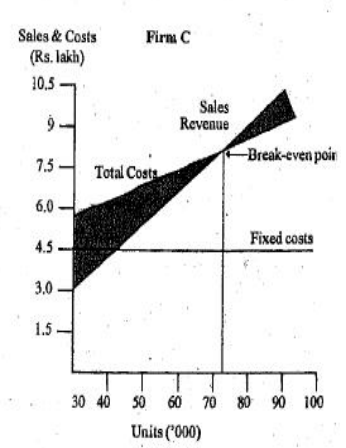


Figure 13.3



Degree of operating leverage : Degree of operating leverage measures the effect of change in volume on net operating income or earnings before interest and taxes. This may be obtained by using the following formula:

Degree of operating leverage

$$(DOL) = \frac{\% \text{ change in net operating income}}{\% \text{ change in units sold or sales}}$$

Degree of operating leverage will be calculated for a firm when it moves over from one level of sales (volume or value) to another. For example, the degree of leverage for firm B in Table 13.5, when it shifts from a volume of 80,000 units to 90,000 units, would be as below: -

$$(DOL) =$$

Where Δ NOI is the change in Net Operating Income

NOI is net operating income or earnings before interest and taxes

Δ Q is the change in quantity or volume, and

Q is quantity or volume

Thus, DOL for firm B for a change in output from 80,000 units to 90,000 units would be:

$$\begin{aligned} &= \frac{1,50,000 - 1,00,000 / 1,00,000}{(90,000 - 80,000) / 80,000} = \frac{50,000 / 1,00,000}{10,000 / 80,000} \\ &= \frac{50\%}{12.5\%} \\ &= 4 \end{aligned}$$

To be able to understand the implications of DOL, you may compare Firm A (least operating leverage) with Firm C (highest operating leverage) at any two given levels of output, say for a change in output from 80,000 units to 90,000 units i.e. an increase of 12.5%.

$$DOL_A \text{ at } 80,000 \text{ units} = \frac{.30 / .90}{10,000 / 80,000} = 2.67$$

$$DOL_C \text{ at } 80,000 \text{ units} = \frac{.60 / .30}{10,000 / 80,000} = 16.00$$



You may now notice the manner in which profits change in response to change in volume. Thus, for 12.5% increase in output, profits will increase by 26.7% for Firm A (which is low-leveraged firm) and by 160% for Firm C (which is high leveraged firm). You will find fluctuations in profits to be more steep for firms which are highly leveraged. Thus, **the higher the degree of operating leverage the greater will be the fluctuations in profits in response to changes in volume.** And this relationship works both ways i.e. when volume increases as well as when it declines.

The degree of leverage has implications for a number of business and financial policy areas. The following examples based on the DOL of Firm C illustrate some of these areas :

- a. The high degree of operating leverage for Firm C suggests that volume may be increased to gain a steep rise in profits. If Firm C could increase its volume from 1,00,000 units to 2,00,000 units by reducing the selling price to Rs. 9.00 per unit, the net operating income with this price revision would be:

$$\begin{aligned} \text{NOI} &= PQ - VQ - F \text{ Where P is price per unit, y is variable cost per unit,} \\ &\quad Q \text{ is volume in units and F is total fixed cost.} \\ &= \text{Rs. } 9 \times 2,00,000 - \text{Rs. } 4 \times 2,00,000 - \text{Rs. } 4.5 \text{ lakhs} \\ &= \text{Rs. } 18 \text{ lakhs} - \text{Rs. } 8 \text{ lakhs} - \text{Rs. } 4.5 \text{ lakhs} \\ &= \text{Rs. } 5.5 \text{ lakhs} \end{aligned}$$

You may note that Firm C is able to increase its profits from Rs. 1.50 lakhs at a volume of 1,00,000 units to Rs. 5.50 lakhs at a volume of 2,00,000 units. Thus, a doubling of output (by a 10% reduction in sales price from Rs. 10 to Rs. 9) results in profits becoming about 3.6 times. Firm C with a high degree of operating leverage may, therefore, adopt an aggressive price policy.

- b. A high degree of operating leverage also suggests that profits will swing widely as volume fluctuates: If, Firm C belongs to an industry where sales are greatly affected by changes in the overall level of the economy resulting in wild fluctuation of profits, **the degree of financial leverage appropriate to Firm C will be lower** than the one for a firm which belongs to an industry not so sensitive to changes in the economy.

15.6 COMBINED LEVERAGE

The degree of operating leverage may be combined with the degree of financial leverage. In fact, degree of operating leverage (DOL) is viewed as the first-stage leverage and degree of financial leverage (DFL) as the second-stage leverage. Since financial leverage measures the effect of changes in EBIT on earnings available to equity shareholders, it may be calculated by using the following formula:

$$\text{Degree of financial leverage} = \frac{\% \text{ change in Net Income}}{\% \text{ change in EBIT}}$$

The use of this formula may be illustrated before demonstrating the implications of combining DOL and DFL. The data of Table 13.3 for the leverage factors of 20% debt and 80% debt may be utilised to show the effect of an increase of EBIT from Rs. 25 lakhs to Rs. 50 lakhs. The following calculations may be noticed:

DFL (80%) the degree of financial leverage at 80% debt.

DFL (20%) the degree of financial leverage at 20% debt.



$$\begin{aligned} \text{DFL (80\%)} &= \frac{(22.80 - 7.80) / 7.80}{(50.00 - 25.00) / 25.00} \\ &= \frac{(15.00 - 7.80)}{25.00 / 25.00} = \frac{2.92}{1.00} = 2.92 \end{aligned}$$

$$\text{DFL (20\%)} = \frac{(28.20 - 13.20) / 13.20}{(50.00 - 25.00) / 25.00} = \frac{15.00 / 13.20}{25.00 / 25.00} = 1.14$$

The Figures 2.92 and 1.14 can be easily understood. The former implies that when the debt ratio (or the leverage factor) is 80%, a 10% increase in EBIT produces a 29.2% (10 x 2.92) increase in net income available to equity shareholders. At a leverage factor of 20%, a 10% increase in EBIT brings about only an 11.4% (10 x 1.14) increase in net income or earnings available to equity shareholders. You may conclude **that a high degree of leverage brings about a higher magnification of equity earnings.**

In the absence of debt, the degree of financial leverage (DFL) will be 1.00 (i.e. unity). The use of debt will lead to DFL above 1.00 or 100%. The DFL may be viewed as a multiplication factor, and when this multiplication factor is 1.00, there is no magnification in net income or return on equity, or in earnings per share.

A combination of operating and financial leverage measures the degree of magnification in Net Income (NI), Return on Equity (ROE), and Earnings per Share (EPS) for a given increase in sales. When the **use of operating and financial leverage is considerable, small changes in sales will produce wide fluctuations in NI, ROE and EPS.**

The Degree of Combined Leverage (DCL) may be measured by using the following formula:

$$\begin{aligned} \text{DCL} &= \text{DOL} \times \text{DFL} \\ \text{DCL} &= \frac{\% \text{ change in Net Income EBIT}}{(\% \text{ change in sales})} \times \frac{\% \text{ change in net income}}{(\% \text{ change in EBIT})} \\ &= \frac{\% \text{ change in net Income}}{\% \text{ change in sales}} \end{aligned}$$

You may note that a number of combinations of DOL and DFL may produce the same DCL. And if management has a target DCL, changes in DOL or DFL may be made to attain the targeted DCL. For instance, if the firm has a high degree of operating leverage due to the nature of its operations, the degree of financial leverage may be suitably lowered so as not to lower the targeted combined leverage and vice versa.

13.7 FINANCIAL LEVERAGE AND RISK

We posed the question of risk at the beginning of this unit. You would have noted from our discussion so far that the concepts of operating, financial, and combined leverage have been examined to assess the quantum of risk (business, financial and combined), which the firm faces as a result of decisions to change the various degrees of leverage. In fact, the extent to which the various measures of net income fluctuate, for given variations in sales or EBIT, has a direct bearing on many business and financial policies.

There are several statistical measures, which help us to quantify risk. We propose to calculate one such measure known as coefficient of variation by using data in Table 15.3 and the additional data given in Table 15.6 below:

Table 15.6
Cost Structure of Bharat Engines Ltd.

| Sales (units) | Rs. in lakhs | | |
|---|--------------|-------|--------|
| | 1875 | 8125 | 11250 |
| Sales @ Rs. 1,000 per unit | 18.75 | 81.25 | 112.50 |
| Fixed operating cost | 40.00 | 40.00 | 40.00 |
| Variable operating costs (20% of sales in Rs) | 3.75 | 16.25 | 22.50 |
| Earnings before interest and taxes (EBIT) | -25.00 | 25.00 | 50.00 |
| Pre-tax return on total assets (%) | -25.00 | 25.00 | 50.00 |

The total cost can be estimated as follows:

$$\begin{aligned} \text{Total Cost} &= \text{Fixed operating costs} + \text{Variables operating costs per unit (Sales)} \\ &= 40 \text{ lakhs} + 0.20 (\text{sales}) \end{aligned}$$

In order to obtain a measure of coefficient of variation, the first step is the assignment of probabilities to the possible levels of sales that the management has forecast. Probability in brief is the chance of some event occurring. If it is absolutely definite, it is 1, otherwise probability is always a fraction of unity (1).

The state of the economy is beyond the control of management, but corporate policies are within its control and can be reasonably forecast.

The state of the economy may range from 'very poor' to 'very good' and may accordingly be incorporated in the management's attitudes of pessimism or optimism.





15.8 SUMMARY

Concepts of financial and operating leverages are important for evaluating business and financial risk of a firm. Operating leverage refers to the use of fixed costs in operations and it is related to the firm's production processes. The greater the operating leverage the higher is the risk in operations. At the same time, a high degree of operating leverage causes profits to rise rapidly after the break-even point is reached.

Financial leverage refers to the use of debt in financing non-current assets. If the return on assets exceeds the cost of debt, the leverage is successful i.e., it improves returns on equity. While this being so, a high financial leverage magnifies financial risk. At some degree of financial leverage the cost of debt rises because of increased risk with the higher fixed charges. When this happens, riskiness of the firm also increases in the eyes of equity investors who start expecting a higher return to compensate for the increased risk burden.

Financial leverage and operating leverage are related with each other. Both have similar effects on profits. A greater use of either i.e., operating or financial leverage leads to following results:

- a) The break-even point is raised
- b) The impact of change in the level of sales on profits is magnified.

Operating and financial leverages have reinforcing effects. Operating, or first-stage leverage affects earnings before interest and taxes (i.e., net operating income) while financial, or second-stage leverage affects earnings after interest and taxes (i.e., net income available to equity shareholders).

Operating and financial leverages are measured in relative terms to assess their impact on profitability of a firm. These measures are given by the degrees of operating and financial leverage. A combined degree of financial and operating leverage can also be calculated to evaluate effects of changes in sales on net-income or earnings per share.

Financial leverage and risk are related variables and the statistical measures known as coefficient of variation can be computed to estimate the risk of the firm at different levels of leverage or debt ratio.

15.9 KEY WORDS

Financial Leverage refers to the use of debt in the financing of a firm. It denotes the presence of fixed-return securities in the capital structure of the firm.

Operating Leverage is the use of fixed costs in operations. A high operating leverage factor indicates the presence of automated production processes.

Leverage Factor refers to the ratio of long-term debt to total assets.

Capital Structure is the long-term financing plan of a firm. It covers debentures, preference shares, other fixed-return securities, long-term loans, equity shares, and reserves and surplus.

Financial Structure is the total financing plan of a firm, which, besides all components of capital structure, also includes short-term debt.



Degree of Operating Leverage is the percentage change in net operating income in response to a percentage change in sales (volume or value).

Degree of Financial Leverage is the percentage change in net income available to equity investors in relation to changes in earnings before interest and taxes.

Degree of Combined Leverage is the percentage in net income after interest and taxes in response to percentage variations in sales (volume or value).

Risk includes both operating risk (as given by the degree of operating leverage) and financial risk (as reflected by the degree of financial leverage) and is evaluated by a statistical measure known as coefficient of variation.

15.10 SELF-ASSESSMENT QUESTIONS/ EXERCISES

1. Is the use of financial leverage justifiable from a socio-economic standpoint? Explain by listing some advantages and disadvantages.
2. How does the use of financial leverage affects the break-even point? Illustrate.
3. In what way is financial leverage related, to operating leverage? Discuss with an example.
4. 'Risk increases proportionately with financial leverage'. Refute this statement with reasons.
5. 'Other things remaining the same , firms with relatively stable sales are able to incur relatively high debt ratios.; Do you agree With the statement?
6. Why is EBIT (Earnings before Interest and Taxes or Net Operating Income) generally Considered to be independent of financial leverage?: Why should EBIT actually be influenced by financial leverage at high debt' levels?
7. State whether the following are True or False :
 - a) Financial leverage affects both net income and BBIT, while operating leverage affect only BBIT True False
 - b) Two firms with identical financial and operating leverage may have different degrees of business risk as measured by the coefficient of variation of their respective ROE. True False
 - c) **Business risk** refers primarily to uncertainty about future EBIT, While **financial risk** refers to the added uncertainty about future net income that True False is caused by the use of debt
8. Other things being constant,' if Firm A has more **Operating leverage** than Firm B, then a given percentage decline in sales will cause a larger percentage decline for Firm A than for Firm B in
 - a) EBIT
 - b) Net Income
 - c) Both (a) and (b)
 - d) Neither (a) nor (b)
 - e) None of these
9. One of the components of a firm's financial structure that is not a component of its capital structure is:
 - a) debentures
 - b) reserves



- c) convertible preference
 - d) shares
 - e) short-term debt
 - f) equity shares
- 10 . Financial leverage is different from operating leverage in that it is concerned with
- a) capital structure
 - b) uncertainty of markets
 - c) inefficient financial managers
 - d) uncertain estimates of EBIT
 - e) None of these
11. In general, financial leverage is favourable whenever the return on assets exceeds the
- a) cost of equity share capital
 - b) total cost of capital
 - c) net return after taxes
 - d) cost of debt
 - e) none of these
12. Highly leveraged companies are most likely to be found in industries where sales are
- a) increasing around a trend line
 - b) relatively unstable
 - c) relatively stable
 - d) expected to decline
 - e) relatively uncertain with high margins
13. Fill in the blanks
- a) Firms that have a high ratio of fixed costs to variable costs are said to operate with a high degree of
 - b) Other things being constant firms with a **degree** of operating leverage are better able to employ more..... in their capital structures.
 - c) Debt has aover equity **in that**is a deductible expense whileis not.
14. A firm has a debt ratio of 75% , and it has total assets of **Rs.** 20 crores. Before the creditors are **unprotected** these assets may **drop to** a value of
- a) Rs. 10 crores
 - b) Rs. 5 crores
 - c) Rs. 20 crores
 - d) Rs. 15 crores
 - e) none of these.
15. The debt ratio of Firms A and B are 60% and 30%, respectively. Both firms have assets totalling Rs. 50 crores and both have a cost of debt of 8 per cent. Firm A earns 12 per cent before interest and taxes on its total assets. Assume a 50 per cent tax rate and answer the following questions:
- a) What does A earn on equity after interest **and** taxes?

b) If B is to earn the same rate on equity after taxes as A. What must it earn before interest and taxes on its assets?

| | (A) | (B) |
|------|------|-----|
| i) | 15 % | 7 % |
| ii) | 9% | 15% |
| iii) | 7% | 12% |
| iv) | 9% | 12% |
| v) | 7% | 15% |

59

Leverage Analysis



ignou
THE PEOPLE'S
UNIVERSITY



Answers to Activities

Activity 15.1

1. (a) No (b) No (c) No (d) Yes (e) Yes (f) No

Activity 15.2

2. (a) No (b) Yes (c) No (d) Yes (e) Yes (f)

$$(iii) \text{ D/A ratio} = \frac{\text{D/E ratio}}{1 + \text{D/E ratio}} = \frac{2.0}{1 + 2.0} = \frac{2.00}{3.00} = 67\%$$



ignou
THE PEOPLE'S
UNIVERSITY



Return on Equity

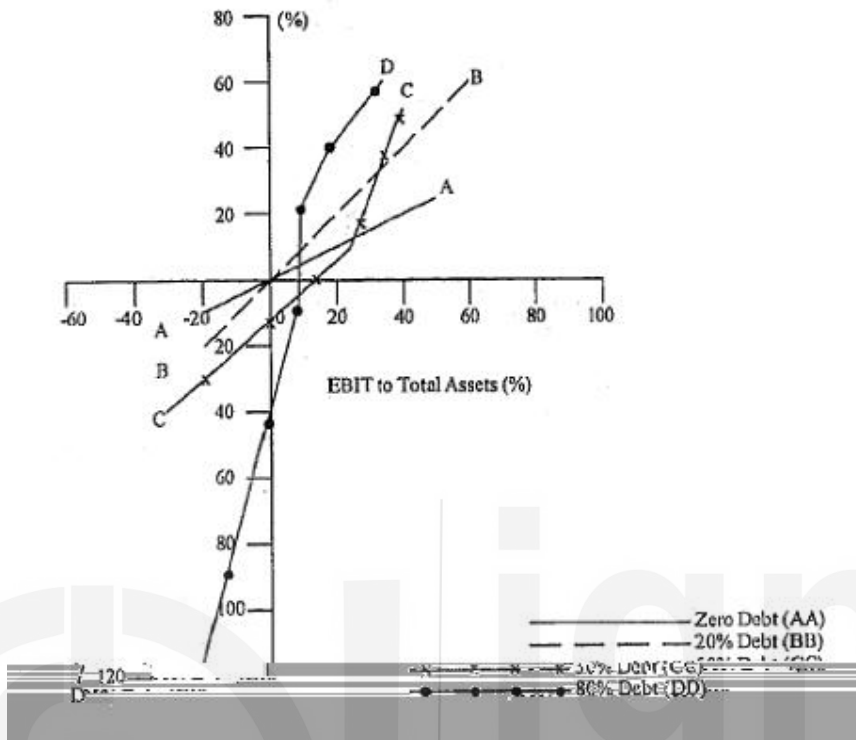


Figure : Financial Leverage and Variation in. Equity Returns Conclusions

- a) With zero debt, the ratio of ROE to Return on Total Assets (ROTA) as depicted by AA is a relatively flat line.
- b) With 80% debt, the ratio of ROE to ROTA as , shown by DD becomes.. very steep.

This implies that as the debt-assets ratio rises, the ratio of ROE to ROTA becomes steeper:

Thus, greater financial leverage produces greater volatility in the return on equity.

Conclusions are consistent with the analysis of Table 13.3.

4 Firm A has the lowest level of fixed costs and Firm C the highest.

Firm A has a steep total cost curve because the variable cost per unit is high and the low fixed costs of not permitting a net reduction in total costs.

Total cost curve of Firm C is relatively flat. The high fixed cost component ' enables the firm to try variable costs, particularly the labour costs.

The location of Break-even Points (BEP) is interesting. The BEP for Firm A is at the lowest level of sales of the three firms. For firm C, it is at the highest level of sales.

Firm, C which has a BEP at a higher volume is able to record a higher rate of increase in profits once it reaches the BEP, compared to the other two firms. At a high volume of operations, Firm. C begins to command a substantial cost superiority compared to the other two firms and more particularly Firm A. This result is now obvious at a



level of 1 lakh units. But if volume of sales rises to 2 lakh units, the per unit costs for the three firms would be as under:

| Firm | Fixed cost | Variable cost for 2 lakh units | Total cost | Units of sales | Per unit cost |
|------|------------|--------------------------------|------------|----------------|---------------|
| | (Rs.lakh) | (Rs.lakh) | (Rs.lakh) | | |
| A | 1.50 | 14.00 | 15.50 | 2,00,000 | 7.75 |
| B | 3.00 | 10.00 | 13.00 | 2,00,000 | 6.50 |
| C | 4.50 | 8.00 | 12.50 | 2,00,000 | 6.25 |

Firm C can use the cost advantage at higher levels of sales in competitive markets. This will be particularly relevant for export sales.

Answers or approaches to Self-assessment Questions / Exercises Hints for some selected questions:

1 Advantages

- It provides a method for some investors to hold securities with fixed and prior claims.
- It may encourage real investment.
- Financial leverage tends to stabilise economic functions by promoting contra cyclical investment: Debt is costly during booms and firms avoid it after a stage. Investment is reduced and a boom is not fed further. Similarly, debt is cheaper during depressions and it may result in higher investment, which pushes the economy out of unstable, to more stable conditions.

Disadvantages

A major disadvantage is that heavy fixed charges may cause forced liquidation of firms during business downswings and may aggravate the severity of business depressions.

If risk is defined as coefficient of variation, it is not possible to generalise the relationship with absolute certainty. With increased financial leverage, risk could rise proportionately, more than proportionately or, less than proportionately.

The example in the test of the unit demonstrates a case where risk or the Cv rises less than proportionately with the debt ratio. With some other set of data, a linear relationship could be established, or a relationship where risk increases at a decreasing rate with the debt ratio could be found. Note that in all these cases risk does increase to some extent.

- If sales tend to fluctuate widely, then cash flows and the ability to service fixed charges will also vary. Consequently, the possibility that the firm is unable to meet its fixed obligations increases. For this reason, firms in unstable industries tend to minimise their use of debt.
- Financial leverage has no effect on EBIT; it only affects equity earnings or net income, given EBIT. The EBIT is influenced by operating leverage.
- (a) False (b) True (c) True 8 (c) 9 (d) 10 (a) 11 (d) 12 (c)
- (a) Operating leverage (b) low; debt (c) tax; interest; dividends.

14 (b)



Total assets Rs. 20 crores.

Less : Debt

(.75 of Rs. 20 crores) = Rs. 15 crores

Equity = Rs. 5 crores

Rs. 5 crores representing owner's equity is the amount that assets could drop to before creditors would begin to lose protection.

15 (ii)

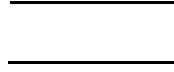
| | Firm A | Firm B |
|--|--------------------------|--------------------|
| | Debt 60 % Rs. 30 crores | 30% Rs. 15 crores |
| | Equity 40% Rs. 20 crores | 70% Rs. 35 crores |
| Total Assets | 100% Rs. 50 crores | 100% Rs. 50 crores |
| Firm A earns .12 ^x Rs. 50 crores | | = Rs. 6.00 crores |
| Less : Interest .08 ^x Rs. 30 crores | | = Rs. 2.40 crores |
| Taxable income | | = Rs. 3.60 crores |
| Less : taxes | | = Rs. 1.80 crores |
| Net income | | = Rs. 1.80 crores |
| Rate of return on equity = Rs. 1.8 crores/ Rs. 20 crores = 9 % | | |
| Firm B's net income .09 x Rs. 35 crores | | = Rs. 3.15crores |
| Add : B's taxes | | = Rs. 3.15 crores |
| Taxable income | | = Rs. 6.30 crores |
| Add debt interest .08 x Rs. 15 crores | | = Rs. 1.20 crores |
| EBIT | | = Rs. 7.50 crores |
| Rate of return on assets = Rs. 7,5 crores/Rs. 50 crores = 15 % | | |

15.11 FURTHER READINGS

Van Horne, James C. 2002. *Financial Management Policy, 12th edition*, Prentice-Hall of India : New Delhi. (Chapter 10&12).

Keown, Arthur J. (with Scott, Martin, and Petty). 10/14/2002, *Foundation of Finance: The Logic and practice of Financial Management* Prentice-Hall of India: New Delhi.

Khan, M.Y. and P.K. Jain. 1985. *Financial Management*, Tata McGraw-Hill: New Delhi. (Chapter 10).



ignou
THE PEOPLE'S
UNIVERSITY



ignou
THE PEOPLE'S
UNIVERSITY

Structure

- 16.0 Objectives
- 16.1 Introduction
- 16.2 Classification of Assets
 - 16.2.1 Fixed assets
 - 16.2.2 Semi-fixed assets
 - 16.2.3 Movable assets
 - 16.2.4 IT Assets
- 16.3 Asset Grouping Based On Purpose Of Usage
 - 16.3.1 Creating Facility and Convenience for the Customers
 - 16.3.2 Creating Right Ambience for the Store as per Store Positioning and Product Strategies
 - 16.3.3 For Stock Storage a and Security Purpose
- 16.4 Asset Utilization
- 16.5 Return on Assets
 - 16.5.1 Net Profit on Total Net Asset Value
 - 16.5.2 Gross profit on Total Net Asset Value
- 16.6 Depreciation on Assets
 - 16.6.1 Straight Line method
 - 16.6.2 Written Down Value method
- 16.7 Let us sum up
- 16.8 Key Words
- 16.9 Answers to Check Your Progress
- 16.10 Terminal Questions
- 16.11 Further Readings

16.0 OBJECTIVES

Efficiency and low overheads are things that nearly all businesses struggle hard to accomplish. Capital Assets in retail sector has grown at a much quicker manner over the recent years. Unlike the commercial exposures, retail sector manages retail assets on pooled center. In this unit, we talk about the methodology of creating pools of revolving retail assets. After studying this unit, you should be able to:

- explain the classification of assets
- classify the asset grouping which is based on purpose of usage
- narrate various asset utilization concepts
- calculate return on asset, and
- compute depreciation on asset

16.1 INTRODUCTION

Perhaps the only most damaging blunder in industry at the moment is the frequent practice of overlooking asset management concepts during the design, formulating and startup of foremost innovative facilities. The global cost of this poor management practice with relevance to assets pertains to retail is beyond doubt. New facilities familiarity unnecessary unplanned downtime, resulting in extreme costs and loss of critical production due to quality and quantity issues is also one of the agenda.

These losses can be let alone by implementing appropriate business processes and high-quality operational planning preceding to facility startup.

As everyone knows that any business is constituted of Assets either made of Fixed Assets, Machinery, Man-power or Non fixed assets. Thus, retail is also constituted of Assets, which are mainly constituted by fixed assets, Manpower, and Non fixed assets. While the topic of man-power assets is dealt under the development of 'managing manpower' topic we shall be dealing here with only non-human kind of assets, their significance and their management.



Source: http://www.imagicsolution.com/Asset_Management.php

Figure 16.1: Asset Management System

There are also certain software with the help of those assets of retail business is managed. The flavor of this we can see in this present unit. The aim of these software is to provide finance professionals and management decision-makers with the capability to witness both fixed and portable items, allowing detailed information to be stored against each asset. Portable assets can be recorded using the latest Pocket PC technology enabling new, transferred and disposed assets to be rationalized in the system. The aim of this Asset Management is not only to streamline the fixed asset management tasks, but also enables one to work out with effectual control and with well-organized and unproblematic reporting on summarized and detailed movements in fixed assets

16.2 CLASSIFICATION OF ASSETS

A retail store comprises of many assets that need managing. Generally the assets in the store can be classified into three categories viz: Fixed Assets, Semi-fixed Assets, and movable assets. Let us try to understand the kind of assets classified under each category.

Capital Retail is a well-known innovator in this sector. Capital Retail manages roll out disposal strategies for a cross section of retailers in addition to being recognized as leading shopping centre advisers, with over 7.5m sq ft of lettable space currently under remit. A partnership committed to extracting added value across our client portfolios through a pro active, lateral attitude to retail property.

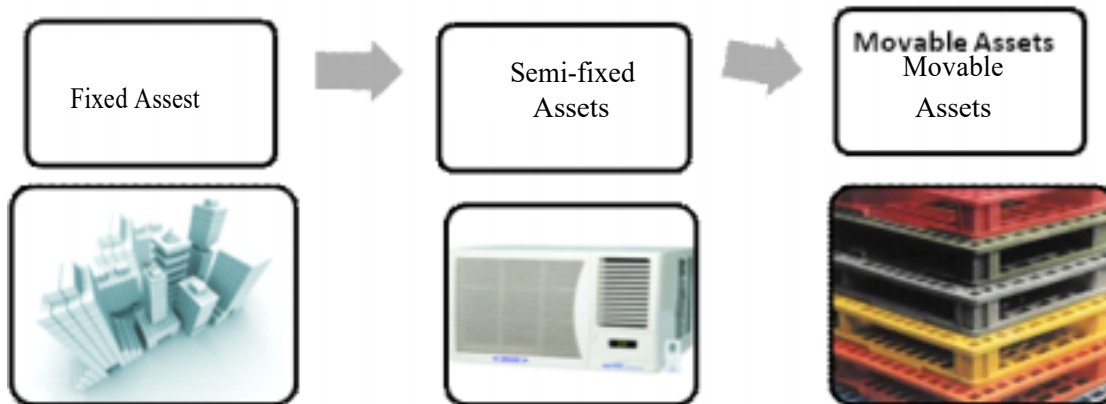


Figure 16.2: Pictorial Presentation of Classification of Assets

16.2.1 Fixed Assets

It can be defined as those types of assets which are fixed in nature and once installed cannot be easily removed or moved from one location to another as easily as other types of assets. Generally the assets that come under this class are the capital assets like Building, Fixed Structures, huge installations like Power Generators, Air Condition installation, Tiles or Wooden Flooring, Chiller units for fresh and perishable merchandise, Safe Deposit Vaults, Kitchen Equipments, etc.

16.2.2 Semi-fixed Assets

These are assets which are not totally fixed but can be moved with some efforts. For example Various Types of Fixtures used for display of materials like Water-falls, Big browsers, Four-way browsers, etc; Various Types of Storage Fixtures; Split or Window A.C. units; Display Tables & Racks; Cashiering/Billing Tables; Electronic Wall Units like TV Screens, Security Equipments/ Cameras, Fire-Alarm system, Fire-Prevention Equipment, Lighting Equipments, Electrical Fittings and Wiring, etc.

16.2.3 Movable Assets

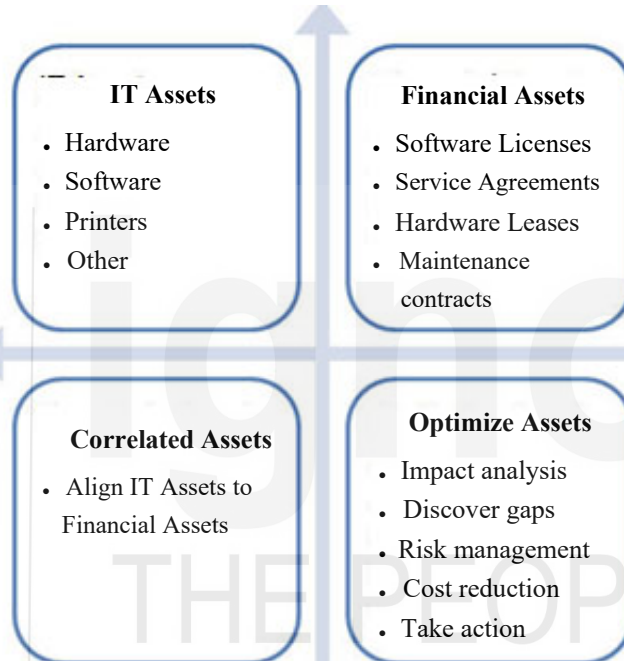
These are assets as is clear from their name are the ones which can be easily moved with little effort. For example Computer Desk Top System, Weighing Scales, Trolleys, Baskets, Small Display Units and Fixtures, Chairs, Sofas, Decorative Items, Photo-Frames, Poster Frames/ Display Arrangement on Walls used for Visual Merchandising and Branding, Flower Plants, Movable Fans, Bar-code Machine, Tagging/Labeling Gun, Bar-code reading hand-held machine, Security Tags/labels/ locks, Various types of Props used for window display as well as merchandise display, Mannequins, etc.

16.2.4 IT Assets

IT Management, which takes into consideration Hardware and software, is directly or indirectly comes under the domain of Classification of Asset. But when we talk in a retail perspective, IT had a great impact on Retail as technology is playing a great role in this sector.

Knowing which IT assets you have and how they are used has become a confront in today's complex and ever evolving IT infrastructure. An archetypal IT infrastructure has numerous diverse assets of a range of types, and new assets are being deployed daily to sustain the evolving business needs. Tracking hardware and software inventory has become a trouble for many IT managers.

But taking IT inventory is not adequate. Once you put on control over your IT inventory, the subsequent footstep is to link them against the associated financial assets, such as contracts, software licenses or service agreements, to comprehend how they transmit to the business and acquire any actions required. IT Asset Management will facilitate in effortlessly track the assets and comprehend how they contact the business.



Source: <http://www.samanage.com/solutions/it-asset-management.html>

Figure 16.3: Tracking the Asset

Challenge addressed by IT Asset Management

Knowing which IT assets you have, and their configuration, you can easily audit your entire infrastructure, and deploy proper hardware asset management processes.

- Tracking changes to your assets, such as new computers or software installations.
- Planning IT migrations and new IT projects.
- Correlating IT assets against business financial records such as contracts and licenses.

Reduce Costs by Better Managing and Administrating the IT Assets

IT Asset Management can facilitate reduce the cost of administrating the hardware inventory, improve security and ensure that one should be always ready for the next IT audit.

- Ensure software compliance by knowing what you have and what you use.
- Align IT with business goals to support business decisions such as purchasing or renewals.

- Improve productivity by empowering the IT administration team to easily track and manage assets and their changes.
- Detect unauthorized and illegal software by adopting a software usage policy and easily detecting any policy deviations.

Role of Computer Software in Facilitating Assets

In the present scenario when things are changing very fast, specially in retail sector, the role of computer software in facilitating assets is vital. The computer software had not only streamlined the asset but also facilitated the retail organization to integrate the process. We will elaborately look into these issues in the forthcoming subhead.

Under this head there are certain benefits pertaining to business and technology which will be highlighted in a tabulated format.

- Simplifies and Streamlines the Asset Management.
- Asset Value at the figure tip.
- Depreciation as per department, location, division, branch etc.
- Allocation and reallocation of Asset Management.
- Tracking of the movement of fixed assets.
- Insurance Tagging to Assets.
- Ensures complete visibility of assets across the enterprise.
- Provides greater controls and better financial discipline.
- Enhances decision making capabilities.
- Helps the to forecast and better planning.
- Helps to reduce cost and increase profitability.
- Boost business productivity.
- Keeps pace with the growing business needs.
- Periodic Reports.

16.3 ASSET GROUPING BASED ON PURPOSE OF USAGE

Further the Assets can be grouped as per the purpose of the usage or the final aim of having the said asset in place.

We can group assets into three types of usage categories as follows:

1. Creating Facility and Convenience for the Customers;
2. Creating Right Ambience for the Store as per Store Positioning and Product Strategies;
3. For Stock Storage, and Security Purpose.

16.3.1 Creating Facility and Convenience for the Customers

As the title suggest under this grouping we can list many assets class irrespective of whether the asset belongs to the fixed asset category or semi-fixed or movable category. For example Fixed Assets like Building, Fixed Structures, huge installations like Power Generators, Air Condition installation, Chiller units for fresh and perishable merchandise will fall under this grouping; but also semi-fixed assets like Water-falls, Big browsers, Four-way browsers, Split or Window A.C. units; Display Tables &

Racks; Electrical Fittings and Wiring will also be part of the grouping under creating facility and convenience for the customers. The movable assets like Computer Desk Top System, Weighing Scales, Trolleys, Baskets, Small Display Units and Fixtures, Chairs, Sofas, etc. will also fall under this grouping of assets. Thus we have seen irrespective of the asset class the assets under this category can be grouped under a specific purpose being served.

16.3.2 Creating Right Ambience for the Store as per Store Positioning and Product Strategies

Here the purpose is to have assets that will facilitate in directly or indirectly in creating right type of ambience for the store as per the decided strategic positioning of the store like store positioned for the high fashionable and high priced products, or store positioned for its high class elegance, or store positioned for its simplicity in ambience and overall appearance, or store positioned towards common public for its grocery products of daily use, and so on. The assets that can be classified under this grouping are as follows: Tiles or Wooden Flooring, Various Types of Fixtures used for display of materials like Water-falls, Big browsers, Four-way browsers, etc; Split or Window A.C. units; Display Tables & Racks; Electronic Wall Units like TV Screens, Trolleys, Baskets, Small Display Units and Fixtures, Chairs, Sofas, Decorative Items, Photo-Frames, Poster Frames/ Display Arrangement on Walls used for Visual Merchandising and Branding, Flower Plants, types of Props used for window display as well as merchandise display, Mannequins, etc.

16.3.3 For Stock Storage and Security Purpose

The purpose or the usage of this class of assets is clearly to store the material for the purpose of security reasons. The security reasons could be for the purpose of securing the assets or materials kept for sale and thereby prevent pilferage or securing the lives of the customers and other inhabitants within the store. The kind of assets that can be grouped under this category are Building, Fixed Structures, Safe Deposit Vaults, for securing the assets; good quality Kitchen Equipments for ensuring health of customers and safe handling by the kitchen users; Various Types of Storage Fixtures for safe storage of materials, Security Equipments/ Cameras, Security Tags/ labels/locks for preventing pilferage of materials; Fire-Alarm system, Fire-Prevention Equipment, good quality Lighting Equipments and Electrical Fittings and Wiring to prevent fires due to mishandling of equipments or fire-circuits etc.; Bar-code Machine, Tagging/Labeling Gun, Bar-code reading hand-held machine, for facilitating correct billing and thus avoiding pilferage and missing on smallest items purchased.

While grouping assets as per its usage we have seen there are some classes of assets which fall under more than one grouping like the asset class of buildings and fixed structures serve the purpose of security & safety as well as facility & convenience of the customers. Similarly assets like sofas and chairs serve the purpose of both convenience & facility to customers as well as fulfilling the purpose of creating right ambience for the store.

In terms of importance of this grouping we can rank them as follows. Assets falling under 'Stock Storage, and Security Purpose' can be listed as the most important, followed by 'Creating Facility and Convenience for the Customers' as the second most important category and the third important grouping is 'Creating Right Ambience for the Store as per Store Positioning and Product Strategies'.

Check Your Progress-A

A. Briefly Comment on the following statements.

- a) Retail Business is not constituted of fixed assets.

.....
.....
.....

- b) Retail assets in retail sector has grown at a much quicker manner.

.....
.....
.....

- c) Purpose of stock storage is clearly to store material for the purpose of security reason.

.....
.....
.....

B. Fill In the Blanks with the words given in the brackets.

- a) Man-power _____ is detail under the development of HR
[Asset / Liability]
- b) _____ end storage use very expensive material like granite to create impact
[Low / High]
- c) _____ store would have definitely many kind of lights for many purposes
[Bad / Good]

C. State whether the following statement is True or False

- a) Sofa and chair serve the purpose of both convenience & facility.
- b) Assets falling under “Stock Storage & Security Purposes” can be listed as most important stock storage.
- c) Flooring is not an integral part of retail look & feel.

D. Short Notes

- a) Differentiate between Fixed Assets and Semi-fixed Assets.

.....
.....
.....

- b) Differentiate between asset and merchandise in retail business.

.....
.....
.....

- c) List any four types of flooring in retail units.

.....
.....
.....

d) Movable Assets

.....

.....

.....

16.4 ASSET UTILIZATION

Every physical asset in the store needs attention and care to facilitate optimal asset usage. The general principle of “maintenance is better than cure” applies to all types of assets in the store. Sometimes the asset condition can be the difference between smooth functioning of the store versus breakdown during peak business hours. For instance, non-functional Diesel Generator sets during peak business time, particularly in these days of power-cuts, can throw the store into darkness and this can result into very low customer entry during peak time, thus, causing huge loss to store for just want of proper maintenance of DG sets.

It is essential for all retailers to generate a list of assets in their stores and create maintenance and safety plans for each of the assets. A list of possible assets in the store, their purpose, and their maintenance requirements are stated below.

1) The Flooring in the Retail Store: Flooring is an integral part of retail look and feel. Different types of retailers use different types of material to create the required store environment for the customers.

From the Above Figure it is clear that Combining colors, texture, functionality and a diversity of designs, nothing transforms the retail commercial environment like a contemporary finish. Research has shown that the look and feel of a commercial environment can sway the amount of time a customer spends browsing and even the urge to purchase. And color, has been proven to affect their moods. So, especially when it comes to flooring, floor polishing services will have a big impact due to the sheer surface area it covers.

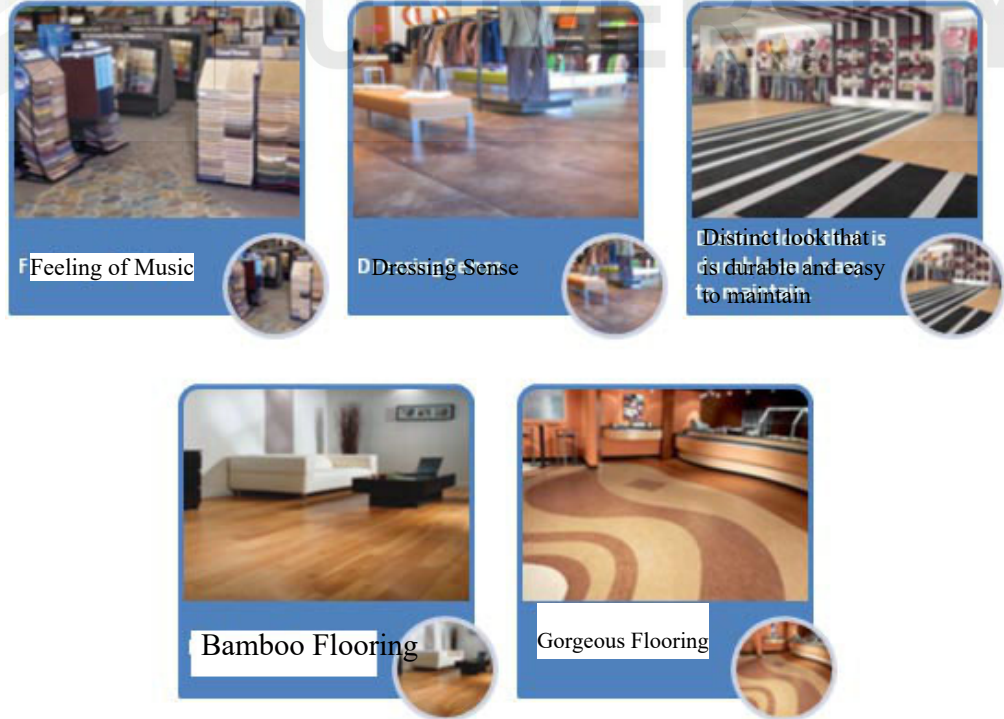


Figure16.4: Different styles of gorgeous and looking flooring

High end stores use very expensive materials like granite to create impact. Some retailers use carpets while others use ceramic tiles. Store managers need to familiarize themselves with the kinds of materials used for flooring in stores and ensure that they have a clear understanding of the kind of maintenance that these floors require, for example wooden flooring may require regular polishing to retain the shine of the floor. Dirty and ill maintained flooring gives a sense of untidiness and many customers get put off when they enter such stores. Thus, management will have to determine the frequency of cleaning or polishing of flooring in consultation with house-keeping experts, from in-house team or outside, and draw out a preventive maintenance program, so as not to affect the regular business of the store.

2) Lighting System: A good store would definitely have many kinds of lights for numerous purpose. Some lights are used to light up the floor while some are used to draw attention to the merchandise moreover on the floor or in windows. Every light has a rationale and fused bulbs if unattended can upshot into creating unintended dark and light effects on the retail floor. Many fashion retailers use lights as the means to create effect on the garments to make them look more attractive to customers. Further it is necessary to keep check on the fittings and fixtures used for light bulbs, to ensure there are no possibilities of short-circuit due to defective wiring or fittings. Thus, again a preventive maintenance based on the kind of fittings used can be drawn to avoid any mishappening.

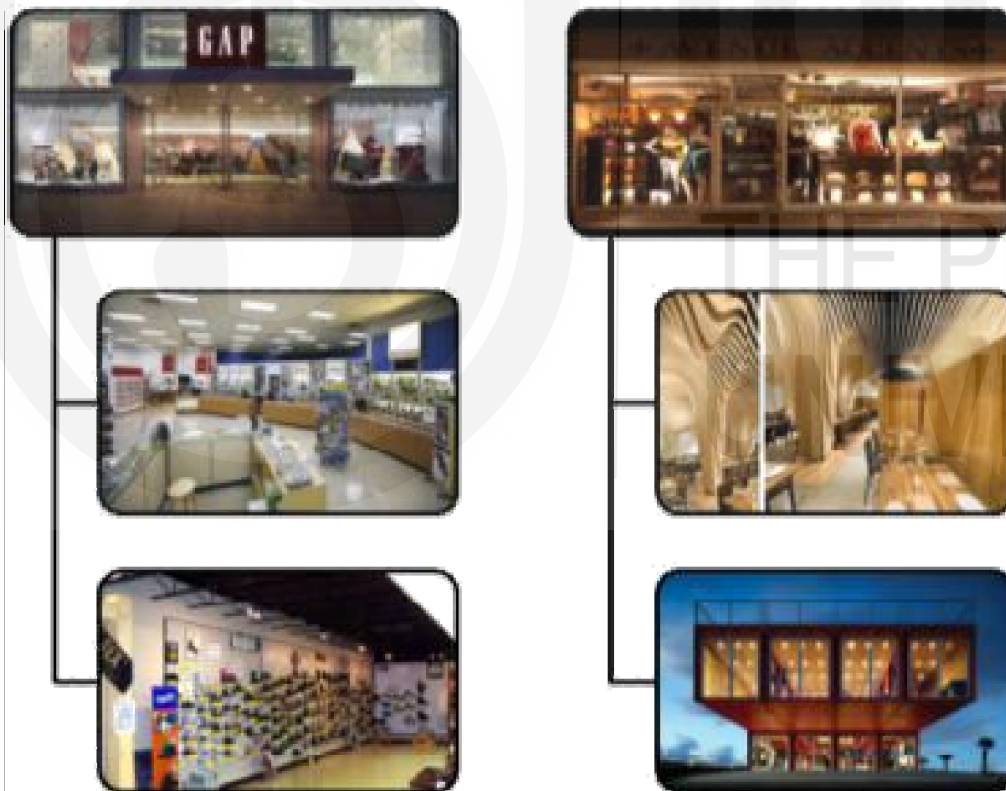


Figure 6.5: Lighting System in Store

3) Point-of-Sale(PoS) Machines: Point-of-Sales machines are Desk-tops used for mainly billing and generating reports and other information as per the need of the management. POS machines need to be functioning very efficiently as during peak hours, even if one machine is off the system it develops into big chaos as the line at each of the other billing desk

increases, which generates lot of dissatisfaction among the customers standing in queue. Further the POS system used on such machines and the machines per se must be of best quality to work smoothly, efficiently, and quickly. Dissatisfaction on this count may cause the customers to divert their purchases to other stores. This is particularly truer for grocery types of stores and supermarkets. Hence, the regular maintenance and updation of the machines and software to handle customer traffic and billing needs is of vital importance.

4) Various Types of Storage Fixtures: Storage fixtures need proper maintenance depending upon the type of material used in making the same. If a wooden fixture is used then naturally it is to be polished or painted as per the ambience of the store and more importantly applied anti-white ant/termite polish on regular basis to avoid soiling of material. If the fixtures are made from iron or steel, then these are to be treated with iron-oxide paints besides other decorative paints for anti-rusting effect. Thus, there needs to be at least once a year program to take necessary preventive steps in this respect.

5) Chiller Units for Fresh and Perishable Merchandise: These as the name suggest is very important part of the stores selling fresh vegetables, fruits, meats, fish, chicken, etc. Maintaining such unit is of extreme importance not only because any mal-functioning will cause loss of inventory kept within the unit but also loss of customers due to non-availability of their daily requirement or of low /sub-standard quality product; if the problem is not detected well in time by the personnel looking after the withdrawal of items from the storage unit. This being a specialized unit needs well qualified personnel to look after its daily maintenance and up-keep to ensure smooth and efficient working of the system all twenty-four hours. The preventive maintenance and up-gradation of technology depending on the new developments and need of the store will be required on regular basis. For this purpose the arrangement may have to be made with the supplier of the chilling unit only. The best course of action is to decide on all preventive maintenance features/up-gradation requirements during the negotiation stage at the time of purchase of the unit.

6) Air Conditioner Units: Imagine the Air Conditioning is not working during the summer time in any part of the country. The customers will fail to enter inside the store as it will cause a suffocating and very uncomfortable environment inside the store. Thus, it has become of great importance for every store, small or big, to install right AC system to create a cooling and comfortable environment within the store. AC maintenance is generally outsourced with specialized firms in this field or it is included as part of the purchase contract. Normally a quarterly/half yearly servicing of the AC plant or the unit is done.

7) Safe Deposit Vaults: In most of the big stores provision is made for storage of cash and other important documents, certificates, contracts etc. in safe deposit vaults. Generally for big super markets or grocery stores most of the transaction is done against cash, and hence there is need to regularly store the cash in safe deposit vault to avoid incidence of robbery or pilferage. Generally the cash deposited in safe deposit vault is withdrawn by an authorized person and further deposited with company's banker. The functioning of the safe deposit vault needs regular checking by the supplier of the vault as well as from security point of view the locking code needs regular changing to avoid vault breakage incidence.

8) Wash Room Fixtures, Fittings and Toiletries: It goes without saying that the maintenance of the store or a house is judged from the upkeep of its toilet. Hence, all large stores ensure that the fixtures and fittings used inside the toilet are well maintained and of best quality to reflect the proper standard of the store. Along with fixtures and fittings the store must ensure that proper toiletries like hand-wash liquid, soaps, room-fresheners, hand-towels, driers, toilet-papers, etc. are well kept. Again the maintenance and up-keep of these facilities are outsourced most of the time, as a proper team of house-keeping personnel is necessary to maintain the efficient servicing of the facility.

9) Various Electrical and Electronic Equipments: There will be many electrical equipments as well as electronic equipments like music system, lighting system etc. which needs regular maintenance to keep them running in the most efficient manner. These equipments always carry risk of causing short-circuits or power failures and hence need proper regular maintenance by an expert team from in-house or outsourced.

10) Weighing Scales: Fresh vegetables, fruits, and certain grocery items like rice, grains, dals, flours, etc. are sold on the basis of weight. Hence, the weighing scale must give proper weight to avoid dissatisfaction of customers by raising doubt in their minds about the exact weight of the quantity. Nowadays many stores use electronic based weighing scale which shows to the customer on the opposite side of the weighing or billing desk the exact quantity being weighed, thereby giving confidence to the customer about the correctness of the weight. Thus, it is of extreme importance to ensure the weighing scale is functioning to the dot and decimals. Again the maintenance and upgradation of such machines is outsourced to supplier of the said machine.

11) Kitchen Equipments: Many big stores have facility of in-house kitchen to provide tea and/or food to their employees. Hence, maintaining well equipped and clean kitchen is utmost importance from hygiene point of view. Certain large format stores have also started the facility of providing snacks and food items to customers visiting the store through separate stalls or counters. Thus, keeping the kitchen equipments neat and clean besides well functioning goes without saying. While regular cleaning is done by the staff looking after the kitchen the regular maintenance of equipments is outsourced to the specialized agency or to the supplier of such equipments.

12) Power Backup Equipments Like Diesel Generator Sets: As discussed in the initial part of this topic, maintaining Generator Sets has become of vital importance nowadays due to frequent power cut and power failure situation. Generator Sets being a highly technical equipment needs daily check-up and normal maintenance, and hence many store have to employ in-house team for looking after these equipments 24X7 days. Certain high caliber preventive check-ups/maintenance and up-gradation is usually out-sourced to the supplier of such equipments and charges for the same are usually negotiated at the time of purchase of such equipments. The industrial generators with a heavy duty facility from Kirloskar, Jackson, etc. could be the vendors who are in this field.

16.5 RETURN ON ASSETS

There are various ways in which one can find the return on Assets. Some of the common methods are as follows:



Figure16.6: Return on Assets

16.5.1 Net Profit on Total Net Asset Value

This is calculated by dividing the net profit earned during the year, after adjusting for interest, depreciation, and taxes; with Net Value of all the Assets used within the store after adjusting for depreciation on the asset. The said value will be in terms of ratio for converting the same to percentage return on Asset value we have to multiply the ratio with 100.

Thus for example:

Gross profit of the store is Rs 1000000;

Interest is Rs 100000;

Depreciation is Rs 300000;

Tax is Rs 120000

Carry forward Asset Value at the beginning of the year is Rs 10000000.

Thus, the

| |
|---|
| $\begin{aligned} \text{Net Profit} &= \text{Gross profit} - \text{Interest} - \text{Depreciation} - \text{Tax} \\ &= 1000000 - 100000 - 300000 - 120000 \\ &= 480000 \end{aligned}$ |
|---|

| | |
|-----------------|--|
| Net Asset Value | = Carry forward Asset Value – Depreciation |
| | = 10000000 – 300000 |
| | = 9700000 |

| | |
|-----------------|--|
| Thus Percentage | Return on Asset = $(480000 \div 9700000) \times 100$ |
| | = 4.95% |

16.5.2 Gross Profit on Total Net Asset Value

This is calculated by dividing the gross profit earned before adjusting for depreciation and taxes, but after adjusting interest, as this being taken as part of the expenses of the business; with net asset value after adjusting the asset value for depreciation. The said value received will be in the form of ratio for knowing the percentage return on Asset value we have to multiply the ratio with 100.

Let us see what will be percentage return on investment with gross profit as the basis with the help of the figures given in the above example.

| | |
|-----------------------------|--------------------|
| Gross Profit after Interest | = 1000000 – 100000 |
| | = 900000 |

| | |
|-----------------|---------------------|
| Net Asset Value | = 10000000 – 300000 |
| | = 9700000 |

Thus Percentage Return on Asset = $\text{Gross profit after Interest} \div \text{Net}$

| | |
|-------------------------|-------------------------|
| Depreciated Asset Value | |
| | = $900000 \div 9700000$ |
| | = 9.28% |

Hence, we can see the big jump in percentage return on Asset value when we convert the Net profit to Gross profit. Most of the businesses take gross profit after interest to calculate the return on investment in Asset.

One may also like to know the sales over the net Asset Value.

The above values provide significant insight into the utility value of the asset and one may like to see this utility value increases every year with the growth in business. The return on investment is also an indication of whether the right decision being made on the part of the management. If the investment is correct it will naturally reflect into higher return on investment by bringing in more traffic of satisfied customers.

The percentage of old customers returning to the store is also the indication of the best use of the asset by providing right kind of ambience and service to customers.

Since the topic of depreciation has come up in this section of the subject it will be appropriate to discuss the concept.

16.6 DEPRECIATION ON ASSETS

Depreciation is a statutory provision made under the Income –tax rule and thus has been adopted by accountants all over the world as a normal practice of maintaining proper account books showing depreciation of Assets under the accounting system.

The purpose of calculating depreciation is to allow for deterioration of the assets over a period of time due to wear and tear of the normal business use. Thus, by allowing certain percentage of the assets to be worn down over a period of time the accounting system is providing to the business with cash reserve for replacement of the asset or up-gradation of the asset by undertaking renovations and repairs. Hence,

for a running business this becomes a very important part of the process. Generally, there are two methods of depreciation system followed.

16.6.1 Straight Line Method

Under this method a fixed percentage (as statutorily decided) of the original asset value is deducted every year from the original Asset Value to determine the net depreciated value of the asset at the end of the year.

16.6.2 Written Down Value Method

In this method a fixed percentage (as statutorily decided) of the written down value (WDV) of the Asset at the beginning of the year is calculated and the said value is further deducted from the WDV of Asset at the beginning of the year, so as to arrive at the WDV of the Asset at the end of the year (and by logic it will be WDV of Asset for the beginning of the next year).

Check Your Progress-B

A. Briefly Comment on The Following Statements

a) Most big store have a provision for storage of cash.

.....

b) Every physical asset in the store needs attention.

.....

c) Maintenance is better than care.

.....

B. Fill In the Blanks with the words given in the brackets

a) Normally a _____ servicing of the AC plant on the unit is done (**Quarterly / Monthly**).

b) Functioning of the safe deposit would needs _____ checking (**Weekly / Regular**).

c) _____ is a statutory provision made under the Income Tax (**Appreciation / Depreciation**).

C. State whether the following statement is True or False

a) Flooring is an integral part of retail look & feel.

b) Many fashion retailers are lights as the means to create effect.

c) Many big stores won't have facility of in-house kitchen to provide food / tea to their employees.

16.7 LET US SUM UP

From the above unit, we are now in a conclusion that the following points mentioned below would best summarise the above thoughts.

Generally the assets in the store can be classified into three categories viz: Fixed Assets, Semi-fixed Assets, and movable assets. Further the Assets can be grouped as per the purpose of their use or the final aim of having the said asset in place. We can group assets into three types of usage categories as follows: (a) Creating Facility and Convenience for the Customers; (b) Creating Right Ambience for the Store as per Store Positioning and Product Strategies; (c) For Stock Storage, and Security Purpose.

While grouping assets as per its usage we have seen there are some classes of assets which fall under more than one grouping. Every physical asset in the store needs attention and care to enable optimal asset usage. The general principle of “maintenance is better than cure” applies to all types of assets in the store. Sometimes the asset condition can be the difference between smooth functioning of the store versus breakdown during peak business hours.

There are various ways in which one can find the return on Assets. Some of the common methods are as follows: (a) Net Profit on Total Net Asset Value (b) Gross profit on Total net Asset Value

Depreciation is a statutory provision made under the Income –tax rule and thus has been adopted by accountants all over the world as a normal practice of maintaining proper account books showing depreciation of Assets under the accounting system. Generally, there are two methods of depreciation system followed which are as follows: (a) Straight Line method and (b) Written Down Value method:

16.8 KEYWORDS

- Lighting System** : Lighting or illumination is the purposeful application of light to accomplish some aesthetic or practical effect. Lighting includes use of both artificial light sources such as lamps and natural illumination of interiors from daylight. Lighting can also be an inherent constituent of landscaping.
- POS Machine** : Point of sale/service (POS) machine is used to demeanor retail transactions. It can make available numerous services, including credit card processing, check reading and cash transactions, depending on the model. These devices can be set up practically somewhere, from grocery stores to gas stations. The technology used in POS machines results in a prompt and secure transaction.
- Depreciation** : Depreciation is a statutory provision made under the Income –tax rule and thus has been adopted by accountants all over the world as a normal practice of maintaining proper account books showing depreciation of Assets under the accounting system.

16.9 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress-A

- B) (a) Asset (b) High (c) Good
C) (a) True (b) True (c) False

Check Your Progress-B

- B) (a) Quarterly (b) Regular (c) Depreciation
C) (a) True (b) False

16.10 TERMINAL QUESTIONS

1. What are the three categories of assets? Explain.
2. In how many groups the assets can be categorized based on usage. Also explain each of the usage categories in a retail perspectives
3. Discuss the significance of at least five different assets and the care and maintenance needs to be taken for these assets.
4. Explain the different methods of calculating Return on Assets with a suitable example.
5. What is the significance of depreciation on assets?
6. Explain the different methods of calculating depreciation value.

16.11 FURTHER READINGS

Books

- Brigham, Eugene F. and Michael C. Ehrhardt (2004). Financial Management. Austin, TX: Harcourt Publishers.
- Burns, William T., Jr. (2005). Accounting for Managers. Mason, OH: Thomson/ South-Western.
- Higgins, Robert C. (2001). Analysis For Financial Management. New York, NY: McGraw-Hill/Irwin.
- Horngren, Charles T. (2005). Accounting. Upper Saddle River, NJ: Prentice-Hall, Inc.
- Stickney, Clyde P., Paul Brown and James M. Wahlen (2004). Financial Reporting and Statement Analysis. Mason, OH: Thomson/South-Western.
- Weisel, James A. (2005). "Add Even More Muscle to What-If Analyses," Journal of Accountancy, Volume 199 (March), 76-79.
- Werner, Michael L. and Kumen H. Jones (2004). Introduction to Financial Accounting. Upper Saddle River, NJ: Prentice-Hall, Inc.

Website and Online Resource

- www.investopedia.com
- www.tax4india.com/capital-gain
- www.eurojournals.com/IRJFE4%207%20grigoris.pdf

UNIT 16 WORKING CAPITAL

Structure

- 17.0 Objectives
- 17.1 Introduction
- 17.2 Working Capital
 - 17.2.1 Meaning
 - 17.2.2 Types
 - 17.2.3 Significance
- 17.3 Factors Influencing Working Capital Requirement
- 17.4 Operating Cycle
- 17.5 Ascertaining Working Capital Requirement
- 17.6 Financing of Working Capital
- 17.7 Role of Money Market
- 17.8 Working Capital Control and Banking Policy
- 17.9 Let Us Sum Up
- 17.10 Key Words
- 17.11 Terminal Questions Exercises

17.0 OBJECTIVES

After studying this unit, you should be able to:

- explain working capital and the factors that influence it;
- describe its importance in the financial management of firms;
- discuss the operating cycle concept;
- calculate the working capital requirement;
- measure the financial impact of credit and working capital policies;
- discuss the methods available to finance working capital requirements
- explain the role of money market and banking policy; and
- Examine the problem of working capital control.

17.1 INTRODUCTION

Most companies concentrate their managerial efforts on controlling profit. They try to increase sales revenue, reduce their production cost and control their overheads. Operational budgets are drawn up, standard costs are set and considerable effort is expended on identifying and rectifying variances of actual results against budgets and standards. Managing the area of working capital can help between business survival and business failure.

However, few companies worry much about managing the area of working capital management. Many profitable companies fail because their management could not manage working capital effectively.

Working capital management is concerned with the management of short term assets and liabilities. Assets included here are cash, marketable securities, accounts receivable, inventory, prepaid expenses and other current assets and liabilities such as accounts payable, wages payable, and accruals. Working capital management is thus the process of planning, monitoring, controlling the mix of current assets and liabilities in a firm. In addition, it also involves deciding how the current assets are to be financed. Financing choices could include the mix of current as well as long term liabilities. This unit explains the meaning, significance and types of working capital, factor affecting and ascertaining working capital requirement, ways of financing working capital, role of money market and working capital control.

17.2 WORKING CAPITAL

17.2.1 Meaning

Working capital is the name given to the difference between the current assets and current liabilities. Working capital is alternatively known as "Net Current Assets" or "Net Working Capital". Gross Working Capital is the total of current assets.

It includes four items:

- (a) **Stock** : Stocks of raw materials, work-in-progress and finished goods.
- (b) **Debtors** : Amounts owed to the company, mainly from customers in respect of sales made on credit.
- (c) **Cash** : Bank balances, cash holdings and short term investments,
- (d) **Creditors** : Amounts owed by the company, mainly to suppliers of raw materials, services (electricity, water, telephone, rent, etc.) unpaid tax, unpaid dividends.

Illustration 1 : The following figures have been extracted from a company's balance sheet:

| | Rs. |
|-----------------------------|------------------|
| CURRENT ASSETS: | |
| Stocks | 27,00,000 |
| Debtors | 40,00,000 |
| Cash | 5,000 |
| TOTAL CURRENT ASSETS | 67,05,000 |
| CURRENT LAIBILITIES: | |
| Creditors | 17,05,000 |

NET CUIRRENT ASSETS or NET

50,00,000

WORKING CAPITAL

What do these figures tell us? At the first glance, they would indicate:

- There are stocks but, a company needs stocks if it is to run its business.
- There are debtors but that is just a consequence of making credit sales.
- There does not seem to be much cash available so, may be, the company should be considering taking a loan or increasing capital to create a cash buffer.
- There are creditors, but may be they have scope to be extended further.

But one has to go in detail to know the level of working capital that is acceptable for the company.

Some of the other relevant questions to be asked are:

What are the annual sales of the company? How much of this is credit sales? Is that an industry norm?

What are the annual purchases? What is the inventory policy? Is there a way to reduce inventor without impacting sales?

In addition to the cash balance, does the company have short term marketable securities?

Is company getting enough credit from the suppliers? How many months purchases does this represent?

In order to make these judgments, several types of ratios are used that measure liquidity, adequacy and efficiency of working capital. These concepts will be elaborated later.

Some of the relevant business decisions that have to be taken in the context of working capital management are:

- How should the firm manage its cash?
- To whom should the firm grant credit?
- How much inventory should the firm keep?
- What should be the composition of the firm's current debt?

17.2.2 Types

A company's need for working capital depends on the permanent and fluctuating current assets that it has to support. As such working capital may be permanent (fixed) or fluctuating (variable).

Fluctuating current assets are those that are affected by the cyclical nature of sales. For example, during the summer months, a soft drinks manufacturer has to maintain larger stocks in anticipation of growing sales than in winter months. Permanent current assets are those assets

that held to meet the company's minimum long-term needs e.g. safety stock of cash and inventories.

17.2.3 Significance

To get the best possible returns firms should not keep unproductive assets and should finance with the cheapest available funds. It is advantageous for the firm to invest in short term assets and to finance with short term liabilities. For a firm there is uncertainty of demand, price, and quality, availability of its own products and those of suppliers. There are transaction costs of purchasing or selling goods. Firms have limitations on production capacity and technology that it can use. There are fixed as well as variable costs associated with producing the goods.

The strategies using working capital accounts are the ways firms can address many of the problems that result from the imperfect and constrained world in which they deal.

In addition to its use as a means of handling uncertainty, the management of working capital plays an important role in maintaining the financial health of the firm during normal course of business.

17.3 FACTORS INFLUENCING WORKING CAPITAL REQUIREMENT

The size and nature of current assets to be held by a firm depends on a number of different factors such as:

- Type and nature of industry
- Length of the operating cycle
- Size of the business
- Working Capital Policy
- Efficiency of operations

The optimal level of working capital investment is the level expected to maximize shareholders wealth. It is a function of several factors, including variability of sales and cash flows and the degree of operating and financial leverage employed by the firm. Therefore, no single working capital investment policy is necessarily optimal for all firms. The level of investment lies to be tailored to suit the risk profile, funds availability and industry norms.

The firm not only lies to make a choice of the level of current assets required to support the business, but it also lies to determine what proportion is to be financed out of long term funds (equity or debt) and what proportion out of short term funds.

A prudent structure for financing current assets would be to have a portion of the current assets funded out of current liabilities and short term debt, but also leave a portion of the current assets funded out of long term funds. This provides greater financial stability.

Check Your Progress A

- 1) What is the difference between net working capital and cash?

.....
.....
.....
.....

2) What is the optimum level working capital?

.....
.....
.....
.....

3) What are fluctuating current assets?

.....
.....
.....
.....

17.4 OPERATING CYCLE

The major flow in terms of its yearly magnitude is the working capital cycle, e.g. in a manufacturing concern this cycle is cash- raw material-work-in progress- inventory- debtors-cash. A significant point to note here is that the turnover or velocity of resources moving through this cycle is the highest compared to any other flow in and out of the cash account.

This cycle is very important to the firm's survival. Imagine a bath tub with both the drain and the tap open. As long as the water (in this case cash) coming in to the system is higher than the amount drained from the system there will be enough water in the tub (cash to run operations). In other words, various items of working capital must bear a relationship with each other and maintain a balance. As long as the firm is able to regularly collect its receivables, it will have the cash to pay its bills and invest in further growth. But, if for some season, the resources stop flowing (water level) in the business (bath tub) profits begins to fall.

The firm will then be unable to meet its critical payment obligations to suppliers, employees, government taxes etc., causing significant embarrassment, and even sometimes winding up action from creditors.

An easy solution would be to keep high cash balance in reserve. This is where the firm must make trade offs between liquidity and profitability. Cash is the least profitable asset. Therefore, one of the key decisions managements must make is the ideal trade off between liquidity and profitability and the right cash balance to be maintained. This will vary from industry to industry and will also depend on the seasonality of the business.

Working Capital Cycle

Cash flows in a cycle into, around and out of a business. It is the business' life blood and every manager's primary task is to keep it flowing and to use the cash flow to generate profits. If a business is operating profitably, then it should, in theory, generate surplus cash. If it doesn't generate surpluses, the business will eventually be closed.

Importance of Cash

When planning the short or long term funding requirements of a business, it is equally important to forecast the requirements as it is to project profitability, While profit, is a vital indicator of the performance of a business, the generation of a profit does not necessarily guarantee its development, or even the survival. A number of businesses, in spite of being profitable fail due to poor management of working capital leading to acute shortage of cash to run the business.

Cash vs. Profit

Organizations typically make the mistake of getting carried away by profitability statement without focusing simultaneously on cash flow. It is extremely important to make a distinction between cash flow and profitability.

Sales and costs and therefore, profits do not necessarily coincide with their associated cash inflows and outflows. While, a sale may have been secured and goods delivered, the related payment may be deferred as a result of giving credit to the customer. At the same time, payments may be deferred as a result of giving credit to the customer. At the same time, payments must be made to suppliers, staff etc. cash must be invested in rebuilding depleted stocks, new equipment may have to be purchased etc, the net result is that cash receipts often lag cash payment and, whilst profits may be reported, the business may experience a short-term cash shortfall. For this reason it is essential to forecast flows.

The following example illustrates the timing differences between profits and cash flows :

Rs. Lakhs

| Income Statement | Three months |
|------------------|--------------|
| Sales | Rs. 75 |
| Costs | Rs. 65 |
| Profit | Rs. 10 |

The breakup is as follows:

| Cash flows Relating month 1 | Month 1 | Month 2 | Month 3 | Total |
|--------------------------------|---------|---------|---------|-------|
| Receipts from sales | 20 | 35 | 20 | 75 |
| Payments to suppliers etc. | 40 | 20 | 5 | 65 |
| Net cash flow | (20) | 15 | 15 | 10 |
| Cumulative Net cash flow | (20) | (5) | 10 | 10 |

This shows that the cash associated with the reported profit for Month 1 will not fully materialize until Month 3 and a serious cash short-fall will be experienced during Month 1 when receipts from sales will total only 20 lakhs as compared with cash payments to suppliers of Rs. 40 lakhs.

Working Capital Policy

The working capital needs and level of different current assets are estimated on the basis of sales forecast of goods and services. The efficient working capital management helps to increase both liquidity and profitability of a firm. It is not so easy to forecast sales and thus forecast of current assets is also uncertain. To meet this uncertainty, the financial manager has to keep a minimum level as well safety level for each of the current assets at different level of sales. The safety level is important component of working capital policy. There are three approaches to determine the working capital policy: (a) Conservative approach, (b) Aggressive approach, and (c) Moderate approach. In case of conservative working capital policy, the firm does not want to take risk. For every increase in sales, the level of current assets will be increased more than the proportion. Such a policy helps to reduce the risk of shortage of working capital by increasing safety component of current assets. Further such policy helps to reduce the risk of non-payment of liabilities.

In case of aggressive working capital policy the increase in sales does not result in proportionate increase in current assets. Such policy may throw the firm towards insolvency because of low liquidity. Further the profitability of firm will be reduced. A middle path of moderate working capital is better. In such a policy the increase in sales level will proportionately increase the level of current assets. In simple words if the sales are expected to increase 10%, the current asset level is to be increased by 10%. If the current asset level is to be increased 15%, it is conservative approach and if the current asset level is increased by 8% it is aggressive approach.

Trade off between Liquidity and Profitability

The working capital policy also has to maintain a risk and return trade off between firm's liquidity and profitability.

In considering liquidity (risk) and profitability (return) two important points are to be considered: (a) costs and (b) risks. In aggressive policy, the investment in current assets is low. That will involve shortage of cash flow; fall in production and sales and loss of customer's goodwill. In conservative approach the investment in current assets is higher. That involves carrying costs in the form of financing a higher level of current assets like granting liberal credit to customer. The second element risk increases if there is lower level of liquidity. The firm may become technical insolvent by not paying current liabilities as they occur. So there should be a trade off between profitability and liquidity. Let us see the above example again.

If the customer is willing to pay full amount in Month 1 if he gets a cash discount of 2%. Then the profit after discount falls from Rs. 10 lakhs to Rs. 8.5 lakhs. The cash flow and the profitability situation would look as follows:

| Income Statement | Three month (Rs. In lakhs) |
|------------------|----------------------------|
| Sales | 73.50 |
| Costs | 65.00 |
| Profit | 8.50 |

| Cash flows relating month 1 | Month 1 | Month 2 | Month 3 | Total |
|-----------------------------|---------|---------|---------|-------|
| Receipts from sales | 73.50 | | | |
| Payments to suppliers etc | 40.00 | 20.00 | 5.00 | 65.00 |
| Net cash flow | 33.50 | (20.00) | (5.00) | 8.50 |
| Cumulative net cash flow | 33.50 | 13.50 | 8.50 | 8.50 |

The faster a business expands the more cash it will need for working capital and investment. Good management of working capital will generate cash to help improve profit and reduce risks. Bear in mind that the cost of providing credit to customers and holding stocks can represent a substantial proportion of a firm's total profits.

There are two elements in the business cycle that have impact on cash –inventory (stocks and work-in-progress) and receivables. The main sources of cash are payables (creditors and equity and loans).

Each component of working capital has two dimensions-time and money. When it comes to managing working capital –Time is Money. If we can get money to move faster around the cycle (e.g., collect monies due from debtors more quickly) or reduce the amount of money tied up (e.g., reduce inventory levels relating to sales), the business will generate more cash or it will need to borrow less money to fund working capital. As a consequence, we reduce the cost of bank interest or we will have additional free money available to support additional sales growth or investment. Similarly, if we can negotiate improved terms with suppliers e.g., get longer credit or an increased credit limit, we effectively create free finance to help to fund future sales.

| If you | Then |
|---|----------------------------------|
| • Collect receivable (debtors) faster | You release cash from the cycle |
| • Collect receivable (Debtors) slower | Your receivables soak up cycle |
| • Get better credit (in terms of duration of amount) from suppliers | You increase your cash resources |
| • Shift inventory (stocks) faster | You free your cash |
| • Move inventory (stock) slower | You consume more cash |

It can be tempting to pay cash, if available, for fixed assets e.g. computers. plant, vehicles etc. If we pay cash, remember that this is no longer available for working capital. Therefore, if cash is tight, operating cash flows shouldn't be diverted for financing capital investment. Capital investment should be separately funded via loans, equity, leasing etc.

17.5 ASCERTAINING WORKING CAPITAL REQUIREMENT

Firms suffer from inadequate cash flow for a variety of reasons including rapid growth, recession, poor working capital management programmes and many other factors. Working capital management, also referred to as short-term financial planning includes the management of cash, cash equivalents and short-term financial planning is an activity that is critical to every business and lack thereof can easily lead to business failure. Cash is essential for survival of all corporations. Management must try all components of budgets together and produce a proforma (forecast) cash budget to ensure that the firm's desired levels of liquidity are maintained.

A key component of a firm's strategic plans its budgeting system. The firm's budget serves to translate management's goals and objectives into a financial roadmap for success. Without proper budgeting system, many firms get off the course resulting in unnecessary loss of profits, cash flow and an increased chance of business failure.

Cash flow Forecasting

Normally, the main sources of cash inflows to a business are receipts from sales, increases in bank loans, proceeds of share issues and assets disposals, and other income such as interest earned. Cash outflows include payments to suppliers and staff, capital and interest repayments for loans, dividends, taxation and capital expenditure.

Net cash flow is the difference between the inflows and outflows within a given period. A projected cumulative positive net cash flow over several periods highlights the capacity of a business to generate surplus cash and conversely, a cumulative negative cash flow indicates the amount of additional cash required to sustain the business.

Cash flow planning entails forecasting and tabulating all significant cash inflows relating to sales, new loans, interest received etc., and then analyzing in detail the timing of expected payments relating to suppliers, wages, other expenses, capital expenditure, loan repayments, dividends, tax interest payments etc. The difference between the cash inflows and outflows within a given period indicates the net cash flow. When this net cash flow is added to or subtracted from opening bank balances, any likely short-term bank funding requirements can be ascertained.

A cash flow model can be used to compile forecasts, assess possible funding requirements and explore the likely financial consequences of alternative strategies. Used effectively, a model can help prevent major planning errors, anticipate problems, and identify opportunities to improve cash flow or provide a basis for negotiating short-term funding from a bank.

When preparing cash flow projections, be aware of the dangers of:

- Overstating sales forecasts
- Underestimating costs and delays likely to be encountered
- Ignoring historic trends or performances by debtors etc.
- Making unduly-optimistic assumptions about the availability of bank loans, credit, grants, equity etc.

- Seeking spurious accuracy whilst failing to recognize matters of strategic importance.

These problems can arise as the result of oversight or knowledge, or because of excessive optimism. They can lead to under-estimation of the cash and other resources required sustaining or developing a business with potentially disastrous consequences.

Once the cash flows projections have been prepared, they should be critically examined and used as a management tool to control and improve the businesses expected cash position.

Other Techniques

Besides the cash forecasting method, following are other methods of ascertain working capital requirements.

- 1) Matching or Hedging approach
- 2) The percent of sales method
- 3) Financial statement method
- 4) Operational Cycle method
- 5) Regression analysis method

According to matching principle the current asset should be financed according to the period of cash flow it generate. The source to finance it also should be of the same period. The rule is that the length of finance should match with the life duration of the asset.

Under percent of sales methods the working capital is determined as a percent of forecasted sales.

Financial statement method may depend on either balance sheet or profit and loss adjustment account. Under balance sheet method a forecast is made of various assets and liabilities of the business. Afterwards, the difference between the two is taken which will indicate either cash surplus or cash deficiency. Under profit and loss adjustment method forecasted profit are adjusted on cash basis. The starting point is cash from operations and non cash expenses are deducted from it e.g., depreciation. To the figure arrived at increases in current assets and decrease in current liabilities is taken as decrease in cash resources and vice-versa.

The operational cycle method has already been explained. Under regression analysis method the following formula is used.

$$T=(r-c) +w + f + b$$

Where:

t = total period of operating cycle in days

r = average inventory of raw materials

c = average trade creditors

w = average work in progress

f = average inventory of finished goods

b = average book debts

Illustration 2: From the following information you are required to estimate the net working capital.

| | Cost per unit |
|---------------------------------------|------------------------|
| | Rs. |
| Raw Materials | 400 |
| Direct Labour | 150 |
| Overheads (excluding depreciation) | 300 |
| | 850 |
| Total Cost | |
| Additional Information: | |
| Selling Price | Rs. 1,000 per unit |
| Output | 52,000 units per annum |
| Raw material in stock | average 4 weeks |
| Work-in-progress: | |
| (Consume 50% completion | |
| Stage with full material consumption) | average 2 weeks |
| Finished goods in stock | average 4 weeks |
| Credit allowed by creditors | average 4 weeks |
| Credit allowed by debtors | average 8 weeks |

Cash at bank is expected to be Rs. 50,000. Assume that production is sustained at an even pace during the 52 weeks of the year. All sales are on credit basis. State any other assumption that you might have while computing.

Solution:

Statement showing Net Working Capital Requirements

| Current Assets: | Rs. |
|---|--------------------|
| Stock of Raw Material (4 weeks) | |
| $52,000 \times 400 \times 4 / 52$ | 16,00,000 |
| Stock of work-in-progress (2 weeks) | Rs. |
| Raw Material = $52,000 \times 400 \times 2 / 52$ | = 8,00,000 |
| Direct Labour (50% completion) | |
| $52,000 \times 150 \times 2 / 52 \times 50 / 100$ | = 1,50,000 |
| Overheads (50% completion) | |
| $= 52,000 \times 2 / 52 \times 50 / 100 \times 300$ | = 3,00,000 |
| Stock of Finished goods (4 weeks) | 12,50,000 |
| $= 52,000 \times 850 \times 4 / 52$ | 34,00,000 |
| Amount blocked in debtors at cost (8 weeks) | |
| $= 52,000 \times 850 \times 8 / 52$ | 68,00,000 |
| Cash at Bank | 50,000 |
| Total Current Assets | 1,31,00,000 |
| Less Current Liabilities: | |

| | |
|---------------------------------------|-------------|
| Creditors for raw materials (4 weeks) | |
| = 52,000 x 400 x 4/52 | 16,00,000 |
| Net Working Capital required | 1,15,00,000 |

Working Notes

- 1) Profit has been ignored and debtors have been taken at cost. The profit has been ignored because this may not be used as a source of working capital.
- 2) It has been assumed that raw material is introduced at the beginning of the process.

Check Your Progress B

- 1) What is working capital cycle?
- 2) State the difference types of working capital policies?
- 3) Define matching' approach used or determining working capital?

17.6 FINANCING OF WORKING CAPITAL

Once financial projections are completed, it will be clear as to how much money is needed to be raised in order to finance the long term and short term needs of the business. The two main ways of financing a business are equity financing and debt financing.

Equity Financing

Equity capital is primarily used to fund long term assets and provide margin money for working capital.

Debt Financing

Debt capital is the money a business borrows. It must be fully repaid with interest, over a specific time period. While lenders do not share in business profit as investors do, they must be repaid with interest whether the business is showing a profit or not.

When determining the type of debt financing that is right for a business, the basic rules are:

- Finance day-to-day operations (working capital) with short-term operating loans.
- Finance long-term fixed assets with longer-term loans or mortgages.

- A portion of your short term working capital requirement may be funded through term sources.

Working capital management includes decisions such as level of cash balance to be maintained, credit limit to be extended and amount of borrowing to be done under the line of credit etc.

Informal forms of Credit

Trade Credit

This is the most simple and obvious mode of funding purchases. When firms purchase goods and services on credit terms, it is known as trade credit. Trade credit is generally given on open account basis. The supplier evaluates the credit worthiness of the buyer before supplying the goods and provides appropriate credit terms depending on the credit worthiness of the buyer. Typically the documentation is only the invoice that mentions item description quantity, value and terms of payment. The buyer accepts the goods and in effect agrees to pay the supplier as per invoice unless there is a communication from the party stating otherwise. Credit terms specify conditions under which a firm is required to pay back the money due including the length commencement date of credit period, cash discount of any.

Obtaining trade credit is normally easy, informal and not too difficult and hence forms an attractive form of finance. Also if the funds position improves and the firm no longer requires the credit, it gives the buyer the flexibility to make use of the credit as and when required.

Sometimes instead of open credit, Promissory Notes are signed by the buyer which clearly specifies the amount to be paid and the due date formally recognizing the obligations to pay. While trade credit is flexible, informal and relatively easy way to find operations, the associated costs have to be considered. By the very nature of this credit, it is normal and often the cost of credit is not apparent either on the invoice or any other documentation that is signed, but is normally built into the price of the product. Therefore, it is necessary to find out the cash discount that the supplier is willing to offer for immediate payment without credit and make valuate the relative costs of trade credit and other sources of outside funds.

Stretching Accounts Payable

Stretching accounts payable beyond the standard agreed trade credit terms is an option that may be sometimes available not normally at a high cost. Interest and penalties for non payment on time would also be charged. That might be an effective way of funding small seasonal requirements of cash beyond the normal requirements. If a company gets a reputation of consistently paying late, suppliers will either refuse to offer any cash discounts to the company, may load up the prices of good and services significantly before quoting to the company or refuse to deal with the company altogether. Therefore this informal may of funding the operations has to be used very judiciously.

Accrued Expenses and Deferred Income

Accrued expenses are expenses such as wages payable, taxes payable, interest payable etc. that are accrued but not yet due. From the time when these charges accrue upto the point that they become due, they are available as sources of funds on the balance sheet. The company may normally have no control over how long these amounts can be used to for funding operations, they merely happen to be available for a short period of time between accrual and due date and can be taken into account while forecasting cash requirements.

Deferred income consists of payments received from customers for goods and services yet to be delivered, hence constitute a source of funds. Advance payment received from customers are not “earned” by the firm until delivery of goods or services, hence are reflected as liability in the books as “Advance from customers”, “Deferred income” or “Billing in Advance”.

Formal Credit Arrangements

Commercial Paper

Commercial paper is a short term unsecured promissory note issued by large corporations. The maturity could range from days to months. It may be available at rates lower than the prevailing prime lending rate. This is a good funding option for large, financially sound corporations with good standing in the market place. Commercial Paper is sold on a discount basis. This means that if a paper for Rs. 10 lakhs is issued, the issuer gets 10 lakhs less the interest payable on maturity. On the due date the company has to repay the face value of the commercial paper in this case Rs. 10 lakhs. Commercial paper is typically bought by large corporations and banks with surplus funds to invest. In addition to the interest cost there might also be an arrangement or placement fee payable to the dealer who arranged for the sale of the issue. This cost also has to be factored in the cost of funds.

However, this is not a very reliable form of funding and may not be available to corporations at all points in time since this is also very much dependent on external market conditions such as liquidity, surplus cash available with corporations to invest etc. There is no provision for prepayment and hence, the company is forced to hold the investments till maturity and incur interest cost, even if it does not need the funds anymore. Therefore, the company should also have in parallel, other lines of credit open that would provide greater reliability (availability in time of need) and flexibility (option to repay when needs over).

Bank Credit Arrangements

Bank credit is available in several different forms such as working capital term loan, cash credit, overdraft, bill discounting etc., that are fund based and letters of credit bank guarantee etc. that are non fund based credit. Each of these options will have a combination of interest rate maturity, flexibility, collateral security etc. Typically companies would use combination of facilities to drive an optimal solution that trades off interest cost, availability, repayment flexibility etc.

Line of Credit

Line of credit is an agreement between the bank and the borrower wherein the bank commits a certain line of credit permitting the company to borrow upto that limit during a specified period. Within this line, the actual instruments for borrowing could be several such as cash credit, bill discounting etc., depending on the sub limits under each category that have been established. The most important factor here is the fact that the funds are available when the company needs it and is a flexible means of financing.

There would, in addition to interest that is charged for the period of utilization, be a commitment fee that is charged upfront at the time of sanctioning the line of credit, irrespective of usage, that has to be factored as part of cost of funds.

There could also be uncommitted lines of credit arrangement where the bank agrees to provide a line of credit provided as long as the conditions do not change.

The line of credit may typically carry positive covenants such as:

- Minimum margin money for working capital to be maintained.
- Certain financial ratios that must be maintained, such as the current ratio
- Providing regular financial statements, stock and debtor's statements etc.

Or some negative covenants such as:

- Limiting the capital expenditure that may be incurred
- Selling an existing business or acquiring a new business
- Managerial remuneration for senior executives etc.

Revolving Credit Arrangement

It is similar to a line of credit, but is revolving in nature as the name suggests. This means that as and when the amounts drawn are repaid, the facility becomes available once again and hence against a particular loan a borrower may borrow and repay several times. Typically such revolving lines may be available from 1-3 years and renewal option will be reevaluated at the time of expiry of the credit arrangement.

- 1) Cash Credit/Overdraft
- 2) Single payment loans
- 3) Working Capital Term loan

A working capital term loan is a specific loan agreement with a fixed maturity of about 2-5 years. Typically this would be provided to fund working capital for a new project at initial stages upto the time that the operations of the business generate enough cash to start paying back the loan. Repayment can be in equal monthly, quarterly or annual installments or installments that are back loaded or a single payment at the end of the period.

Unsecured vs. Secured Borrowing

Unsecured borrowings are those loans that are advanced on the strength of the borrower's financial statement and expectation of future cash flows. In case of a default the lender does not have a claim on any specific set of assets. Unsecured loans are typically granted to firms with good financial standing.

Secured loans are those loans, where as part of a loan agreement, the lender has claim on a specific set of assets in cash of default by borrower. Secured loans could either be collateralized loan or asset based loan.

In the case of a collateralized loan the bank still looks at the credit from a financial statement perspective, In case the borrower presents too much of a risk, then a second exist route is available to the lender by way of collateral security. Assets are the most widely used as collateral security.

Funding Receivables

Companies get their receivables funded either by pledging their receivable and taking a loan against the same by factoring receivables.

Pledging Accounts Receivables

Accounts receivables are the most commonly used form of collateral for secure short term borrowing. From the lender's view point this is the most acceptable form of collateral. The company has to repay the loan irrespective of whether the receivables have been realized or not. In short the loan is with recourse to the borrower and default risk of the customer is borne by the borrower.

Inventory Loans

Like receivable inventory is also commonly used to provide collateral for secured short term borrowings. The firm may hold different types of inventory, namely raw material, work-in progress and finished goods. Normally lenders would prefer to lend only against raw material of finished goods. They may not consider VIP easy saleable and hence not liquid. The terms of lending against inventory would depend on physical characteristics, identifiably, liquidity and material ability of inventory. In case of perishable items like food, the inventory funding may be restricted to ageing of inventory in days, whereas in engineering goods it may be several months.

Bill Discounting

Bills of Exchange may be discounted by the firm from a bank to meet urgent needs.

Packing Credit (P.O. Financing)

Manufacturer/Distributor successfully markets product and receives order, but the orders are either too large or there are too many to accommodate. Better cash flow if required to increase output, but buyers won't make payments until 30-60 days after receiving their goods. Purchase Order Financing (P.O. Financing) is a method of funding the expenses prior to shipment by paying for cost of goods directly to the suppliers on behalf of the manufacturer/distributor. Manufacturers and Domestic Distributors need P.O. Financing. During times of growth and expansion, cash flow becomes insufficient. Suppliers want you to pay COD and Buyers want to pay you Net 30-60. This means there is no income cash during manufacturing, while the goods are in transit, and until the invoices have matured (up to 90 days)

Three steps are to be completed for P.O. Financing

- 1) Get a purchase order form a strong customer.
- 2) Find a reliable supplier
- 3) Make an order to the supplier
- 4)

17.7 ROLE OF MONEY MARKET

The rapid evolution of deregulated money markets has made available to treasury managers several new instruments for short term financing and investment. Financial managers are tasked with job of managing individual working capital accounts (receivables, inventory, payables etc.) to balance the overall liquidity position of the firm. Financial markets provide several instruments that allow companies to manage their liquidity requirements on an ongoing basis. Financing markets refer to institutional arrangements for dealings in financing assets and credit instruments of different types such as currency, cheques, bank deposits, bills bonds etc.

The main functions of financial markets are:

- 1) To facilitate creation and allocation of credit and liquidity
- 2) To serve as intermediaries in the process of mobilization of savings in the economy
- 3) To provide the financial convenience to the people
- 4) To assist the process of economic development through a more balanced regional and sectoral distribution of funds

Financial markets are the credit markets. They cater to the various credit needs of the individuals, firms and institutions. Credit is generally required and supplied on short term or long term basis.

The financial markets are largely divided into two categories:

- 1) Money Market
- 2) Capital Market

Money market deals with market for short term funds whereas capital market deals with market for long term funds. For the purposes of this reading we will restrict our selves to the money market.

Money Market

The term money market refers to institutional arrangements facilitating borrowing and lending of short term funds. In the money market, fund may be borrowed for varying periods in time say, a day, a week, 3 to 6 months etc. and against different types of instruments such as bills of exchange, short term securities, bankers' acceptances, etc., called near money". Money market is the collective name given to the various firms and institutions that deal in the various grades of near money. "They are thus close substitutes for money usually with maturities of less than a year".

The basis function of the money market is to provide facilities of adjustment of liquidate positions of commercial banks, business corporations, non-banking financial institutions and other investors. A flourishing money market is an effective catalyst that promotes economic growth. Moreover, the money market constitutes an efficient mechanism for credit control.

Characteristics of the Money Market

The purpose of money borrowed differs from person to person, institution to institution, and transaction to transaction. And the different purposes for which money is borrowed result in the creation of different kinds of financial assets, having different maturities yields, default risks, and other features.

In the money market, loans have an original maturity of one year or less. Money market loans used to help corporations and government pay the wages and salaries of their workers make repairs, purchase inventories, pay dividends and taxes and satisfy other short-term working-capital needs. In this respect the money market stands in sharp contrast to the capital market. The capital market deals in long-term credit that has over a year to maturity and is usually used to finance capital investment projects whereas the money market deals with the market for short-term credit.

The broad objectives of the money market are threefold:

- 1) It should provide an equilibrating mechanism for evening out short-term surpluses and deficits.
- 2) The money market should provide a focal point for central bank intervention for influencing liquidity in the economy.
- 3) It should provide reasonable access to users of short-term money to meet their requirement at a realistic price.

Risk faced by Investors in Financial Markets

| | |
|-----------------------|--|
| Market Risk | The risk that the market price (value) of an asset will fall, resulting in a capital or interest payments on a loan or security. |
| Default risk | The probability that a borrower will fail to meet one or more promised principal or interest payments on a loan or security. |
| Inflation Risk | The risk that increases in the general price level that reduces the purchasing power of investor earnings from a loan or security investment. |
| Currency risk | The risk that adverse movements in the price of one national currency vis-avis another that reduces the net rate of return from a foreign investment. Sometimes called exchange-rate risk. |
| Political risk | The probability that changes in government laws or regulations will reduce the investor's return from an investment. |

Money Market Instruments

The money market is composed of several financial agencies that deal with different types of short term credit.

Money markets perform the crucial role of providing a conduit for equilibrating short-term demand for the supply of funds, thereby facilitating the conduct of monetary policy. The money market instruments mainly comprise:

- i) Call money
- ii) Certificates
- iii) Treasury bills
- iv) Other short-term government securities transactions, such as repos
- v) Bankers acceptances/commercial bills
- vi) Commercial paper, and
- vii) Inter-corporate funds

17.8 WORKING CAPITAL CONTROL AND BANKING POLICY

The overall financial structure of a firm influences liquidity, as do several other aspects impacting the operations of a firm, such as specific industry trends, product line management's efficiency in running its operations etc.

There is a hedge that occurs with a relationship between current assets and short term liabilities. The overall relationship between current assets (which produce cash inflows and) and current liabilities (that require cash outflows) will determine the size of gross hedge. If current assets can

provide much more cash than required for meeting current liabilities, then chance of cash stock out is lessened. The overall relationship between the firm's potentially available cash and its potential cash needs determines the firm's aggregate liquidity position.

Ratio analysis is an important tool used by companies to monitor the interrelationship between various components of the financial statements and ensure that they are in balance.

Key Working Capital Ratios

1) Liquidity Ratios

Liquidity and short term solvency ratios are used to judge the firm's ability to meet current obligations such as accounts payables and current installments on long term debt. Liquidity ratios help us determine the extent to which assets quickly convertible to cash exceed immediate creditor payments. When an organization is unable to meet its financial obligations, it said to be insolvent. Because insolvency leads to bankruptcy even to liquidation of the business, investors and creditors closely scrutinize solvency ratios. The current and quick (acid test) ratios are the most commonly used ratios in this category.

- a) **Current Ratio:** The current ratio is calculated by dividing the current assets by the current liabilities and is used to measure a firm's liquidity and the firm's short term solvency.

$$\text{Current ratio} = \frac{\text{Total Current Assets}}{\text{Total Current Liabilities}}$$

This ratio is an indicator of the firm's ability to meet its short term financial obligations (current liabilities). Higher the ratio, the better the ability to pay off its current payables.

A high current ratio could indicate funds tied up in unproductive assets adversely impacting profitability.

However, an unusually light current ratio should indicate two cautionary points requiring further investigation:

- a) Are too much funds tied up in current assets because of inefficient operations?
- b) Are the current assets reflected on the balance sheet realizable current assets?

If the debtor's level is very high, one must look at ageing and ascertain whether the entire amount is realizable or not, similarly, in case of high levels of inventory, one must look at ageing and ascertain whether the inventory is obsolete or has a realizable value.

The management must therefore make appropriate trade offs between profitability and liquidity.

- b) Quick Ratio: The quick ratio is another measure of a firm's ability to meet its current obligations. It is calculated by dividing the total current assets less inventories by the total current liabilities less bank overdraft.

$$\text{Quick Ratio} = \frac{\text{Total Current assets-Inventories}}{\text{Total Current Liabilities-Bank Overdraft}}$$

The rationale for this ratio is that inventories are considered least liquid of all current assets and bank overdraft is seldom withdrawn at short notice. Therefore this ratio really measures the ability of the firm to meet those short term obligations that are most likely to be called upon for payment with those assets that are likely to be most quickly realizable in the very short term.

2) Activity Ratio

Activity Ratios are operating ratios used extensively by the management to measure the efficiency of its operations. These are also known as efficiency or turnover ratios and measure the intensity with which the firm uses its assets to generate sales. If the investment in various assets to generate sales is small, it could mean that the operations are being run very efficiently with minimal investments. If it is too small, it may be leading to poor customer service, or even loss of sales due to non-availability of product when required; if it too large, it means that funds are locked up due to inefficient operations and need to be relieved for more productive purposes through tightening of operations and relieving some of the locked up investments.

- a) Receivable Turnover Ratio = Receivable Turnover Ratio measures the number of items on an average that receivables have been turned over in a year. This is computed by dividing net sales by the average receivable outstanding during the year.

$$\text{Receivable Turnover Ratio} = \frac{\text{Total Net Sales}}{\text{Average Inventory}}$$

The Days Sales Outstanding (DOS) represents the average collection period expressed in number of days and is calculated by dividing the number of days by the receivables turnover ratio.

- b) **Inventory Turnover Ratio:** Inventory Turnover measures the number of times the average inventory has been sold during the year and is calculated by dividing the cost of goods sold by the average inventory balance.

$$\text{Inventory turnover ratio} = \frac{\text{Cost of goods sold}}{\text{Average Inventory}}$$

The amount of time required to sell the average inventory can be determined by dividing the inventory turnover ratio into number of days in the year (365 days).

$$\text{Average inventory days} = \frac{\text{Number of days in the year}}{\text{Inventory Turnover Ratio}}$$

The greater the number of times the inventory turns over, the more efficiently, the capital is being used. The smaller the inventory in relation to annual sales, greater is the sales activity that the inventory is able to support. The higher the ratio, lower are the funds deployed to achieve the given level of sales, but also means that orders for purchases of inventory have to be placed very often. However, purchasing decisions will be based on an inventory policy that will define the trade off efficient purchasing based on EOQ and the desired inventory turnover ratio.

In order to make good use of these activity ratios, it is first important to understand the specifics of how the particular measure operates and the relevant industry ratio. It is also important to establish a goal that the firm wants to reach in terms improvement.

Because of some of the limitations and contradictions in some of the ratios discussed above, there are some improved measures of liquidity.

3) Other Measures -

- a) Cash Conversion Cycle
- b) Comprehensive Liquidity Index
- c) Net Liquid Balance

a) Cash Conversion cycle

This measure is directly based on the concept of working capital cycle discussed earlier. In this cycle the firm purchases labour and materials, uses them to convert to inventory, sells inventory to generate receivables which are in turn sold to produce cash. In this cycle there are two types of current assets, namely inventory and accounts receivable generated at two different points in time that must be financed by one set of liabilities that provides financing, accounts payable and wages. The Cash Conversion Cycle is the net time interval between the expenditure of cash in paying the liabilities that provides financing, accounts payable and wages. The Cash Conversion Cycle is the net time interval between the expenditure of cash in paying the liabilities and the receipt of cash from the collection of receivables.

Cash Conversion Cycle = Average Collection Period + Inventory Conversion Period - Average Credit Period (with creditors)

The sum of Average Collections Period and Inventory Conversion period is known as the Operating Cycle.

The lower the cash conversion cycle, the more liquid the firm is said to be. However, this measure completely ignores cash which is a very important measure of liquidity.

c) Comprehensive Liquidity Index

This is a liquidity weighted version of the current ratio. This measure tries to overcome the limitations of the current ratio by weighting each asset by their nearness to cash.

$$\text{Composite Liquidity Index} = \frac{\text{Liquidity Adjusted Current Assets}}{\text{Liquidity Adjusted Liabilities}}$$
$$= \frac{(\text{Total Receivables} (1 - 1/\text{Debtors Turnover}) + \text{Total Inventory} (1 - 1/\text{Debtors turnover}) - (\text{1/Inventory Turnover}) / (\text{total Purchases} (1 - 1/\text{Creditors turnover}) + \text{Wages Payable} (1 - 1/\text{Turnover of Wages payable}))}{}$$

The above gives the current ratio adjusted for liquidity

d) Net Liquid Balance

The Net Liquid Balance measures the firm's balance of cash and marketable securities. This balance reflects the true availability of cash for unanticipated cash requirements. Net liquid balance does not consider receivables and inventory as contributors to liquidity, rather it assumes views them as items requiring to be financed. Accounts payable and accruals are not treated as maturing obligations but as items that would be permanently be available partially fund the assets.

$$\text{Net Liquid Balance} = (\text{Cash} + \text{Marketable Securities} - \text{Notes Payable}) / \text{Total Assets}$$

These measures, though seeking to improve on the earlier ratios are by 110 means complete. They still do not measure the impact of off balance sheet relationships and the treatment of long term debt. e.g., if a firm has some valuable fixed assets that can be liquidated quickly in case of an emergency? Also in the case of long term debt ft there is any portion of long term debt which is payable in the short run, it should be considered as part of current liabilities.

Once a firm has decided on its level of liquidity to be maintained, it must have a structure of current debt that provides the desired liquidity.

Other working capital measures include the following:

- Bad debts expressed as a percentage of sales
- Cost of bank loans, lines of credit, invoice discounting etc.
- Debtor concentration - degree of dependency on a limited number of customers.

Once ratios have been established for your business, it is important to track them over time and to compare their ratios for other comparable businesses or industry sectors.

17.9 LET US SUM UP

Net working capital is the difference between current assets and current liability. Gross working Capital is the total of all current assets. Working capital requirements are influenced by factors like nature and type of businesses, length of operating cycle, size of business working capital policies and efficiency of operations. A firm may follow conservative approach, aggressive approach or moderate approach to determine working capital policy. There are two ways of financing of working capital- debt financing and equity financing. Equity Financing provide margin on working capital. Financial markets provide several instruments that allow firms to manage their liquidity. Money market deals with short term funds. Ratio analysis is an important tool to monitor the inter-relationship between various components of financial statements and ensure that they are in balance. These ratios are liquidity ratios: current ratio, quick ratio, activity ratios: receivables turnover ratio and inventory turnover ratio. There are other measures also namely cash conversion cycle, comprehensive liquidity index and net liquidity balance.

17.10 KEY WORDS

| | |
|------------------------------|---|
| Gross Working Capital | : The total of current assets |
| Line of Credit | : An agreement between the bank and the borrower where in the bank commits a certain line of credit permitting the company to borrow upto that limit during a specified period. |
| Net Working Capital | : The difference between current assets and current liabilities. |
| Operating Cycle | : The time period between the acquisition of inventory and the collection of cash from receivables. |
| Money Market | : Market deals with short term funds. |

17.11 TERMINAL QUESTIONS/EXERCISES

- 1) Explain the factors that influence working capital needs.
- 2) Explain the different approaches of working capital policy. What are their consequences?
- 3) How the risk and return trade off is maintained by working capital policy?
- 4) How working capital requirements can be ascertained?
- 5) Explain the different formal and informal credit arrangements?

- 6) Define 'Money Market'. Explain its characteristics.
- 7) Write short notes on:
 - a) Working Capital Ratios
 - b) T bills and Repo



ignou
THE PEOPLE'S
UNIVERSITY

UNIT 18 TECHNIQUES OF FINANCIAL ANALYSIS

Structure

- 18.0 Objectives
- 18.1 Introduction
- 18.2 Techniques of Financial Analysis
- 18.3 Common Size Statements
- 18.4 Comparative Statements
- 18.5 Trend Analysis
- 18.6 Ratio Analysis
 - 18.6.1 Liquidity Analysis Ratios
 - 18.6.2 Profitability Analysis Ratios
 - 18.6.3 Profitability in Relation to Capital Employed (Investment)
 - 18.6.4 Activity Analysis Ratios
 - 18.6.5 Long-Term Solvency Ratios
 - 18.6.6 Coverage Ratios
- 18.7 DuPont Model of Financial Analysis
- 18.8 Uses of Ratio Analysis
- 18.9 Limitations of Ratio Analysis
- 18.10 Let Us Sum Up
- 18.11 Key Words
- 18.12 Terminal Questions
- 18.13 Further Readings

18.0 OBJECTIVES

The objectives of this unit are to:

- ✍ explain the need for analysing financial statements;
- ✍ know different methods of analysing the financial statements;
- ✍ understand how investors and others examine the performance of the company through ratio analysis;
- ✍ explain a few advanced financial analysis models with the help of ratio analysis; and
- ✍ caution the users of financial statements for some of the limitations of financial statement analysis.

18.1 INTRODUCTION

In the previous units you would have been familiarised by many terms like what is a firm, an entity, profit, loss, balance sheet, profit and loss account etc. You would have seen that any business unit contains three major activities – namely; operating, financing, and investing. All the three activities transactions are contained in three major financial statements namely, the Balance Sheet, the Profit and Loss Account, and the Cash Flow Statement. While the Balance Sheet reveals the statement of wealth at any given point of time, Profit and Loss Account reveals the income earned and expenses incurred during the financial year. Cash Flow Statement reflects the cash inflow or outflow of the above three major activities mentioned.

Most small investors like you invest in shares of varied companies with minimum knowledge on the company itself. However, in most cases it so happens that the small investors who do not understand much about the financial reports take the help of the mutual funds. You would be reading more about mutual funds in some other course. To familiarise you with the term, mutual funds are trusts or entities managed by investment trusts and registered under the Trust Act. They pool the money of the small investor and do the investment in shares and debentures or bonds on behalf of them. Most often than not, the mutual funds give better returns to the individual and small investors in comparison to the returns they would have earned had they invested by themselves. This is because the mutual funds are specialists in investing and gain significant experience and expertise in investing as against the naive investors. The main reason being investors often do not find the time to analyse and evaluate the financial credence of the company. This requires a basic understanding of the financial statements disclosed by the company. Hence, a layman who wishes to invest in companies or prefer to have any sort of dealings with the company has to perform an analysis of the financial statements. This holds good for any stakeholder of the company, be it the employee, or the shareholder, or the supplier, the Government, the Tax authorities, the bankers and lenders etc. The lending institutions need to analyse the financial statements to make sure the company would be able to repay the loans. Similarly, the shareholder would like to analyse the financial statements to find out the prospects of the company and whether it would pay sufficient returns for the money invested. The Government would also be interested in analyzing the financial statements of the company to check whether the company is performing well like the other companies in the same industry or whether it is functioning as a sick company. Hence the details taken out of the financial statement analysis differs based on who analyse the financial statements. Given the various objective of financial statement analysis lets move on to find out how exactly financial statement analysis is performed.

Check Your Progress A

- 1) Who and why would any one perform financial statement analysis?
.....
.....
.....
- 2) Being an employee of your company, would you be interested in the analysis of the financial statements of your company? If yes, why and what would be analysing?
.....
.....
.....

18.2 TECHNIQUES OF FINANCIAL ANALYSIS

Investors buy shares based on all kinds of information about a company. For example, it may be that a particular firm has invented a new drug, or is a takeover candidate, or has started exports to a boom region of the world or has discovered new seams of gold. Any of these factors may be sufficient to give the shares a big short-term boost.

But, despite all this, it is important to realise that profits are the key to a company's long-term performance. Without profits a company cannot invest in growth, cannot repay loans and cannot pay dividends. Eventually, its very survival may be in doubt. And so most analysis is directed towards understanding the company's profits.

Financial analysis is done to try and predict the future performance of a company. This of course has some limits. This is because your analysis will essentially be of historical figures; yet you are trying to forecast the future. However, there are experts who use technical analysis to predict the future stock prices using historical data, where mostly the reality is not predicted. Also, you would have noticed that analysis by some of the world's top economists was unable to predict the recent Asian economic implosion. So you should be aware of the fact that there are some pretty important limitations to what you can expect from financial analysis.

Apart from this, it's highly important to check whether the company is operating efficiently. In the sense that it does not suffice by investing in the growth. It is equally important that the company operates efficiently in comparison to its competitors.

It is also necessary to analyse the debt levels and how these may affect the company's performance. When interest rates are low it can make good strategic sense for a company to borrow heavily in order to invest for growth. But once interest rates start heading up again it may be that the company's profits come under threat, and it is important to gauge its ability to repay its loans.

So mostly financial analysis would be directed towards three major areas— Profitability, Productivity and Risk (determined by leverage or debt equity mix).

In order to perform the analysis, we need to do some sort of comparison. Generally the comparison done could be of the following types : 1) Comparing the performance of the interested company with the competitors, 2) Comparison with the benchmark (either the competitor or some other benchmark company, 3) Comparison with the industry averages, and 4) Comparing the performance of the company over the years. Second and third type of comparison is called *cross section analysis* and fourth type of comparison is called *time series analysis*.

Hence this sort of analysis requires some organized techniques such as:

- 1) Common size statement analysis
- 2) Ratio analysis
- 3) Comparative Statement Analysis (Cross Section analysis)
- 4) Trend Analysis (Time Series analysis)
- 5) Du Pont Analysis (Structured Ratio Analysis).

All the above are widely used techniques by experts across the world. You will be learning the above techniques in detail in the coming sections.

Check Your Progress B

- 1) List out the different techniques of performing financial analysis?
.....
.....
.....
.....
- 2) List out the major components that you would concentrate while analysing the financial statements.
.....
.....
.....
.....
- 3) Suppose if you are interested in investing in any of the software company. How would you decide which company to invest in the software industry. List some of the factors that you would analyse and the procedure of analysis.
.....
.....
.....
.....

18.3 COMMON SIZE STATEMENTS

When comparing your company with industry figures, make sure that the financial data for each company reflect comparable price levels, and that it was developed using comparable accounting methods, classification procedures, and valuation bases.

Such comparisons should be limited to companies engaged in similar business activities. When the financial policies of two companies differ, these differences should be recognized in the evaluation of comparative reports. For example, one company leases its properties while the other purchases such items; one company finances its operations using long-term borrowing while the other relies primarily on funds supplied by shareholders and by ploughing back the earnings. Financial statements for two companies under these circumstances are not wholly comparable.

Hence, you require some comparable basis to overcome this problem. Hence we use common size statement. Common Size Statement represents a financial statement that displays all items as a percentage of a common base figure. Such a statement may be useful for noting changes in the relative size of the various elements.

In other words, it is a statement in which all items are expressed as a percentage of a Base figure, which is used for analyzing trends and changing relationship among Financial statement items. For example, all items in each year's income statement could be presented as a percentage of Net sales. This technique is quite useful when you are comparing your business to other businesses or to averages from an entire industry, because differences in size are neutralized by reducing all figures to common-size ratios. Industry statistics are frequently published in common-size form.

When performing a ratio analysis (you would be learning in detail about this in the next section) of financial statements, it is often helpful to adjust the figures to common-size numbers. To do this, one has to change each line item on a statement to a percentage of the total. For example, on a balance sheet, each figure is shown as a percentage of total assets, and on an income statement, each item is expressed as a percentage of sales.

Hypothetical Common-Size Income Statement

| | 2003 | 2002 | 2001 |
|---------------|------|------|------|
| Sales | 100% | 100% | 100% |
| Cost of Sales | 65% | 68% | 70% |
| Gross Profit | 35% | 32% | 30% |
| Expenses | 27% | 27% | 26% |
| Taxes | 2% | 1% | 1% |
| Profit | 6% | 4% | 3% |

The following gives the common size financial statements of ABC Industries Ltd.

Common Size balance Sheet Ratios of ABC Industries Ltd.

| Year | 2003-04 | 2002-03 | 2001-02 | 2000-01 | 1999-2000 |
|--|---------------|---------------|---------------|---------------|---------------|
| SOURCES OF FUNDS : | | | | | |
| Share Capital | 2.78 | 2.27 | 4.23 | 5.28 | 5.15 |
| Reserves and Surplus | 57.80 | 56.99 | 55.07 | 49.55 | 48.51 |
| Total Shareholders Funds | 60.59 | 59.26 | 59.30 | 54.83 | 53.65 |
| Secured Loans | 23.49 | 30.54 | 16.34 | 23.48 | 23.76 |
| Unsecured Loans | 15.92 | 10.20 | 24.37 | 21.69 | 22.59 |
| Total Debt | 39.41 | 40.74 | 40.70 | 45.17 | 46.35 |
| Total Liabilities | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| APPLICATION OF FUNDS : | | | | | |
| Gross Block | 100.84 | 100.57 | 101.83 | 95.40 | 80.90 |
| Less: Accum. Depreciation | 36.82 | 32.45 | 47.55 | 36.13 | 29.03 |
| Net Block | 64.01 | 68.12 | 54.27 | 59.27 | 51.87 |
| Capital Work in Progress | 3.98 | 3.30 | 2.06 | 1.30 | 14.91 |
| Investments | 13.41 | 8.29 | 27.01 | 23.79 | 18.63 |
| CURRENT ASSETS, LOANS AND ADVANCES: | | | | | |
| Inventories | 14.98 | 10.71 | 9.24 | 7.15 | 6.11 |
| Sundry Debtors | 5.94 | 5.86 | 4.55 | 3.30 | 1.98 |
| Cash and Bank Balance | 0.29 | 3.79 | 0.40 | 4.24 | 21.24 |
| Loans and Advances | 25.07 | 22.00 | 22.44 | 16.10 | 7.38 |
| Less: Current Liab. and Prov. | | | | | |
| Current Liabilities | 24.83 | 19.60 | 16.51 | 12.61 | 19.77 |
| Provisions | 2.94 | 2.61 | 3.47 | 2.55 | 2.36 |
| Net Current Assets | 18.50 | 20.16 | 16.66 | 15.64 | 14.59 |
| Miscellaneous Expenses not w/o | 0.09 | 0.14 | 0.00 | 0.00 | 0.00 |
| Total Assets | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

Note : All items under the 'Use of Funds' side have been presented as a percentage of Total Assets and all items under the 'Sources of Funds' are presented as a percentage of Total liabilities.

Common Size Ratios of Income Statement of ABC Industries Ltd.

| Year | 2003-04 | 2002-03 | 2001-02 | 2000-01 | 1999-2000 |
|--|---------------|---------------|---------------|---------------|---------------|
| Income : | | | | | |
| Sales Turnover | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Other Income | 2.37 | 2.64 | 4.27 | 6.16 | 5.92 |
| Stock Adjustments | 4.86 | ----2.00 | 1.38 | 2.17 | ----1.43 |
| Total Income | 107.23 | 100.64 | 105.65 | 108.33 | 104.49 |
| Expenditure : | | | | | |
| Raw Materials | 68.42 | 62.08 | 53.71 | 44.98 | 32.01 |
| Excise Duty | 8.77 | 7.23 | 11.21 | 15.47 | 18.16 |
| Power and Fuel Cost | 1.44 | 1.63 | 4.29 | 2.77 | 2.54 |
| Other Manufacturing Expenses | 2.97 | 3.22 | 4.54 | 6.85 | 9.73 |
| Employee Cost | 1.23 | 1.18 | 1.80 | 2.26 | 3.32 |
| Selling and Administration Expenses | 4.99 | 4.19 | 5.10 | 4.72 | 5.90 |
| Miscellaneous Expenses | 0.72 | 1.15 | 0.86 | 1.34 | 1.70 |
| Less: Preoperative Expenditure Capitalised | 0.01 | 0.00 | 0.01 | 0.02 | 0.11 |
| Profit before Interest, Depreciation and Tax | 18.70 | 19.98 | 24.16 | 29.95 | 31.23 |
| Interest and Financial Charges | 3.10 | 4.02 | 5.28 | 6.36 | 6.86 |
| Profit before Depreciation and Tax | 15.59 | 15.96 | 18.87 | 23.59 | 24.37 |
| Depreciation | 5.66 | 6.20 | 6.80 | 8.07 | 8.05 |
| Profit Before Tax | 9.93 | 9.75 | 12.08 | 15.52 | 16.32 |
| Tax | 1.74 | 2.61 | 0.59 | 0.36 | 0.28 |
| Profit After Tax | 8.19 | 7.14 | 11.49 | 15.17 | 16.04 |
| Adjustment below Net Profit | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 |
| P & L Balance brought forward | 5.44 | 4.76 | 7.56 | 7.15 | 9.86 |
| Appropriations | 6.96 | 5.91 | 9.66 | 11.34 | 15.24 |
| P & L Bal. carried down | 6.67 | 6.00 | 9.38 | 10.98 | 10.66 |
| Equity Dividend | 1.39 | 1.46 | 1.95 | 2.43 | 3.30 |
| Preference Dividend | 0.04 | 0.00 | 0.02 | 0.22 | 0.22 |
| Corporate Dividend Tax | 0.18 | 0.00 | 0.20 | 0.29 | 0.38 |
| Equity Dividend (%) | 0.10 | 0.10 | 0.18 | 0.25 | 0.35 |
| Earning Per Share (Rs.) | 0.06 | 0.07 | 0.11 | 0.14 | 0.17 |
| Book Value | 0.40 | 0.52 | 0.49 | 0.65 | 0.94 |
| Extraordinary Items | 0.01 | 0.70 | 0.05 | 0.32 | 0.06 |

Vertical analysis is the computation of percentages, ratios, turnovers, and other measures of financial position and operating results for one fiscal period. When these figures are compared with those from other periods, it becomes horizontal analysis. For instance if you would have done the above conversion into percentages for ABC industries for only year 2003 then it would have been Vertical analysis. But what has been presented to you is the Horizontal Analysis of the common size financial statements.

Activity 3

- 1) Visit any company’s website and download the annual report. Prepare common size statement for two year period and write down your understanding.

.....
.....
.....

- 2) What do you think is the purpose for the Common Size Financial Statement?

.....
.....
.....

- 3) Take any software firm and a manufacturing firm and perform common size financial statement. Examine the difference and explain why they are different.

.....
.....
.....

18.4 COMPARATIVE STATEMENTS

When you first look at a company’s current financial figures it can be quite overwhelming and, more often than not, a little confusing. But, if you were to compare that data to that of the business’s historical performance, it becomes significantly more meaningful. Hence it would make more sense to compare the company’s current financial numbers with monthly, quarterly, or annual data from previous fiscal years. In this process you should notice some trends that will help you map out the future of your business.

This is done the same way common size financial statement is done but a little differently. A hypothetical example would help you understand the importance of the same. The following example gives the comparative financial statements of a hypothetical XYZ company. Despite calculating the percentage for each of the year that is the vertical analysis, the horizontal analysis has also been performed in the sense that the conversion is done over the years. This facilitates in comparing the performance over the year but also with the industry average. The industry average has also been given for the XYZ Company.

XYZ Company
Comparative Income Statement
for Fiscal Years Ended December

Statements
of Analysis
(Rs. in Thousands)

| | Audited 1999 | | Audited 2000 | | Audited 2001 | | Audited 2002 | | Audited 2003 | | Industry Average |
|------------------------------------|-----------------|-------|-----------------|-------|-----------------|-------|-----------------|-------|-----------------|-------|---------------------|
| | Rs. | % | Rs. | % | Rs. | % | Rs. | % | Rs. | % | % |
| Sales | 33,013.0 | 100.0 | 33,395.0 | 100.0 | 37,021.0 | 100.0 | 40,733.0 | 100.0 | 43,412.0 | 100.0 | 100.0 |
| Cost of Sales | 19,305.0 | 58.5 | 19,891.0 | 59.6 | 21,836.0 | 59.0 | 23,779.0 | 58.4 | 27,142.0 | 62.5 | 65.7 |
| Gross Profit | 13,708.0 | 41.5 | 13,504.0 | 40.4 | 15,185.0 | 41.0 | 16,954.0 | 41.6 | 16,270.0 | 37.5 | 34.3 |
| Operating Expenses | 12,875.0 | 39.0 | 12,516.0 | 37.5 | 13,728.0 | 37.1 | 15,657.0 | 38.4 | 15,862.0 | 36.5 | |
| Operating Profit | 833.0 | 2.5 | | 2.9 | 1,457.0 | 3.9 | 1,297.0 | 3.2 | 408.0 | 1.0 | |
| Interest Expense | 726.0 | 2.2 | 647.0 | 1.9 | 522.0 | 1.4 | 526.0 | 1.3 | 566.0 | 1.3 | |
| Other Income | 83.0 | 0.3 | 373.0 | 1.1 | 33.0 | 0.1 | 30.0 | 0.1 | 189.0 | 0.4 | |
| Pre-Tax Profit | 190.0 | 0.6 | 714.0 | 2.1 | 968.0 | 2.6 | 801.0 | 2.0 | 31.0 | 0.1 | |
| Taxes | 151.0 | 0.5 | 226.0 | 0.7 | 27.0 | 0.1 | 21.0 | 0.1 | 2.0 | 0.0 | |
| Net Profit | 39.0 | 0.1 | | 1.4 | 941.0 | 2.5 | 780.0 | 1.9 | 29.0 | 0.1 | 1.8 |
| Depreciation | 769.0 | 2.3 | | 2.1 | 612.0 | 1.7 | 540.0 | 1.3 | 520.0 | 1.2 | |
| Sales to Assets | 2.4 | | 3.0 | | 3.2 | | 3.3 | | 3.2 | | |
| % Return on Assets (Before Tax) | 1.4 | | 6.5 | | 8.3 | | 6.5 | | 0.2 | | 3.4 |
| % Return on Equity (Before Tax) | 12.1 | | 38.5 | | 39.8 | | 24.7 | | 1.2 | | 13.7 |
| Pre-Tax Interest Cover | 1.3 | | 2.1 | | 2.9 | | 2.5 | | 1.1 | | |

XYZ Company
Comparative Balance Sheet
for Fiscal Years Ended December.....

(Rs. in Thousands)

| | Audited 1999 | | Audited 2000 | | Audited 2001 | | Audited 2002 | | Audited 2003 | | Industry Average |
|-------------------------------------|-----------------|--------------|-----------------|--------------|-----------------|--------------|-----------------|-------------|-----------------|--------------|---------------------|
| | Rs. | % | Rs. | % | Rs. | % | Rs. | % | Rs. | % | % |
| Assets | | | | | | | | | | | |
| Cash | 733.0 | 6.4 | 600.0 | 6.6 | 494.0 | 5.1 | 180.0 | 1.7 | 232.0 | 2.0 | 6.8 |
| Other Current | 727.0 | 6.3 | 499.0 | 5.5 | 712.0 | 7.3 | 724.0 | 7.0 | 888.0 | 7.8 | 2.5 |
| Accounts Receivable | 2,789.0 | 24.2 | 2,186.0 | 24.1 | 2,137.0 | 22.0 | 2,155.0 | 20.9 | 2,220.0 | 19.4 | 17.2 |
| Inventories | 4,949.0 | 42.9 | 4,027.0 | 44.4 | 4,778.0 | 49.1 | 5,795.0 | 56.2 | 5,909.0 | 51.7 | 40.3 |
| Total Current Assets | 9,198.0 | 79.8 | 7,312.0 | 80.6 | 8,121.0 | 83.5 | 8,854.0 | 85.8 | 9,249.0 | 80.9 | 66.8 |
| Net Fixed Assets | 1,875.0 | 16.3 | 1,401.0 | 15.4 | 1,319.0 | 13.6 | 1,280.0 | 12.4 | 2,070.0 | 18.1 | 25.9 |
| Other Assets | 0.0 | 0.0 | 0.0 | 0.0 | 97.0 | 1.0 | 74.0 | 0.7 | 0.0 | 0.0 | 7.0 |
| Notes Receivable | 90.0 | 0.8 | 82.0 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 |
| Intangibles | 363.0 | 3.1 | 278.0 | 3.1 | 193.0 | 2.0 | 107.0 | 1.0 | 116.0 | 1.0 | |
| Total Assets | 11,526.0 | 100.0 | 9,073.0 | 100.1 | 9,730.0 | 100.1 | 10,315.0 | 99.8 | 11,435.0 | 99.9 | 100.0 |
| Total Liabilities and Equity | | | | | | | | | | | |
| Other Current Liabilities | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Notes Payable | 2,500.0 | 21.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.4 |
| Current Maturities | 999.0 | 8.7 | 294.0 | 3.2 | 304.0 | 3.1 | 265.0 | 2.6 | 99.0 | 0.9 | 2.0 |
| Accounts Payable | 1,313.0 | 11.4 | 992.0 | 10.9 | 1,182.0 | 12.1 | 1,751.0 | 17.0 | 922.0 | 8.1 | 15.8 |
| Accrued Expenses | 1,300.0 | 11.3 | 1,179.0 | 13.0 | 1,221.0 | 12.5 | 1,158.0 | 11.2 | 1,646.0 | 14.4 | |
| Taxes Payable | 410.0 | 3.6 | 594.0 | 6.5 | 377.0 | 3.9 | 507.0 | 4.9 | 0.0 | 0.0 | |
| Notes Payable-Officer | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Current Liabilities | 6,522.0 | 56.7 | 3,059.0 | 33.6 | 3,084.0 | 31.6 | 3,681.0 | 35.7 | 2,667.0 | 23.4 | 35.5 |
| Long-Term Debt | 3,174.0 | 27.5 | 3,902.0 | 43.0 | 4,082.0 | 42.0 | 3,392.0 | 32.9 | 6,261.0 | 54.8 | 20.2 |
| Subord. Long-Term Debt | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Deferred Taxes | 257.0 | 2.2 | 257.0 | 2.8 | 129.0 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Liabilities | 9,953.0 | 86.4 | 7,218.0 | 79.4 | 7,295.0 | 74.9 | 7,073.0 | 68.6 | 8,928.0 | 78.2 | 55.7 |
| Equity | 1,573.0 | 13.6 | 1,855.0 | 20.4 | 2,435.0 | 25.0 | 3,242.0 | 31.4 | 2,507.0 | 21.9 | 39.5 |
| Total Liab. & Equity | 11,526.0 | 100.0 | 9,073.0 | 99.8 | 9,730.0 | 99.9 | 10,315.0 | 99.9 | 11,435.0 | 100.0 | 100.0 |
| Working Capital | 2,676.0 | 23.2 | 4,253.0 | 46.9 | 5,037.0 | 51.8 | 5,173.0 | 50.2 | 6,582.0 | 57.6 | |
| Retained Earnings | 39.0 | 0.3 | 488.0 | 39.0 | 941.0 | 9.7 | 780.0 | 7.6 | (764.0) | (6.7) | |
| Current Ratio | 1.4 | | 2.4 | | 2.6 | | 2.4 | | 3.5 | | 2.0 |
| Quick Ratio | 0.7 | | 1.1 | | 1.1 | | 0.8 | | 1.3 | | 0.7 |
| Debt to Worth | 6.3 | | 3.9 | | 3.0 | | 2.2 | | 3.6 | | 1.6 |

Activity 1

- 1) Carefully read the comparative income statement of XYZ and write down how the company has performed over the 5 year period and also its performance in comparison to the industry.

.....
.....
.....

- 2) Visit any company’s website and download their income statement for 5 year period. Perform horizontal analysis. Collect the industry average for the company and list down the performance of the company with respect to the industry average.

.....
.....
.....

- 3) List down the usefulness of the comparative financial statements.

.....
.....
.....

18.5 TREND ANALYSIS

The earlier sections had exposed you to analyzing statements using horizontal and vertical form as well as using the common size financial statements in the comparative form. The horizontal analysis performed there, comparing the performance of the XYZ company over the five year period indicates the time series analysis or rather trend analysis. This is called as trend analysis because we are trying to see if there is a pattern in the performance of the company over the year which could help us forecast the performance of the company for the future. Why this is useful? Its utmost useful because we are not only interested in the past performance whereas our utmost interest lies in finding whether the company will continue to perform the same way or in a better way in the coming years. Similar analysis is done for investing in stocks. There are experts in Technical Analysis who perform similar analysis of analyzing the trend of the price movement of the stock and predicting the future stock price. Similar analysis is done here as well. But how and where can we use the trend analysis of the financial statements?

Trend analysis is a key to recognizing potential problems of a borrower. This is important during the initial review of a loan application, as well as part of on-going monitoring of a loan that has already been disbursed. Sound companies and weak ones may have displayed some of the same trends, however, it is a pattern of many negative trends that indicates a potential problem that needs to be evaluated further.

Trend analysis involves spreading the financial statements and comparing similar operating periods (i.e. year to year). This comparative analysis allows the reviewer to identify both positive and negative trends. Once a pattern of negative trends are identified further action should be taken. For a potential loan, additional information or a detailed explanation should be obtained. The trends should be weighed carefully in making or rejecting the loan. For loans that have already been made, a

pattern of negative trends requires fast action. Current financial information may indicate a problem that will enable the reviewer time to react. The following is a general discussion of some trends to look for in the review of financial statements:

- 1) **Decreasing cash position:** This could be a lower level of cash or cash as a percentage of total assets. Look for changes in deposit activity, draws on uncollected funds, declining average monthly balances, etc.
- 2) **Slowdown in receivables collection:** Could be an indication of distractions in the business, neglect, changes in collection policies, etc.
- 3) **Significant increases in accounts receivable:** This could be in the dollar amount, percentage of assets or in accounts receivable to a single customer (need aging of accounts receivable to determine).
- 4) **Rising inventories:** Either in the dollar amount or as a percentage of total assets. This may be an indication of a need to liquidate excessive or obsolete inventory, lack of attention to purchasing, slowing of sales, etc.
- 5) **Slowdown in inventory turnover:** This could indicate a slowdown in sales, overbuying, production problems, and/or problems in the purchasing policies of the business.
- 6) **Changes in sales terms/sales policies:** Look for changes from cash sales to instalment sales, leasing instead of selling, and other similar changes.
- 7) **A decline in liquid assets:** This could be a dollar decline or a decline in current assets (cash, accounts receivable, etc.) to total assets. As current assets decline or become less liquid, a business may experience difficulties meeting current liabilities.
- 8) **Changes in the concentration of fixed assets:** Both declining and rising concentrations of fixed assets should be reviewed. A decline could indicate that funds needed to purchase fixed assets are being used for other purposes. This can be a significant problem if a business is not replacing, renovating or rehabilitating fixed assets as needed. A rise in fixed assets could be a problem when done at the expense of other assets/operational need. Levels of fixed assets should be compared to both historical financial statements and industry averages.
- 9) **Revaluation of assets:** A revaluation of assets on the financial statements needs to be justified. If not justified, it impacts the financial picture of the company.
- 10) **Changes in liens of assets:** Evidence of new subordinated debt should be a concern. It could indicate a deteriorating financial situation.
- 11) **A high or increasing concentration of assets in intangibles:** The value of intangible assets is difficult to establish. Typically, intangible assets are eliminated from the financial review.
- 12) **Increases in current debt:** A rise that is tied to a concentration in trade debt or no corresponding increase in assets should be viewed as a risk factor. Increases in long-term debt: Increases in long term debt must be reviewed carefully. If repayment is dependent on higher than historical or reasonable projected sales, a concern should be raised.
- 13) **An increase or major gap between gross and net sales:** result or lower quality, production problems, out-of-date product lines and other related production and/or market factors.

- 14) **An increase in debt to capital:** This is of particular concern when the current ratio is low. Undercapitalized firms will typically exhibit poor working capital conditions.
- 15) **Increase in cost of goods sold:** An increase may indicate problems in the operation or other expense areas.
- 16) **Decline in profits compared to sales:** The decline may be a result of poor cost controls, management problems, failure to pass on increases in costs, etc.
- 17) **Increases in bad debt:** An increase as a percentage of sales usually indicates poor collection procedures, management problems and/or deterioration of the quality of the customer.
- 18) **Assets rising faster than sales:** This is an indication that increased assets are not creating increases in sales.
- 19) **Assets rising faster than profits:** Assets are investments designed to create profits. Concerns should be raised when increased assets are not resulting in higher profits.
- 20) **Significant variations in other areas of the financial statements:** Marked changes should always be examined!
- 21) **An increase or major gap between gross and net sales:** Result of lower quality, production problems, out-of-date product lines and other related production and/or market factors.
- 22) **An increase in debt to capital:** This is of particular concern when the current ratio is low. Undercapitalized firms will typically exhibit poor working capital conditions.
- 23) **Increase in cost of goods sold:** An increase may indicate problems in the operation or other expense areas.
- 24) **Decline in profits compared to sales:** The decline may be a result of poor cost controls, management problems, failure to pass on increase in costs, etc.
- 25) **Increases in bad debt:** An increase as a percentage of sales usually indicates poor collection procedures, management problems and/or deterioration of the quality of the customer.
- 26) **Assets rising faster than sales:** This is an indication that increased assets are not creating increases in sales.
- 27) **Assets rising faster than profits:** Assets are investments designed to create profits. Concerns should be raised when increased assets are not resulting in higher profits.
- 28) **Significant variations in other areas of the financial statements:** Marked changes should always be examined!

Apart from the above analysis one could adopt a simpler form of performing trend analysis. This is done by performing what is called as the Index Number Trend analysis.

Index-Number Trend Series

If you are trying to analyze financial data that span a long period of time, mechanically trying to compare financial statements can turn into quite a cumbersome task. If you find yourself in this boat, try to create an index-number trend series to alleviate some of your confusion.

First, choose a base year to which all other financial data will be compared. Usually, the base year is the earliest year in the group being analyzed, or it can be another year you consider particularly appropriate.

Next, express all base year amounts as 100 percent. Then state corresponding figures from following years as a percentage of the base year amounts. Keep in mind that index-numbers can be computed only when amounts are positive.

Hypothetical Example

| | 2001 | 2002 | 2003 |
|--------------------|---------|---------|---------|
| Sales | 100,000 | 150,000 | 175,000 |
| Index-Number Trend | 100% | 150% | 175% |

The index-number trend series technique is a type of horizontal analysis that can provide you with a long range view of your firm's financial position, earnings, and cash flow. It is important to remember, however, that long-range trend series are particularly sensitive to changing price levels. For instance, the price level could increase to greater extent for some years. A horizontal analysis that ignored such a significant change might suggest that your sales or net income increased dramatically during the period when, in fact, little or no real growth occurred.

Data expressed in terms of a base year can be very useful when comparing your company's figures to those from government agencies and sources within your industry or the business world in general, because they will often use an index-number trend series as well. When making comparisons, be sure the samples you use are in the same base period. If they aren't, simply change one so they match.

18.6 RATIO ANALYSIS

We have seen that most of us are interested in the bottom line of the company. Or in other words analysing the profitability of a company. While the profit figure is important, it however, does not give the complete picture of the performance of the company. So one should not use the bottom line figure alone as a barometer for some sort of an indicator. That would have severe repercussions. Take for instance two companies A and B of the same industry. A has earned a profit of Rs. 100 Crs. And B has earned Rs. 1000 Crs. for the financial year 2003. Now one would on the face of it say that Company B is better than company A. However, if it should be wise enough to compare the profit earned with the level of investment made to earn the profit. For instance, company A had spent about 500 Crs to earn Rs 100 Cr. Profit and Company B had spent about Rs. 1000 Cr. to earn Rs. 1000 Cr. profit. So its clear that profitability of company A is higher than company B. In that the profit earned to the investment ratio is higher for company A ($100/500 = 20\%$) compared to company B ($1000/10000 = 10\%$). Hence one should look at profitability and not just profit figures. So the key point is that one has to look into appropriate ratios not just absolute figures for comparison. Hence ratio analysis would help understand the financial results better.

This often means working out a range of ratios. By doing so, a large amount of complex information can be condensed into easily digestible and standardized form, and numerous comparisons between different years for a single company, between companies of varying sizes or between industries can be made. (Note that a ratio in isolation generally has little meaning).

And it is important to note that ratios are just signals, or clues, rather than the answers to complex questions about a company. Some might direct you to a

specific problem within the company, but many tell you no more than that something needs further investigation.

A ratio can be expressed in various ways, including as a percentage, a fraction, a “times” figure, a number of days, a rate or as a simple number.

The various ratios that are generally used have been summarized below.

18.6.1 Liquidity Analysis Ratios

A firm needs liquid assets to meet day to day payments. Therefore, liquidity ratios highlight the ability of the firms to convert its assets into cash. If the ratios are low then it means that money is tied up in stocks and debtors. Thus, money is not available to make payments. This may cause considerable problems for firms in the short run. It is often viewed that a value less than 1.5 implies that the company may run out of money as its cash is tied up in unproductive assets.

Liquidity ratio helps in assessing the firm’s ability to meet its current obligations. The following ratios come under this category:

- i) Current ratio;
- ii) Quick ratio; and
- iii) Net Working Capital Ratio.

i) Current Ratio

The current ratio shows the relationship between the current assets and the current liabilities. Current assets include cash in hand, cash at bank and all other assets which can be converted into cash in the ordinary course of business, for instance, bills receivable, sundry debtors (good debts only), short-term investments, stock etc. Current liabilities consists of all the obligations of payments that have to be met within a year. They comprise sundry creditors, bills payable, income received in advance, outstanding expenses, bank overdraft, short-term borrowings, provision for taxation, dividends payable, long term liabilities to be discharged within a year. The following formula is used to compute this ratio:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

ii) Quick Ratio

The acid test ratio is similar to the current ratio as it highlights the liquidity of the company. A ratio of 1:1 (i.e., a value of approximately 1) is satisfactory. However, if the value is significantly less than 1 it implies that the company has a large amount of its cash tied up in unproductive assets, so the company may struggle to raise money in the short term.

$$\text{Quick Ratio} = \frac{\text{Quick Assets}}{\text{Current Liabilities}}$$

$$\text{Quick Assets} = \text{Current Assets} - \text{Inventories}$$

iii) Net Working Capital Ratio

The working capital ratio can give an indication of the ability of your business to pay its bills.

Generally a working capital ratio of 2:1 is regarded as desirable. However, the circumstances of every business vary and you should consider how your business operates and set an appropriate benchmark ratio. A stronger ratio indicates a better ability to meet ongoing and unexpected bills therefore taking the pressure off your cash flow. Being in a liquid position can also have advantages such as being able to negotiate cash discounts with your suppliers. A weaker ratio may indicate that your business is having greater difficulties meeting its short-term commitments and that additional working capital support is required. Having to pay bills before payments are received may be the issue in which case an overdraft could assist. Alternatively building up a reserve of cash investments may create a sound working capital buffer. Ratios should be considered over a period of time (say three years), in order to identify trends in the performance of the business.

The calculation used to obtain the ratio is:

$$\text{Net Working Capital Ratio} = \frac{\text{Net Working Capital}}{\text{Total Assets}}$$

$$\text{Net Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

Illustration 1

The Balance Sheet of X Company Ltd. as on March 31, 2005 is given below. You are required to calculate the following ratios:

- i) Current ratio,
- ii) Quick ratio,
- iii) Net Working capital ratio.

Balance Sheet of X Company Ltd., as on 31.3.2005

| Liabilities | Amount Rs. | Assets | Amount Rs. |
|------------------------|---------------|---------------------|---------------|
| Share Capital | 20,000 | Buildings | 20,000 |
| Reserves and Surplus | 16,000 | Plant and Machinery | 10,000 |
| Debentures | 10,000 | Stock | 8,000 |
| Sundry Creditors | 11,000 | Sundry Debtors | 7,000 |
| Bank Overdraft | 1,000 | Prepaid expenses | 2,000 |
| Bills Payable | 2,000 | Securities | 12,000 |
| Provision for Taxation | 1,000 | Bank | 2,000 |
| Outstanding Expenses | 1,000 | Cash | 1,000 |
| | 62,000 | | 62,000 |

Solution

$$i) \text{ Current ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$\begin{aligned} \text{Current Assets} &= \text{Cash Rs. 1000} + \text{Bank Rs. 2000} + \text{Securities Rs. 12000} \\ &\quad + \text{Prepaid expenses Rs. 2000} + \text{Sundry Debtors Rs. 7000} \\ &\quad + \text{Stock Rs. 8000} \\ &= \text{Rs. 32,000.} \end{aligned}$$

Analysis of Financial Statements

Current Liabilities = Outstanding expenses Rs. 1000 + Provision for taxation Rs. 1000 + Bills payable Rs. 2000 + Bank overdraft Rs. 1000 + Sundry creditors Rs. 11,000
= Rs. 16,000.

$$\therefore \text{Current ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} = \frac{32,000}{16,000} = 2:1$$

ii) Quick ratio = $\frac{\text{Quick Assets}}{\text{Current Liabilities}}$
Quick Assets = Cash Rs. 1000 + Bank Rs. 2000 + Securities Rs. 12,000 + Sundry Debtors Rs. 7,000
= Rs. 22,000.

Current Liabilities = Sundry creditors Rs. 11,000 + Bills payable Rs. 2000 + Outstanding expenses Rs. 1000 + Provision for Taxation Rs. 1000 + Bank overdraft Rs. 1000
= Rs. 16,000

Quick ratio = $\frac{\text{Quick Assets}}{\text{Current Liabilities}}$
= $\frac{22,000}{16,000}$
= 1.37:1

iii) Net Working capital ratio = $\frac{\text{Net Working Capital}}{\text{Total Assets}}$

Net Working Capital = Current Assets ---- Current Liabilities
= Rs. 32,000 ---- Rs. 16,000
= Rs. 16,000

Net Working capital ratio = $\frac{16,000}{32,000}$
= 1: 2.

18.6.2 Profitability Analysis Ratios

Profitability ratios are the most significant - and telling - of financial ratios. Similar to income ratios, profitability ratios provide a definitive evaluation of the overall effectiveness of management based on the returns generated on sales and investment.

Profitability in relation to Sales

Profits earned in relation to sales give the indication that the firm is able to meet all operating expenses and also produce a surplus. In order to judge the efficiency of management with respect to production and sales, profitability ratios are calculated in relation to sales.

There are :

- i) Gross Profit Margin
- ii) Net Profit Margin
- iii) Operating Profit Margin
- iv) Operating Ratio.

i) Gross Profit Margin

This is also known as gross profit ratio or gross profit to sales ratio. This ratio may indicate to what extent the selling prices of goods per unit may be reduced without incurring losses on operations. This ratio is useful particularly in the case of wholesale and retail trading firms. It establishes the relationship between gross profit and net sales. Its purpose is to show the amount of gross profit generated for each rupees of sales. Gross profit margin is computed as follows:

$$\text{Gross profit} = \frac{\text{Gross profit}}{\text{Net Sales}} \times 100$$

The amount of gross profit is the difference between net sales income and the cost of goods sold which includes direct expenses. A high margin enables all operating expenses to be covered and provides a reasonable return to the shareholders. If gross profit rate is continuously lower than the average margin, something is wrong. To keep the ratio high, management has to minimise cost of goods sold and improve sales performance. Higher the ratio, the greater would be the margin to cover operating expenses and *vice versa*.

Note : This percentage rate can --- and will --- vary greatly from business to business, even those within the same industry. Sales location, size of operations and intensity of competition etc., are the factors that can affect the gross profit rate.

Illustration 2

From the following particulars, calculate gross profit margin.

Trading Account of ABC Company for the year ended March 31, 2005

| | | | |
|--------------------|-----------------|------------------|-----------------|
| | Rs. | | Rs. |
| To Opening stock | 6,000 | By Net sales | 96,000 |
| To Net purchases | 63,000 | By Closing stock | 6,000 |
| To Direct expenses | 9,000 | | |
| To Gross profit | 24,000 | | |
| | <u>1,02,000</u> | | <u>1,02,000</u> |

Solution

$$\begin{aligned} \text{Gross Profit Margin} &= \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100 \\ &= \frac{24,000}{96,000} \times 100 \\ &= 25\% \end{aligned}$$

ii) Net Profit Margin

This ratio is called net profit to sales ratio and explains the relationship between net profit after taxes and net sales. The purpose of this ratio is to reveal the amount of sales income left for shareholders after meeting all costs and expenses of the business. It measures the overall profitability of the firm. The higher the ratio, the greater would be the return to the shareholders and vice versa. A net profit margin of 10% is considered normal. This ratio is very useful to control costs and to increase the sales. It is calculated as follows:

$$\text{Net Profit Margin} = \frac{\text{Net Profit after taxes}}{\text{Net Sales}} \times 100$$

Illustration 3

The Gross Profit Margin of a company is Rs. 12,00,000 and the operating expenses are Rs. 4,50,000. The taxes to be paid are Rs. 4,80,000. The sales for the year are Rs. 27,00,000. Calculate Net Profit Margin.

Solution

$$\text{Net Profit Margin} = \frac{\text{Net Profit after taxes}}{\text{Net Sales}} \times 100$$

$$\begin{aligned} \text{Net Profit after taxes} &= \text{Gross Profit} - \text{Expenses} - \text{Taxes} \\ &= \text{Rs. } 12,00,000 - \text{Rs. } 4,50,000 - \text{Rs. } 4,80,000 \\ &= \text{Rs. } 2,70,000 \end{aligned}$$

$$\begin{aligned} \text{Net Profit Margin} &= \frac{2,70,000}{27,00,000} \times 100 \\ &= 0.10 \text{ or } 10\% \end{aligned}$$

iii) Operating Profit Margin

This ratio is a modified version of Net Profit Margin. **It studies the relationship between operating profit** (also known as PBIT — Before Interest and Taxes) **and sales**. The purpose of computing this ratio is to find out the amount of operating profit for each rupee of sale. While calculating operating profit, non-operating expenses such as interest, (loss on sale of assets etc.) and non-operating income (such as profit on sale of assets, income on investment etc.) have to be ignored. The formula for this ratio is as follows:

$$\text{Operating Profit Margin} = \frac{\text{Operating Profit}}{\text{Sales}} \times 100$$

Illustration 4

From the following particulars of Nanda and Co., calculate Operating Profit Margin.

**Profit and Loss Account of Nanda and Co. Ltd.
as on March 31, 2005**

| | Rs. | | Rs. |
|----------------------------|--------|---------------------|--------|
| To Opening Stock | 3,000 | By Sales | 36,000 |
| To Purchases | 22,000 | By Closing Stock | 10,000 |
| To Manufacturing Expenses | 9,000 | | |
| To Gross Profit c/d | 12,000 | | |
| | 46,000 | | 46,000 |
| To Operating Expenses | 4,000 | By Gross Profit b/d | 12,000 |
| To Administrative Expenses | 2,000 | | |
| To Interest on Debentures | 1,000 | | |
| To Net Profit | 5,000 | | |
| | 12,000 | | 12,000 |

Solution

$$\text{Operating Profit Margin} = \frac{\text{Operating Profits}}{\text{Sales}} \times 100$$

$$\text{Operating Profits} = \text{Net Profit} + \text{Interest on Debenture (non-operating expenses)}$$

$$= \text{Rs. } 5000 + \text{Rs. } 1000 = \text{Rs. } 6,000$$

$$\text{Operating Profit Margin} = \frac{\text{Rs. } 6,000}{\text{Rs. } 36,000} \times 100 = 0.167 \text{ or } 16.7 \%$$

A high ratio is an indicator of the operational efficiency and a low ratio stands for operational inefficiency of the firm.

iv) Operating Ratio

This ratio established the relationship between total costs incurred and sales. It may be calculated as follows :

$$\text{Operating Ratio} = \frac{\text{Cost of goods sold} + \text{Operating expenses}}{\text{Sales}} \times 100$$

Illustration 5

From the following particulars, calculate the Operating Ratio :

| | Rs. |
|------------------------|----------|
| Sales | 5,00,000 |
| Opening Stock | 1,00,000 |
| Purchases | 2,00,000 |
| Manufacturing Expenses | 25,000 |
| Closing Stock | 30,000 |
| Selling Expenses | 5,000 |
| Office Expenses | 20,000 |

Solution

$$\text{Operating Ratio} = \frac{\text{Cost of goods sold} + \text{Operating expenses}}{\text{Sales}} \times 100$$

$$\begin{aligned} \text{Cost of Goods sold} &= \text{Opening Stock} + \text{Purchases} + \\ &\quad \text{Manufacturing expenses} \text{ --- Closing Stock.} \\ &= \text{Rs. } 1,00,000 + \text{Rs. } 2,00,000 + \text{Rs. } 25,000 \text{ --- Rs. } 30,000 \\ &= \text{Rs. } 2,95,000. \end{aligned}$$

$$\begin{aligned} \text{Operating Expenses} &= \text{Selling Expenses} + \text{Offices Expenses} \\ &= \text{Rs. } 5000 + \text{Rs. } 20,000 = \text{Rs. } 25,000 \end{aligned}$$

$$\text{Operating Ratio} = \frac{\text{Rs. } 2,95,000 + \text{Rs. } 25,000}{\text{Rs. } 5,00,000} = 0.64 \text{ or } 64 \%$$

High operating ratio is undesirable as it leaves a small portion of income to meet other non-operating expenses like interest on loans. A low ratio is better and reflects the efficiency of management. Lower the ratio, higher would be the

profitability. If operating ratio is 64%, it indicates that 64% of sales income has gone to meet cost of goods sold and operating expenses and 36% is left for other expenses and dividend.

The operating ratio shows the overall operating efficiency of the business. In order to know how individual items of operating expenses are related to sales, individual expenses ratios can also be calculated. These are calculated by taking operational expenses like cost of goods sold, administrative expenses, selling and distribution, individually in relation to sales (net).

18.6.3 Profitability in Relation to Capital Employed (Investment)

Profitability ratio, as stated earlier, can also be computed by relating profits to capital or investment. This ratio is popularly known as Rate of Return on Investment (ROI). The term investment may be used in the sense of capital employed or owners' equity. Two ratios are generally calculated:

- i) Return on Capital Employed (ROCE), and
- ii) Return on Shareholders' Equity.

i) Return on Capital Employed (ROCE)

The ratio establishes the relationship between total capital and net operating profit of the business. The purpose of this ratio is to find out whether capital employed is effectively utilised or not. The formula for calculating Return on Capital Employed is:

$$\text{Return on Capital Employed} = \frac{\text{Net Operating Profit}}{\text{Capital Employed}} \times 100$$

The term 'Net Operating Profit' means 'Profit before Interest and Tax'. The term 'Interest' means 'Interest on Long-term borrowings'. Interest on short-term borrowings will be deducted for computing operating profit. Similarly, non-trading incomes such as income from investments made outside the business etc. or non-trading losses or expenses will also be excluded while calculating profit. The term 'capital employed' has been given different meanings by different accountants. Three widely accepted terms are as follows:

- 1) Gross Capital Employed = Fixed Assets + Investments + Current Assets
- 2) Net Capital Employed = Fixed Assets + Investments + Net Working Capital (Current Assets --- Current Liabilities).
- 3) Sum total of long term funds = Share capital + Reserves and Surpluses + Long Term Loans --- Fictitious Assets --- Non business Assets.

In managerial decisions the term capital employed is generally used in the meaning given in the third point above.

Return on capital employed ratio is very significant as it reflects the overall efficiency of the firm. The higher the ratio, the greater is the return on long-term funds invested in the firm. It is also an indication of the effective utilisation of capital employed. However, it is very difficult to set a standard ratio of return on capital employed as a number of factors such as business risk, the nature of the industry, economic conditions etc., may influence such rate. This ratio could be supplemented with a number of ratios depending upon the purpose for which it is computed.

Illustration 5

From the following financial statements, calculate return on capital employed.

Profit and Loss Account for the year ended 31.3.2005

| | Rs. | | Rs. |
|---------------------------|-----------------|------------------------------|-----------------|
| To Cost of goods sold | 3,00,000 | By Sales | 5,00,000 |
| To Interest on Debentures | 10,000 | By Income from Investment | 10,000 |
| To Provision for Taxation | 1,00,000 | | |
| To Net Profit | 1,00,000 | | |
| | <u>5,10,000</u> | | <u>5,10,000</u> |

Balance Sheet as on 31.3.2005

| Liabilities | Rs. | Assets | Rs. |
|------------------------|-----------------|----------------------------|-----------------|
| Share Capital | 3,00,000 | Fixed Assets | 4,50,000 |
| Reserves | 1,00,000 | Investments in Govt. Bonds | 1,00,000 |
| 10% Debentures | 1,00,000 | Current Assets | 1,50,000 |
| Profit and Loss a/c | 1,00,000 | | |
| Provision for Taxation | 1,00,000 | | |
| | <u>7,00,000</u> | | <u>7,00,000</u> |

Solution

$$\text{Return on Capital Employed} = \frac{\text{Net Operating Profit}}{\text{Capital Employed}} \times 100$$

$$\begin{aligned} \text{Net Operating Profit} &= \text{Net Profit before Tax and Interest} \text{ --- Income from Investment} \\ &= \text{Rs. } 1,00,000 + 100,000 + 10,000 \text{ --- } 10,000 \\ &= \text{Rs. } 2,00,000 \end{aligned}$$

$$\begin{aligned} \text{Capital Employed} &= \text{Fixed Assets} + \text{Current Assets} \text{ --- Current Liability} \\ &= \text{Rs. } 4,50,000 + \text{Rs. } 1,50,000 \text{ --- Rs. } 1,00,000 \\ &= \text{Rs. } 5,00,000 \end{aligned}$$

OR

$$\begin{aligned} &= \text{Share Capital} + \text{Reserves} + \text{Debentures} + \text{Profit and Loss account} \text{ --- Investments in Govt. Bonds} \\ &= \text{Rs. } 3,00,000 + \text{Rs. } 1,00,000 + \text{Rs. } 1,00,000 + \text{Rs. } 1,00,000 \text{ --- Rs. } 1,00,000 \\ &= \text{Rs. } 5,00,000 \end{aligned}$$

$$\begin{aligned} \text{Return on Capital Employed} &= \frac{2,00,000}{5,00,000} \times 100 \\ &= 40\% \end{aligned}$$

Return on Investment (ROI)

When you are asked to find out the profitability of the Company from the share holders' point of view, Return on Investment should be Computed as follows:

$$\text{Return on Investment} = \frac{\text{Net Profit after Interest and Tax}}{\text{Shareholders' Funds}} \times 100$$

The term 'Net Profit' means 'Net Income after Interest and Tax'. This is because the shareholders are interested in Total Income after Tax including Net non-operating income.

From illustration 5, Net profit after interest and tax will be Rs. 1,00,000 and Return on Investment will be 20% i.e. $(\frac{1,00,000}{5,00,000} \times 100)$

ii) Return on Shareholders' Equity

This ratio shows the relationship between net profit after taxes and Shareholders' equity. It reveals the rate of return on owners'/shareholders' funds. The term shareholders' equity is also known as 'net worth' and includes Equity Capital, Share Premium and Reserves and Surplus. The formula of this ratio is as follows:

$$\text{Return on Shareholder's Equity} = \frac{\text{Net Profit after Tax and Preference Dividend}}{\text{Shareholders' Equity}}$$

Illustration 6

From the following Balance Sheet find Return on Shareholders' Equity. **Balance Sheet of ABC Company Ltd. as on 31.3.2005**

| Liabilities | Rs. | Assets | Rs. |
|------------------------|-----------------|----------------|-----------------|
| Equity Share Capital | 1,00,000 | Fixed Assets | 2,25,000 |
| 10% Preference Capital | 50,000 | Current Assets | 1,25,000 |
| Reserves | 50,000 | | |
| 10% Debentures | 50,000 | | |
| Profit and Loss a/c | 50,000 | | |
| Provision for Taxation | 50,000 | | |
| | <u>3,50,000</u> | | <u>3,50,000</u> |

Solution

$$\text{Return on Shareholders' equity} = \frac{\text{Net Profit After Tax and Prefence Dividend}}{\text{Shareholders' Equity}} \times 100$$

Net profit after, tax and preference Dividend

$$= \text{Rs. } 50,000 \text{ ---- Preference dividend } 5000 \left(\text{Pref. capital } 50,000 \times \frac{10}{100} \right)$$

$$= \text{Rs. } 45,000$$

$$\begin{aligned} \text{Shareholders' equity} &= \text{Equity capital} + \text{Reserves} + \text{Profit and Loss account} \\ &= \text{Rs. } 1,00,000 + 50,000 + 45,000 \\ &= \text{Rs. } 1,95,000 \end{aligned}$$

$$\text{Return on Shareholders' Equity} = \frac{45,000}{1,95,000} \times 100$$

$$= 23 \%$$

The higher the ratio, the greater is the efficiency of the firm in generating profits on shareholders' equity and vice versa. The ratio is very important for the investors to judge whether their investment in the firm generates a reasonable return or not.

This ratio is important to the management as it proves their efficiency in employing the funds profitably.

Earnings Per Share

Earnings per Share (EPS) is an important ratio from equity shareholders' point of view as this ratio affects the market price of share and the amount of dividend to be given to the equity shareholders. The earnings per share is calculated as follows:

$$\text{Earnings Per Share (EPS)} = \frac{\text{Net profit after Tax} - \text{Preference Dividend}}{\text{Number of Equity Shares}}$$

Illustration 7

From the following information calculate Earnings per Share of X Company Ltd. :

**Balance Sheet of X Company Ltd.
as on March 31, 2005**

| Liabilities | Rs. | Assets | Rs. |
|--|-----------|---------------------|-----------|
| Equity Share Capital (25,000 Share) | 2,50,000 | Plant and Machinery | 8,00,000 |
| 9% Preference Share Capital | 1,00,000 | Current Assets | 2,50,000 |
| Reserves and Surpluses | 3,00,000 | | |
| 8% Long term Loans | 3,00,000 | | |
| Current Liabilities | 1,00,000 | | |
| | 10,50,000 | | 10,50,000 |

The net profit before interest and after Tax was Rs. 78,000.

Solution

$$\begin{aligned} \text{Earnings per share} &= \frac{\text{Net Profit after Tax} - \text{Preference Dividend}}{\text{Number of Equity Shares}} \\ &= \frac{\text{Rs. 78000} - 9000 \text{ (9\% of Rs.1,00,000)}}{25,000} \\ &= \frac{\text{Rs. 69,000}}{25,000} = \text{Rs. 2.76} \end{aligned}$$

The Earnings Per Share is useful in determining the market price of equity share and capacity of the company to pay dividend. A comparison of earning per share with another company helps to know whether the equity capital is effectively used in the business or not.

18.6.4 Activity Analysis Ratios

Activity Analysis Ratio may be studied under the following three heads:

- i) Assets Turnover Ratio,
- ii) Accounts Receivable Turnover Ratio, and
- iii) Inventory Turnover Ratio.

Assets Turnover Ratio

The asset turnover ratio simply compares the turnover with the assets that the business has used to generate that turnover. In its simplest terms, we are just saying that for every Re. 1 of assets, the turnover is Rs. x. The formula for total asset turnover is:

$$\text{Assets Turnover Ratio} = \frac{\text{Sales}}{\text{Average Total Assets}}$$

$$\text{Average Total Assets} = \frac{\text{Beginning Total Assets} + \text{Ending Total Assets}}{2}$$

Asset turnover is meant to measure a company's efficiency in using its assets. The higher a company's asset turnover, the lower its profit margin tends to be and visa versa .

Accounts Receivable Turnover Ratio

The debtor turnover ratio indicates the average time it takes your business to collect its debts. It's worth looking at this ratio over a number of financial years to monitor performance trends.

Use information from your annual Profit and Loss Statement along with the trade debtors figure from your Balance Sheet for that financial year to calculate this ratio.

A ratio that is lengthening can be the result of some debtors slowing down in their payments. Economic factors, such as a recession, can also influence the ratio. Tightening your business' credit control procedures may be required in these circumstances.

The debtor ageing ratio has a strong impact on business operations particularly working capital. Maintaining a running total of your debtors by ageing (e.g. current, 30 days, 60 days, 90 days) is a good idea, not just in terms of making sure you are getting paid for the work or goods you are supplying but also in managing your working capital.

The calculation used to obtain the ratio is:

$$\text{Debtor Ageing Ratio (in days)} = \frac{\text{No. of days (365) or months (12) in a year}}{\text{Accounts receivables turnover ratio}}$$

$$\text{Accounts Receivable Turnover Ratio} = \frac{\text{Sales}}{\text{Average Accounts Receivable}}$$

$$\text{Average Accounts Receivable} = \frac{(\text{Beginning Accounts Receivable} + \text{Ending Accounts Receivable})}{2}$$

Inventory Turnover Ratio

The inventory turnover ratio indicates how quickly your business is turning over stock.

A high ratio may indicate positive factors such as good stock demand and management. A low ratio may indicate that either stock is naturally slow moving or problems such as the presence of obsolete stock or good presentation. A low ratio can also be indicative of potential stock valuation issues. It is a good idea to monitor the ratio over consecutive financial years to determine if a trend is developing.

It can be useful to compare this financial ratio with the working capital ratio. For example, business operations with low stock turnover tend to require higher working capital.

The calculation used to obtain the ratio is:

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventories}}$$

$$\text{Average Inventories} = \frac{(\text{Beginning Inventories} + \text{Ending Inventories})}{2}$$

18.6.5 Long-term Solvency Ratios

The long-term solvency ratios are calculated to assess the long-term financial position of the business. These ratios are also called **leverage, or capital structure ratios, or capital gearing ratios**. The following ratios generally come under this category :

- i) Debt-Equity Ratio/Total Debt Equity Ratio,
- ii) Proprietary ratio, and
- iii) Capital Gearing ratio.

i) Debt-Equity Ratio/Total Debt Equity Ratio

It shows the relationship between borrowed funds and owner's funds, or external funds (debt) and internal funds (equity). **The purpose of this ratio is to show the extent of the firm's dependence on external liabilities or external sources of funds.**

In order to calculate this ratio, the required components are external liabilities and owner's equity or networth. 'External liabilities, include both long-term as well as short-term borrowings. The term 'owners equity' includes past accumulated losses and deferred expenditure. Since **there are two approaches to work out this ratio**, there are two formulas as shown below :

$$\text{ii) Total Debt-Equity Ratio} = \frac{\text{Long-Term Debt}}{\text{Owner's Equity}}$$
$$= \frac{\text{Total Debt}}{\text{Owner's Equity}}$$

In the first formula, the numerator consists of only long-term debts, it does not include short-term obligations or current liabilities for the following reasons :

- 1) Current liabilities are of a short-term nature and the liquidity ratios are calculated to judge the ability of the firm to honour current obligations.
- 2) Current liabilities vary from time to time within a year and interest thereon has no relationship with the book value of current liabilities.

In the second formula, both short-term and long-term debts are counted in the numerator. The reasons are as follows :

- 1) When a firm has an obligation, no matter whether it is of short-term or long-term nature, it should be taken into account to evaluate the risk of the firm.
- 2) Just as long-term loans have a cost, short-term loans do also have a cost.
- 3) As a matter of fact, the pressure from the short-term creditors is often greater than that of long-term loans.

Illustration 8

From the following Balance Sheet of Kavitha Ltd., Calculate Debt Equity Ratio :

**Balance Sheet of Kavitha Ltd.
as on March 31, 2004**

| Liabilities | Amount Rs. | Assets | Amount Rs. |
|------------------------|-----------------|---------------------|-----------------|
| Equity Capital | 1,50,000 | Land and Buildings | 2,00,000 |
| 9% Preference Capital | 60,000 | Plant and Machinery | 2,00,000 |
| Reserves and Surpluses | 40,000 | Sundry Debtors | 1,10,000 |
| 8% Debentures | 80,000 | Cash at Bank | 35,000 |
| Long-term loans | 1,20,000 | | |
| Creditors | 30,000 | | |
| Bills payable | 65,000 | | |
| | <u>5,45,000</u> | | <u>5,45,000</u> |

Solution

$$\begin{aligned}
 \text{i) Debt-Equity Ratio} &= \frac{\text{Long-term Liabilities/Debt}}{\text{Owner's Equity}} \\
 \text{Long-term liabilities} &= \text{Long-term Loan} + 8\% \text{ Debentures} \\
 &= \text{Rs. } 1,20,000 + \text{Rs. } 80,000 \\
 &= \text{Rs. } 2,00,000 \\
 \text{Owner's equity (Networth)} &= \text{Equity Capital} + \text{Preference Capital} + \\
 &\quad \text{Reserves and Surplus} \\
 &= \text{Rs. } 1,50,000 + \text{Rs. } 60,000 + \text{Rs. } 40,000 \\
 &= \text{Rs. } 2,50,000 \\
 &\quad \underline{\text{Rs. } 2,00,000} \\
 \text{Debt -equity ratio} &= \frac{\text{Rs. } 2,50,000}{\text{Total Debt}} = 0.8:1 \\
 \text{ii) Total Debt-Equity Ratio} &= \frac{\text{Total Debt}}{\text{Owners' Equity}} \\
 \text{Total Debt} &= \text{Long-term Loan} + 8\% \text{ Debentures} + \text{Bills Payable} + \text{Creditors} \\
 &= \text{Rs. } 1,20,000 + \text{Rs. } 80,000 + \text{Rs. } 30,000 + \text{Rs. } 45,000 \\
 &= \text{Rs. } 2,75,000 \\
 &\quad \underline{\text{Rs. } 2,75,000}
 \end{aligned}$$

$$\text{Total Debt to Equity Ratio} = \text{Rs. } 2,50,000 = 1.1:1$$

For analysing the capital structure, debt-equity ratio gives an idea about the relative share of funds of outsiders and owners invested in the business. **The ratio of long-term debt to equity is generally regarded as safe if it is 2:1.** A higher ratio may put the firm in difficulty in meeting the obligation to outsiders. The higher the ratio, the greater would be the risk as the firm has to pay interest irrespective of profits. On the other hand, a smaller, ratio is less risky and creditors will have greater margin or safety.

What ratio is ideal will depend on the nature of the enterprise and the economic conditions prevailing at that time. During business prosperity a high ratio may be favourable and in a reverse situation a low ratio is preferred. The Controller of Capital Issues in India suggests 2:1 as the norm for this ratio.

ii) Proprietary Ratio

This ratio is also known as **Equity Ratio** or **Networth to Total Assets Ratio**. It is a variant of Debt-Equity Ratio, and shows the relationship between owners' equity and total assets of the firm. **The purpose of this ratio is to indicate the extent of owners' contribution towards the total value of assets.** In other words, it gives an idea about the extent to which the owners own the firm.

The components required to compute this ratio are proprietors' funds and total assets. Proprietors' funds include equity capital, preference capital, reserves and undistributed profits. If there are accumulated losses they are deducted from the owners' funds. 'Total assets' include both fixed and current assets but exclude fictitious assets, such as preliminary expenses; debit balance of profit and loss account etc. Intangible assets, if any, like goodwill, patents and copy rights are taken at the amount at which they can be realised. The formula of this ratio is as follows :

$$\text{Proprietary Ratio} = \frac{\text{Proprietors' Funds}}{\text{Total Assets}}$$

Taking the information from Illustration 3, the Proprietary Ratio can be calculated as follows :

| Proprietary Funds | Rs. | Total Assets | Rs. |
|--------------------------|-----------------|---------------------|-----------------|
| Equity Capital | 1,50,000 | Land and Building | 1,20,000 |
| 8% Preference Capital | 60,000 | Plant and Machinery | 2,00,000 |
| Reserves and Surpluses | 40,000 | Debtors | 1,10,000 |
| | | Cash and Bank | 35,000 |
| | <u>2,50,000</u> | | <u>4,65,000</u> |

$$\begin{aligned} \text{Proprietary Ratio} &= \frac{\text{Proprietors' Funds}}{\text{Total Assets}} \\ &= \frac{2,50,000}{4,65,000} = 53.76\% \end{aligned}$$

There is no definite norm for this ratio. Some financial experts hold the view that proprietors' funds should be from 67% to 75% and outsiders' funds should be from 25% to 33% of the total assets. **The higher the ratio, the lesser would be the reliance on outsiders' funds.** A high ratio implies that the firm is not using outsiders' funds as much as would maximise the rate of return on the proprietors' funds. For instance, if a firm earns 20% return on borrowed funds and the rate of interest on such fund is 10% the proprietors would be able to gain to the extent of 10% on the outsiders' funds. This increases the earning of the shareholders.

iii) Capital Gearing Ratio

This ratio establishes the relationship between equity share capital on one hand and fixed interest and fixed dividend bearing funds on the other. It does not take current liabilities into account. **The purpose of this ratio is to arrive at a proper mix of equity capital and the source of funds bearing fixed interest and fixed dividend.**

For the calculation of this ratio, we require the value of (i) equity share capital including reserve and surpluses, and (ii) preference share capital and the sources bearing fixed rate of interest like debentures, public deposits, long-term loans, etc. The following formula is used to compute this ratio :

$$\text{Capital Gearing Ratio} = \frac{\text{Equity Capital including Reserves and Surplus}}{\text{Fixed Dividend and Interest bearing securities}}$$

Illustration 9

The following are the particulars extracted from the Balance Sheet of XYZ Ltd. as on 31.03.2005. Calculate Capital Gearing Ratio.

| | Rs. |
|-----------------------------|----------|
| Equity Share Capital | 1,00,000 |
| 9% Preference Share Capital | 60,000 |
| Reserves and Surpluses | 20,000 |
| Long-term Loans | 1,20,000 |

Solutio

$$\begin{aligned}
 \text{Capital Gearing Ratio} &= \frac{\text{Equity Capital}}{\text{Fixed dividend and interest bearing securities}} \\
 &= \frac{\text{Equity Share Capital} + \text{Reserves and Surpluses}}{\text{9\% Preference Share Capital} + \text{Long-term loans.}} \\
 &= \frac{\text{Rs. 1,00,000} + \text{Rs. 20,000}}{\text{Rs. 60,000} + \text{Rs. 1,20,000}} = \frac{\text{Rs. 1,20,000}}{\text{Rs. 1,80,000}} \\
 &= 0.67 : 1
 \end{aligned}$$

A firm is said to be highly geared when the sum of preference capital and all other fixed interest bearing securities is proportionately more than the equity capital. On the other hand, a firm is said to be **lowly geared** when the equity capital is relatively more than the sum of preference capital and all other fixed interest bearing securities.

The norm suggested for this ratio is 2:1. However, the significance of this ratio largely depends on the nature of business, return on investment and interest payable to outsiders.

Illustration 10

From the following particulars compute leverage ratios :

**Balance Sheet of Raja Ltd.
as on March 31, 2005**

| Liabilities | Rs. | Assets | Rs. |
|-----------------------------|----------|---------------------|----------|
| Equity Share Capital | 40,000 | Land | 22,000 |
| 8% Preference Share Capital | 20,000 | Building | 24,000 |
| Reserves | 10,000 | Plant and Machinery | 38,000 |
| Profit and Loss Account | 5,000 | Furniture | 5,000 |
| 10% Debentures | 45,000 | Sundry Debtors | 22,000 |
| Trade Creditors | 9,000 | Stock | 13,000 |
| Outstanding Expenses | 2,000 | Cash | 14,000 |
| Provision for Taxation | 3,000 | Prepaid expenses | 2,000 |
| Proposed Dividend | 6,000 | | |
| | 1,40,000 | | 1,40,000 |

Solution

Leverage Ratios

$$\begin{aligned}
 1) \text{ Debt Equity Ratio} &= \frac{\text{Long-term Debt}}{\text{Owners' Equity}} \\
 \text{Long-term Debt} &= 10\% \text{ Debentures} \\
 &= \text{Rs. 45,000}
 \end{aligned}$$

$$\begin{aligned}
 \text{Owners' Equity} &= \text{Equity Share Capital} + 8\% \text{ Preference Share Capital} + \text{Reserves} + \text{Profit and Loss Account} \\
 &= 40,000 + 20,000 + 10,000 + 5,000 \\
 &= \text{Rs. } 75,000 \\
 &\quad \underline{45,000}
 \end{aligned}$$

$$\text{Debt Equity Ratio} = \frac{45,000}{75,000} = 0.6:1$$

2) Total Debt Equity Ratio

$$\begin{aligned}
 \text{Total Debt} &= 10\% \text{ Debentures} + \text{Trade Creditors} + \text{Proposed Dividend} \\
 &= 45,000 + 9,000 + 2,000 + 3,000 + 6,000 \\
 &= \text{Rs. } 65,000
 \end{aligned}$$

Equity is Rs. 75,000 as calculated in Debt Equity Ratio. Total Debt to Equity

$$\text{Ratio} = \frac{65,000}{75,000} = 0.87:1$$

3) Proprietary Ratio = $\frac{\text{Proprietor's Funds}}{\text{Total assets}}$

Proprietor's Funds is same as Owner's equity i.e., Rs. 75,000 as calculated in Debt Equity Ratio.

$$\begin{aligned}
 \text{Total Assets} &= \text{Land} + \text{Building} + \text{Plant and Machinery} + \text{Furniture} + \text{Current Assets} \\
 &= 22,000 + 24,000 + 38,000 + 5,000 + 51,000 \\
 &= \text{Rs. } 1,40,000
 \end{aligned}$$

$$\text{Proprietary Ratio} = \frac{75,000}{1,40,000} = 1:1.87$$

4) Capital Gearing Ratio = $\frac{\text{Equity Capital}}{\text{Fixed Interest Bearing Securities}}$

$$\begin{aligned}
 \text{Equity Capital} &= \text{Equity Share Capital} + \text{Reserves} + \text{Profit and Loss Account} \\
 &= 40,000 + 10,000 + 5,000 \\
 &= \text{Rs. } 55,000
 \end{aligned}$$

$$\begin{aligned}
 \text{Fixed Interest bearing securities} &= 10\% \text{ Debentures} + 8\% \text{ Preference Share Capital} \\
 &= 45,000 + 20,000 \\
 &= \text{Rs. } 65,000
 \end{aligned}$$

$$\text{Capital Gearing Ratio} = \frac{55,000}{65,000} = 0.85 :1$$

18.6.6 Coverage Ratios

As mentioned earlier, leverage ratios are computed both from Balance Sheet and Income Statement (Profit and Loss Account). Under Section 5.6.5 of this Unit Long term Solvency Ratio you have studied the ratios computed from Balance Sheet. Let us now discuss the second category of leverage ratios to be calculated from Income Statement. These ratios are called 'Coverage Ratios'.

In order to judge the solvency of the firm, creditors assess the firm's ability to service their claims. In the same manner, preference shareholders evaluate the firm's ability to pay the dividend. These aspects are revealed by the coverage ratios. **Hence, these ratios may be defined as the ratios which measure the ability of the firm to service fixed interest bearing loans and other fixed charge securities.** These ratios are:

- i) Interest Coverage Ratio,
- ii) Dividend Coverage Ratio, and
- iii) Total Coverage Ratio.

i) Interest Coverage Ratio

This ratio is also known as 'times interest earned' ratios. It is used to assess the firm's debt servicing capacity. It establishes the relationship between Net Profit or Earnings before interest and Taxes (EBIT). The purpose of this ratio is to reveal the number of times that the Interest charges are covered by the Net Profit before Interest and Taxes. The formula for this ratio is as follows:

$$\text{Interest Coverage Ratio} = \frac{\text{Net Profit before Interest and Taxes}}{\text{Interest Charges}}$$

Illustration 11

The Net Profit after Interest and Taxes of a firm is Rs. 98,000. The interest and taxes paid during the year were Rs. 16,000 and Rs. 30,000 respectively. Calculate Interest Coverage Ratio.

Solution

$$\text{Interest Coverage Ratio} = \frac{\text{Net Profit before Interest and Taxes (EBIT)}}{\text{Interest Charges}}$$

$$\begin{aligned} \text{EBIT} &= \text{Net Profit after Interest and Taxes} + \text{Taxes} + \text{Interest} \\ &= \text{Rs. } 98,000 + \text{Rs. } 30,000 + \text{Rs. } 16,000 = \text{Rs. } 1,44,000 \end{aligned}$$

$$\text{Interest Coverage Ratio} = \frac{\text{Rs. } 1,44,000}{\text{Rs. } 16,000} = 9 \text{ times or } 9$$

In the above illustration, the interest coverage ratio is 9. It implies that even if the firm's profit falls to 1/9th, the firm will be able to meet its interest charges. Hence, a high ratio is an index of assurance to creditors by the firm. But too high a ratio reflects the conservation attitude of the firm in using debt. On the other hand, a low ratio reflects excessive use of debt. Therefore, a firm should have comfortable coverage ratio to have credit worthiness in the market.

ii) Dividend Coverage Ratio

This ratio indicates the relationship between Net Profit and Preference dividend. Net profit means Net Profit, after Interest and Taxes but before dividend on preference capital is paid. The purpose of this ratio is to show the number of times preference dividend is covered by Net Profit after Interest and Taxes. To compute this ratio. The following formula is used:

$$\text{Dividend Coverage Ratio} = \frac{\text{Net Profit after Interest and Taxes}}{\text{Preference Dividend}}$$

Illustration 12

The Net Profit before Interest and Taxes of a Company was Rs. 2,30,000. The Interest and taxes to be paid are Rs. 15,000 and Rs. 35,000 respectively. The preference dividend declared was 20 per cent on the preference capital of Rs. 2,25,000. Calculate Dividend Coverage Ratio.

Solution

$$\begin{aligned} \text{Dividend Coverage Ratio} &= \frac{\text{Net Profit after Interest and Taxes}}{\text{Preference Dividend}} \\ \text{Net Profit after Interest and Taxes} &= \text{EBIT} - \text{Interest} - \text{Taxes} \\ &= \text{Rs. } 2,30,000 - \text{Rs. } 15,000 - \text{Rs. } 35,000 = \text{Rs. } 1,80,000 \\ \text{Preference Dividend} &= 20\% \text{ on Rs. } 2,25,000 \\ &= \text{Rs. } 2,25,000 \times \frac{20}{100} = \text{Rs. } 45,000 \\ \text{Dividend Coverage Ratio} &= \frac{\text{Rs. } 1,80,000}{\text{Rs. } 45,000} = 4.5 \text{ times} \end{aligned}$$

This ratio reveals the safety margin available to the preference shareholders. The higher the ratio, the greater would be the financial strength of the firm and vice versa.

iii) Total Coverage Ratio

Also known as ‘**Fixed Charge Coverage Ratio**’. This ratio examines the relationship between Net Profit Before Interest and Taxes (EBIT) and Total Fixed Charges. The purpose of this ratio is to show the number of times the total fixed charges are covered by Net Profit before Interest and Taxes.

The components of this ratio are Net Profit Before Interest and Taxes (EBIT) and Total Fixed Charges. The Fixed Charges include interest on loans and debentures, repayment of principle, and preference dividend. It is calculated as follows:

$$\text{Total Coverage Ratio} = \frac{\text{Net Profit before Interest and Taxes}}{\text{Total Fixed Charges}}$$

Illustration 13

The Net Profit Before Interest and Taxes of a firm is Rs. 84,000. The interest to be paid on loans is Rs. 14,000 and preference dividend to be paid is Rs. 7,000. Calculate Total Coverage Ratio.

Solution

$$\begin{aligned} \text{Total Coverage Ratio} &= \frac{\text{Net Profit before Interest and Taxes}}{\text{Total Fixed Charges}} \\ \text{Total Fixed Charges} &= \text{Interest} + \text{Preference dividend} \\ &= \text{Rs. } 14,000 + \text{Rs. } 7,000 = \text{Rs. } 21,000 \\ &= \frac{\text{Rs. } 84,000}{\text{Rs. } 21,000} = 4 \text{ times or } 4 \text{ to } 1. \end{aligned}$$

Check Your Progress C

1) What is leverage ratio? Are leverage ratios and gearing ratios different?

.....

18.7 DUPONT MODEL OF FINANCIAL ANALYSIS

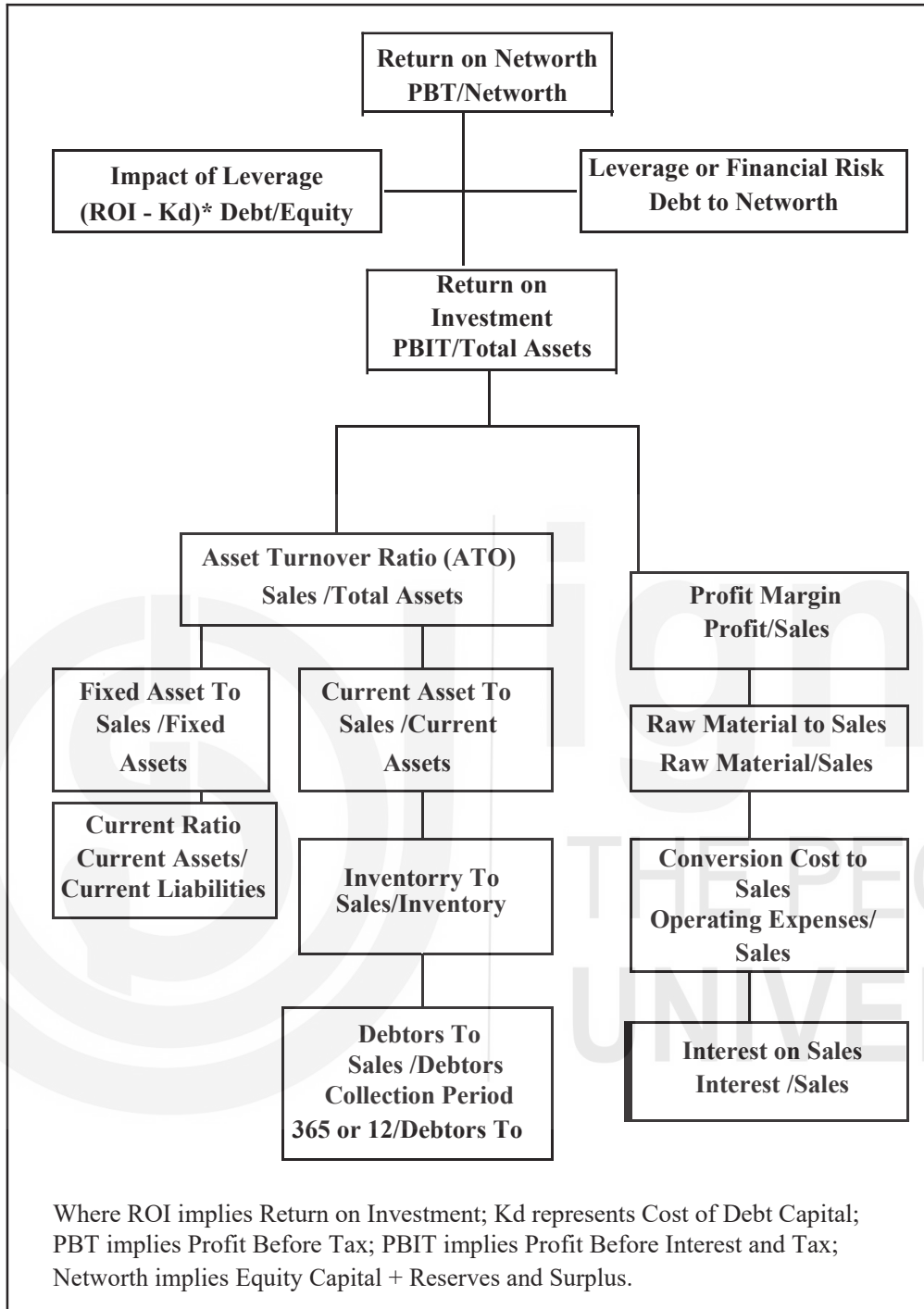
While ratio analysis helps to a great extent in performing the financial statement analysis, most of the time, one would be left in confusion with umpteen ratio calculation in hand. Hence one has to have a guided and structured form of ratio analysis to get a complete picture of the overall performance and risk of the company in a nut shell. This was made possible by the company DuPont. This company had given a structured form of doing financial statement analysis for the first time and from here on most analysts started using the technique.

The DuPont System of Analysis merges the income statement and balance sheet into two summary measures of profitability: Return on Assets (ROA) and Return on Equity (ROE). The system uses three financial ratios to express the ROA and ROE: Operating Profit Margin Ratio (OPM), Asset Turnover Ratio (ATR), and Equity Multiplier (EM).

The DuPont chart analysis has been explained with an example below.

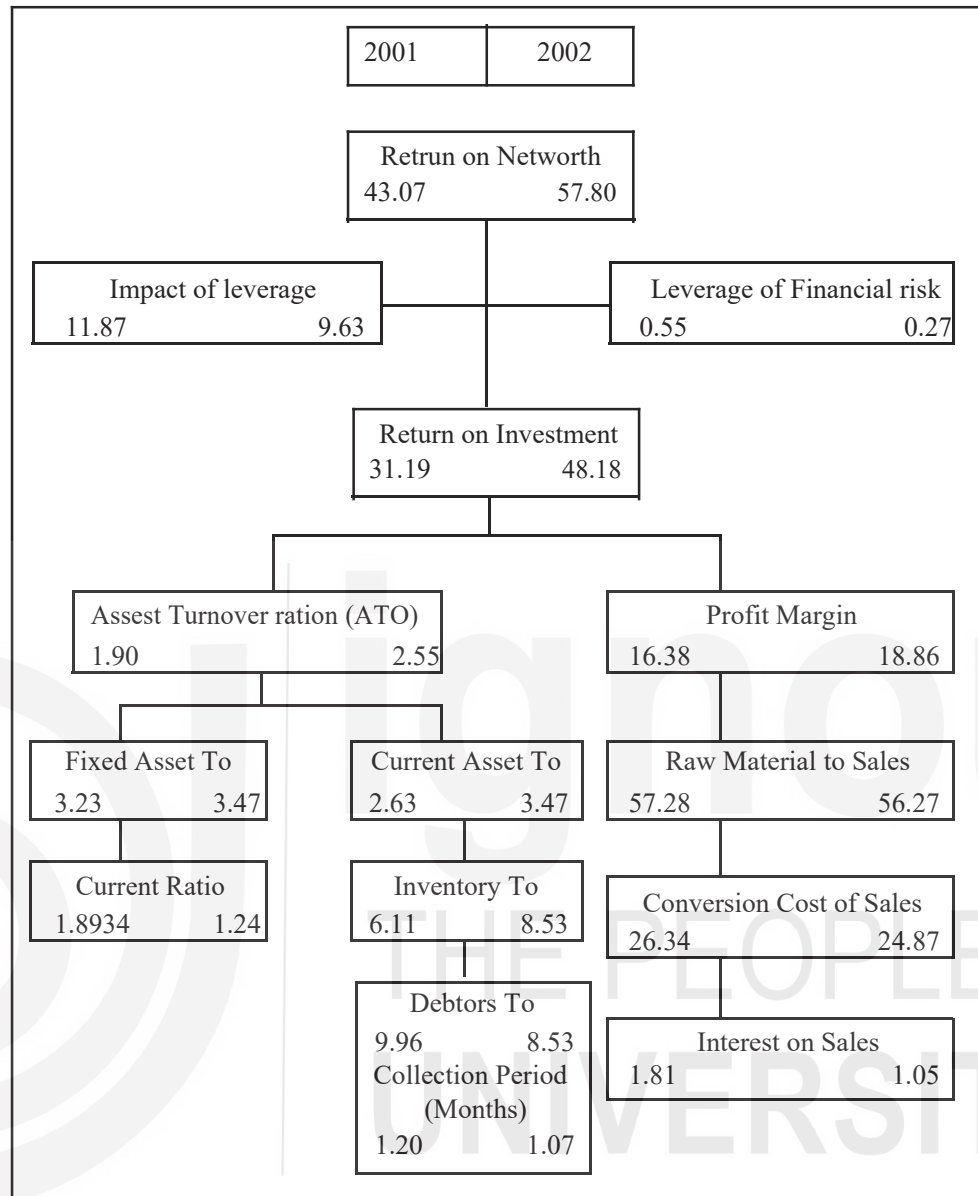
To understand the Dupont analysis better, it's better to condense the income statement and balance sheet data in a required format as given below. The following table gives the balance sheet and income statement of Asian Paints for the year ending March 2001 and March 2002.

| Asian Paints | | |
|--|-------------|-------------|
| Income Statement | 2001 | 2002 |
| Sales | 1215 | 1331 |
| Raw Material | 696 | 749 |
| Operating Expenses | 320 | 331 |
| Profit Before Interest and Tax (PBIT) | 199 | 251 |
| Interest | 22 | 14 |
| Profit Before Tax (PBT) | 177 | 237 |
| Tax | 50 | 66 |
| Profit After Tax (PAT) | 127 | 171 |
| Balance sheet | 2001 | 2002 |
| Net Worth | 411 | 410 |
| Debt | 227 | 111 |
| Total Liabilities | 638 | 521 |
| Net Fixed Assets | 376 | 384 |
| Inventory | 199 | 156 |
| Receivables | 122 | 119 |
| Investments | 44 | 63 |
| Other current assets | 129 | 87 |
| Cash | 12 | 22 |
| Less: Current Liabilities and Provision | 244 | 310 |
| Miscellaneous expenditure | 4 | 6 |
| Total Assets | 638 | 521 |
| Current assets | 462 | 384 |
| Cost of debt | 9.69 | 12.61 |



The above analysis is a good example of time series analysis. It implies comparing the financial statements of the same company over the years. The results indicate that Asian paints had done well during the year 2002. We need to find out the reasons that had contributed to the good performance of the company. The ROA or ROI has increased from 31% to 48%. This has been made possible due to the combined positive effect of profit margin and the asset turnover ratios. The company was able to increase its profit margin from 16% to 18% in 2002. This was made possible by cutting down on raw material costs, conversion costs and interest expenses. Further to this, the company was also able to maintain better efficiency in terms of productivity of assets. This included improvement in overall asset turnover ratio, increase in current and fixed asset turnover ratio and also inventory turnover ratio.

DuPont Chart Financial Statement Analysis of Asian Paints



The debtors turnover ratio has also improved indicating that the company is turning on its receivables more frequently. This is also indicated in the low credit period that is given to its customers. The credit period has reduced from 1.2 to 1.07 during 2002. Besides this, the company also had a positive impact of the leverage impact. The debt equity mix has come down for the period 2002, but still gave a positive impact and hence boosted the returns to the shareholders by 9%. Hence the ROE moved to 57% as against 43% in the year 2001. When one would compare the performance of Asian paints with the industry average, the results would seem more interesting. It's very difficult to see such alarming increasing returns and highly good performance. This company should be performing well above the industry average.

Inter-Firm Comparison (Cross Section Analysis)

While the above analysis enabled you to compare the performance of the firm over the years, most often this may not be alone helpful. You would be also interested in seeing how the firm has performed over its counterparts. In the sense that, you might want to see if Asian paints has performed well over the industry average or whether Asian paints has performed well in comparison with the firms in the same industry.

This sort of analysis becomes most useful when you are doing the industry analysis and when the company you are analysing is not the monopoly in the industry. This would make sense to see why the company has either underperformed or over performed in comparison to the other firms. This sort of analysis helps the analysts forecasts the future market share, profitability and the sustainable growth rate of the company in the presence of competition.

Check Your Progress D

- 1) What is the basic benefit of using the DuPont form of financial statement analysis?
.....
.....
.....
- 2) Take any other manufacturing company’s annual report and perform similar analysis to get a practice of DuPont analysis.
.....
.....
.....
- 3) What are the different ways in which this chart analysis can be used?
.....
.....
.....

18.8 USES OF RATIO ANALYSIS

Ratio analysis is used as a device to analyse and interpret the financial strength of the enterprise. With the help of these ratios Financial statements can be analysed and interpreted more clearly and conclusions can be drawn about the performance of the business. The importance of a ratio analysis is widely recognised on account of its usefulness as outlined below:

- 1) **It conveys inter-relationship between different items of the financial statements:** Since the ratios convey the inter-relationship between different items of the Balance Sheet and Profit and Loss account, they reflect the financial state of affairs and efficiency of operations more clearly than the absolute accounting figures. For example, the net profit earned by a firm may appear to be quite satisfactory if the amount of profit is large, say Rs. 5 Lakh. But, the profit earned can not be regarded good unless it is related to the total investment. If the capital invested is say Rs. 2 crore, the amount of profit expressed as a percentage of investment comes to be only 2.5%. This cannot be said to be satisfactory performance. However, if the capital invested was Rs. 50 Lakh, profit earned would be 10% of the capital investment which may be considered reasonably good.
- 2) **Helps to judge the performance of the business:** Efficiency of performance of management and the overall financial position are revealed by means of financial ratios which may not be otherwise apparent from a set of accounting figures. The index of efficiency reflected in the ratios can be used as the basis of management control. The trend of ratios over a period of time can also be used for planning and forecasting purposes.

- 3) **Facilitates inter-firm and intra-firm comparison:** Ratio analysis provides data for inter and intra firm comparison. With the help of these data comparison of the performance of different firms within the industry as well as the performance of different divisions within the firm can be made and meaningful conclusion can be drawn out of it as to whether the performance of the firm is improving or deteriorating so as to make appropriate investment decisions.
- 4) **To determine credit worthiness of the business:** The credit worthiness of the firm, its earning power, ability to pay interest and debt, prospects of growth, and similar information are revealed by ratio analysis. These are required by creditors, financiers, investors as well as shareholders. They make use of ratio analysis to measure the financial condition and performance of the firm.
- 5) **Helpful to Government:** The financial statement published by the industrial units are used by the government to calculate ratios for determining short-term long-term and overall financial position of the firms. These financial ratios of industrial units may be used by the Government as indicators of overall financial strength of industrial sector.

18.9 LIMITATIONS OF RATIO ANALYSIS

By now you should have mastered the techniques of ratio analysis and its application at the various situations. However, before you start applying the ratios you should be careful enough to be aware of some of its limitations while being used.

- 1) You should be aware that many companies operate in more than one industry take for instance companies like LandT, HLL, PandG etc. which does not operate in only one business segment but in diversified businesses. So care should be taken to ensure that segment level ratios are compared.
- 2) Inflation has distorted balance sheets, in the sense that, the financial statements do not account for inflation which implies that they do not represent the real picture of the scenario. However, given not so high inflation it would not affect the analysis much.
- 3) Seasonal factors can greatly influence ratios. Hence, you should make sure that you control for the seasonal differences. Better would be to perform the ratio analysis on a quarterly basis to get the complete picture for the whole year.
- 4) With the kind of accounting scams breaking every other day, its not unusual to find that Window-dressing could have been done. Though small investors have no control on this and very little chance to get to know about the creative accounting that is taking place one should not however loose sight into any sort of discrepancies in the accounting.
- 5) Its quite possible that different companies within an industry may use different accounting practices which would make it difficult to compare the two companies. In that situation it should be made sure that the changes are accounted for and made sure that it would not affect the analysis.
- 6) It could also be possible that different companies may use different fiscal years. Say for instance one company may use the calendar year as its account closing year while some others may use the fiscal year. In that process care should be taken to compare the respective months or years adjusting for the differences in the accounting year.
- 7) The age of the company may distort ratios. So it should be take into account that the companies you are comparing have some basic similarities. The longer

the company had stayed in business the ratios would be quite different from the new entrants in the same industry. Such factors have to be accounted for.

- 8) However, there is also possibility that innovation and aggressiveness may lead to “bad” ratios. So one should not blindly depend on the numeric ratio figures but try and understand why the company has bad ratios in any particular year before jumping into wrong conclusions.
- 9) There could also be possibility that the benchmark used for analyzing the ratios may not be appropriate. The industry average may not be an appropriate or desirable target ratio. One has to carefully pick the industry averages or the benchmark ratios. As industry averages can be very rough approximations.
- 10) The other downside of the ratio analysis is that ratios should not be interpreted “one-way,” e.g. a higher ratio may only be better up to a point. So one should not assume that this will hold good in future. A company having a Profit margin of 10% in 2003 does not necessarily indicate that it would have atleast 10% profit margin in the year 2004.

18.10 LET US SUM UP

Financial statements represent a summary of the financial information prepared in the required manner for the purpose of use by managers and external stakeholders. Financial reports are prepared basically to communicate to the external shareholders about the financial position of the company that they own.

Different groups of users of financial statements are interested in different aspects of a company’s financial activities. Short-term creditors are interested primarily in the company’s ability to make cash payments in the short term; they focus their attention on operating cash flows and current assets and liabilities. Long-term creditors, on the other hand, are more interested in the company’s long-term ability to pay interest and principal and would not limit their analysis to the company’s ability to make cash payments in the immediate future. The focus of common stockholders can vary from one investor to another, but generally stockholders are interested in the company’s ability to pay dividends and increase the market value of the stock of the company. Each group may focus on different information in the financial statements to meet its unique objectives

An important aspect of financial statement analysis is determining relevant relationships among specific items of information. Companies typically present financial information for more than one time period, which permits users of the information to make comparisons that help them understand changes over time. Financial statements based on absolute value and percentage changes and trend percentages are tools for comparing information from successive time periods. Component percentages and ratios, on the other hand, are tools for establishing relationships and making comparisons within an accounting period. Both types of comparisons are important in understanding an enterprise’s financial position, results of operations, and cash flows.

Assessing the quality of information is an important aspect of financial statement analysis. Enterprises have significant latitude in the selection of financial reporting methods within generally accepted accounting principles. Assessing the quality of a company’s earnings, assets, and working capital is done by evaluating the accounting methods selected for use in preparing financial statements. Management’s choice of accounting principles and methods that are in the best long-term interests of the company, even though they may currently result in lower net income or lower total assets or working capital, leads to a conclusion of high quality in reported accounting information.

Financial accounting information is most useful if viewed in comparison with other relevant information. Net income is an important measure of the financial success of an enterprise. To make the amount of net income even more useful than if it were viewed simply in isolation, it is often compared with the sales from which net income results, the assets used to generate the income, and the amount of stockholders' equity invested by owners to earn the net income. Hence Ratio analysis is used as a major tool.

Ratios are mathematical calculations that compare one financial statement item with another financial statement item. The two items may come from the same financial statement, such as the current ratio, which compares the amount of current assets with the amount of current liabilities, both of which appear in the statement of financial position (balance sheet). On the other hand, the items may come from two different financial statements, such as the return on stockholders' equity, which compares net income from the income statement with the amount of stockholders' equity from the statement of financial position (balance sheet). Accountants and financial analysts have developed many ratios that place information from a company's financial statements in a context to permit better understanding to support decision making.

Often ratio analysis is performed in a more structured form called the Dupont model of analysis. This helps the investors a better picture of the analysis and also more meaningful and holistic picture of the financial position of the companies.

18.11 KEY WORDS

Accounting Ratio : Ratio of accounting figures presented in financial statements.

Common Size Balance Sheet : Statement of assets and liabilities showing each item as a ratio (percentage) of the aggregate value of assets/liabilities.

Common Size Income Statement : Statement of income and expenditure showing each item as a ratio (percentage) of net sales.

Comparative Balance Sheet : Statement presenting changes in the value of assets, liabilities and capital investment between two Balance Sheet dates.

Comparative Income Statement : Statement presenting changes in income and expenditure over successive years.

Capital Employed : Long-term funds including owners' capital and borrowed capital.

Capital Structure : Financial mix plan of debt and equity.

Financial Analysis : Process of examining the financial position and operating performance with the help of information provided by the financial statement.

Financial Reporting : Communicating information based on financial data in the form of reports.

Financial Ratios : Ratios indicating financial soundness of the firm. It is also called leverage ratio.

Financial Statements : Annual statements of assets and liabilities (Balance sheet) of income and expenditure (Profit and Loss account).

Intra-firm Comparison : Comparing financial data of one firm with the corresponding data of comparable firm(s).

Intra-firm Comparison : Comparison of the financial data relating to one period with those of previous periods in respect of the same firm.

Owners' Equity : Shareholders funds including share capital (both preference and equity) P & L A/c balance, reserves **minus** fictitious assets. It is also called net **worth**.

Ratio : Measure of one value or number in relation to another.

Ratio Analysis : Computing, determining and explaining the relationship between the component items of financial statements in terms of ratios.

Leverage Ratios : Ratios that evaluate the long-term solvency of a firm. These are also called solvency ratios.

Liquidity Ratios : Ratios that assess the capacity of a firm to meet its short-term liabilities.

18.12 TERMINAL QUESTIONS

- 1) From the following balance sheet of XYZ Co. Ltd. calculate Return on Capital employed.

Balance sheet as on 31.03.2005

| Liabilities | Rs. | Assets | Rs. |
|------------------------|------------------|------------------|------------------|
| Share Capital | 6,00,000 | Fixed assets | 9,00,000 |
| Reserves | 2,00,000 | Current assets | 3,00,000 |
| 10% Debentures | 2,00,000 | Investment in | |
| Provision for Taxation | 2,00,000 | Govt. securities | 2,00,000 |
| Profit and Loss A/c | 2,00,000 | | |
| | <u>14,00,000</u> | | <u>14,00,000</u> |

Profit and loss for the period ended 31.03.2005

| | Rs. | | Rs. |
|---------------------------|------------------|---------------------------|------------------|
| To Cost of goods sold | 6,00,000 | By Sales | 10,00,000 |
| To Interest on Debentures | 20,000 | By Income from investment | 20,000 |
| To Provision for Taxation | 2,00,000 | | |
| To Net profit after Tax | 2,00,000 | | |
| | <u>10,20,000</u> | | <u>10,20,000</u> |

(Ans.: Operating profit : Rs. 4,00,000 Capital employed : Rs. 10,00,000 ROC = 40%).

- 2) Following is the Profit and Loss Account of Shriram Company Ltd., for the year ending March 31, 2005 and the Balance Sheet as on that date. You are required to compute liquidity, long-term solvency, turnover ratios, and profitability ratios both in relation to capital and sales.

Profit and Loss Account of Shriram Company Ltd. for the year ending March 31, 2005

| | Rs. | | Rs. |
|---------------------|------------------|------------------|------------------|
| To Opening Stock | 90,000 | By Sales | 12,60,000 |
| To Purchases | 9,00,000 | By Closing Stock | 1,50,000 |
| To Direct Expenses | 20,000 | | |
| To Gross Profit c/d | 4,00,000 | | |
| | <u>14,10,000</u> | | <u>14,10,000</u> |

| | | | |
|---------------------------------|---------------|---------------------|-----------------|
| To Operating Expenses: | | By Gross Profit b/d | 4,00,000 |
| Administrative Expenses | 40,000 | | |
| Selling & Distribution Expenses | <u>60,000</u> | 1,00,000 | |
| To Non-operating Expenses: | | | |
| Loss on the sale of shares | 10,000 | | |
| Interest | <u>30,000</u> | 40,000 | |
| To Provision for Taxation | | 40,000 | |
| To Net Profit | | <u>2,20,000</u> | |
| | | <u>4,00,000</u> | <u>4,00,000</u> |

Balance Sheet of Shriram Company Ltd. as on March 31, 2005

| Liabilities | Rs. | Assets | Rs. |
|--|------------------|-------------------|------------------|
| Equity Share Capital (60,000 shares of Rs. 10 each) | 6,00,000 | Land & Buildings | 4,00,000 |
| Reserves & Surplus | 50,000 | Plant & Machinery | 3,20,000 |
| Profit & Loss Account | 1,60,000 | Stock | 1,50,000 |
| 10% Debentures | 3,00,000 | Cash at bank | 1,20,000 |
| Creditors | 1,80,000 | Debtors | 3,00,000 |
| | <u>12,90,000</u> | | <u>12,90,000</u> |

(Ans.: Current ratio = 3.17 : 1, Quick ratio = 2.33:1

Gross profit ratio = 31.75%, Net profit ratio = 17.46%

Operating profit ratio = 23.89%

Operating ratio = 76.19%

Return on capital employed = 27%

Return on Investment = 19.82%

Return on shareholder's equity = 27.16%

Earning per share = 3.67)

18.13 FURTHER READINGS

Daniel L. Jensen, “*Advanced Accounting*” (McGraw-Hill College Publishing, 1997).

Eric Press, “*Analyzing Financial Statements*” (Lebahar-Friedman, 1999).

Foster (2002), “*Financial Statement Analysis*”.

Horngren et al. (2002), *Financial Accounting Pearson’s Ed.*

Peter Atrill and Eddie McLaney, “*Accounting and Finance for Non-Specialists*” (Prentice Hall, 1997).

Wild, Bernstein and Subramanyam (7th Ed.), *Financial Statement Analysis*, Irwin McGrawhill.



ignou
THE PEOPLE'S
UNIVERSITY

UNIT 19 STATEMENT OF CHANGES IN FINANCIAL POSITION

Structure

- 19.0 Objectives
- 19.1 Introduction
- 19.2 Need for Changes in Financial Position
- 19.3 Statement of Changes in Financial Position---Meaning
- 19.4 Concept of Funds
- 19.5 Flow of Funds
- 19.6 Sources and Uses of Funds
- 19.7 Let Us Sum Up
- 19.8 Key Words
- 19.9 Terminal Questions
- 19.10 Further Readings

19.0 OBJECTIVES

The objectives of this unit are to:

- ✎ explain need for funds flow statement for investors and other stockholders in addition to balance sheet and profit and loss account;
- ✎ compare the differences between funds flow statement with other financial statements;
- ✎ familiar with the concept of funds;
- ✎ explain the methodology for preparation of funds flow statement under different methods; and
- ✎ explain how funds flow statement can be used in real life for different decision making.

19.1 INTRODUCTION

As a student of accounting, you are aware of basic difference between Profit and Loss Account and Balance Sheet on time scale. While Profit and Loss Account is prepared for a period, Balance Sheet presents financial position at a particular point of time. Is there any way for users to convert the Balance Sheet into a flow statement? If the answer is yes, what is the use of such conversion? Let us take the second issue to understand the concept. Balance Sheet shows the sources of capital or funds for the assets that the firm holds or how the firm spent its capital or funds on various assets. This is an important useful information to the users of financial statements but it fails to tell how much of assets have been added during the period and how such additional investments are funded. In other words, the users would like to know whether the firm is growing or not and if it is growing, what is the source of capital or funds. Users would also like to know whether there is any change in the pattern of funding over the years. Therefore, there is a need for converting the point statement into flow statement. So, the next question is how to convert the Balance Sheet into Funds Flow Statement. There are different levels at which one can achieve the translation and the easiest and crude way is to find the differences in the values of each Balance Sheet item.

To illustrate the idea of funds flow statement and also to get a quick idea on the concept, let us have a look on the summary of Balance Sheet items of Ranbaxy Laboratories Ltd., which is one of the largest players in the pharmaceutical industry in India. The details are as follows:

Summary of Balance Sheet values of Ranbaxy Laboratories Ltd.

(Rs. in Crores)

| Year | 2002 | 2001 | 2000 | 1999 | 1998 |
|-------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Share Capital | 185.45 | 115.90 | 115.90 | 115.90 | 115.90 |
| Reserves & Surplus | 1686.06 | 1486.30 | 1466.76 | 1382.04 | 1284.94 |
| Loans | 6.90 | 125.98 | 255.81 | 322.88 | 424.93 |
| Current Liabilities and Provision | 935.37 | 586.67 | 417.98 | 308.71 | 307.49 |
| Total | 2813.78 | 2314.85 | 2256.45 | 2129.53 | 2133.26 |
| Fixed Assets | 675.39 | 613.05 | 644.37 | 631.90 | 613.56 |
| Investments | 337.50 | 342.52 | 290.03 | 282.77 | 332.47 |
| Current Assets, Loans & Advances | 1800.89 | 1359.28 | 1322.05 | 1214.86 | 1187.23 |
| Total | 2813.78 | 2314.85 | 2256.45 | 2129.53 | 2133.26 |

The above Balance Sheet values show how the values have changed (increased or decreased) over the years. It also tells how the assets are funded over the years. The following table shows the Balance Sheets values in percentage format.

Summary of Balance Sheet values of Ranbaxy Laboratories Ltd. (in %)

(Rs. in Crores)

| Year | 2002 | 2001 | 2000 | 1999 | 1998 |
|-----------------------------------|-------------|-------------|-------------|-------------|-------------|
| Share Capital | 7% | 5% | 5% | 5% | 5% |
| Reserves & Surplus | 60% | 64% | 65% | 65% | 60% |
| Loans | 0% | 5% | 11% | 15% | 20% |
| Current Liabilities and Provision | 33% | 25% | 19% | 14% | 14% |
| Total | 100% | 100% | 100% | 100% | 100% |
| Fixed Assets | 24% | 26% | 29% | 30% | 29% |
| Investments | 12% | 15% | 13% | 13% | 16% |
| Current Assets, Loans & Advances | 64% | 59% | 59% | 57% | 56% |
| Total | 100% | 100% | 100% | 100% | 100% |

The picture is somewhat clear now but not complete. Ranbaxy, which used to have about 20% of total funds through loans is now not raising any debt to fund its assets. The company has turned almost zero-debt company over the period of 5 years. This decline is suitably compensated through an increase in current liabilities. There is also an increase in current assets values over the years. While these details are useful, the percentage analysis fails to show any movement of funds in absolute value. Let us now simply take the difference of the values and see how the picture looks over the years.

Summary of Changes in Balance Sheet values of Ranbaxy Laboratories Ltd.

(Rs. in Crores)

| Year | 2002 | 2001 | 2000 | 1999 |
|-----------------------------------|---------------|--------------|---------------|-----------------|
| Share Capital | 69.55 | 0.00 | 0.00 | 0.00 |
| Reserves & Surplus | 199.76 | 19.54 | 84.72 | 97.10 |
| Loans | ---119.08 | ---129.83 | ---67.07 | ---102.05 |
| Current Liabilities and Provision | 348.70 | 168.69 | 109.27 | 1.22 |
| Total | 498.93 | 58.40 | 126.92 | -3.73 |
| Fixed Assets | 62.34 | --- 31.32 | 12.47 | 18.34 |
| Investments | --5.02 | 52.49 | 7.26 | ---49.70 |
| Current Assets, Loans & Advances | 441.61 | 37.23 | 107.19 | 27.63 |
| Total | 498.93 | 58.40 | 126.92 | --- 3.73 |

The above table gives better picture. Over the years, Ranbaxy invested heavily on current assets, loans and advances. The source of funds to meet this huge increase in investments is primarily current liabilities and also from funds from operation. The company reduced its loans value over a period of time by repaying loans. Once you have this information, it is possible for you to examine how Ranbaxy is comparable with other companies in the industries. For instance, if you find some of the pharmaceutical companies are expanding faster than Ranbaxy, then as an investor, you will worry about the future of the company. It is possible to perform such analysis using funds flow statement. The funds flow statement, which we have prepared above is bit crude and we need to make some adjustments to prepare a good funds flow statement. This will dealt with in subsequent sections.

Activity 1

- 1) Refer Ranbaxy Laboratories Ltd. Balance Sheet. Prepare a statement to show how the funds have moved from the year 1998 to 2002. Ignore the funds flow of in between years i.e., assume Ranbaxy has not prepared any balance sheet for in between years.

.....

- 2) List down major sources and uses of funds in descending order.

.....

- 3) Draw a broad conclusions on the flow of funds during this period.

.....

19.2 NEED FOR CHANGES IN FINANCIAL POSITION

Accounting Standard (Revised) - 3 has made funds flow statement redundant and prescribed cash flow statement. Despite that why do we feel funds flow statement is useful to users of accounts? Funds flow statement provides some further insight into the Balance Sheet and particularly shows how the firm is able to get money to take up several activities. It is possible to know what is the kind of funds mix that the firm is using particularly a comparison of internal and external funds. For instance, Ranbaxy heavily uses internal funds and depend little on external funds. In contrast, Aurobindo Pharma Ltd. another major player in the pharmaceutical industry uses debt substantially for the funding its activities.

Summary of Changes in Balance Sheet values of Aurobindo Pharma Ltd.

(Rs. in Crore)

| | 2002-03 | 2001-03 | 2000-03 | 1999-03 |
|--------------------|---------------|---------------|---------------|--------------|
| Share Capital | 0.67 | 1.00 | 0.55 | 13.23 |
| Reserves & Surplus | 84.27 | 55.71 | 94.43 | 41.45 |
| Debt | 110.10 | 84.99 | 29.95 | 40.10 |
| Total | 195.04 | 141.70 | 124.93 | 94.78 |

Funds flow statement can also be used to know how the resources raised are used. For instance, we observed Ranbaxy spends most of the resources for increasing current assets. Aurobindo Pharma also uses substantial part of the funds for increasing current assets and it looks like that there is something which is driving for the industry to build up more current assets. A further analysis shows that a significant part of the currents assets are funding of receivables without corresponding increase in sales. Though balance sheet also highlights an increase in receivables values, it is not apparent that substantial part of the funds raised during the period go for funding of such receivables.

It is possible to examine how healthy the financial policies of firms. For instance, many firms would like to avoid using short-term capital for long-term purposes. It is possible to identify whether firms in which you are interested use funds in a sub-optimal way.

Activity 2

- 1) Pick up annual report of two or three companies belonging to software or any other industry. Compare the changes in balance sheet values for two years and write down the values here.
.....
.....
.....
- 2) Write a brief on the sources of funds and where they are used. Also, compare these figures between the companies and write down your views.
.....
.....
.....
- 3) Do you find all the companies are behaving in a same way? Mostly it will not be and if so, why do you feel companies follow different strategies in raising funds and using the same in different assets?
.....
.....
.....

19.3 STATEMENT OF CHANGES IN FINANCIAL POSITION ---- MEANING

Statement of changes in financial position is a statement which outlines the causes of a change in the financial position of a company during an accounting period. These causes are reflected in the movement of funds viz., inflows and outflows of funds during the period. Therefore, it is called Funds Flow Statement in which the inflows are shown as sources of funds and the out flows are shown as application or uses of funds. The difference between the two (inflows and outflows) indicates the net changes (increase or decrease) in the position of funds during the accounting period.

19.4 CONCEPT OF FUNDS

The Balance Sheet gives a ‘snapshot’ view at a point in time for the sources from which a firm has acquired its funds and the uses, which the firm has made of these funds. The flow statement explains the changes that took place in the Balance Sheet account. Firms get funds from various sources. Broadly, we classify the sources of funds into two categories namely, long-term funds and short-term funds, Sources of long-term funds include equity share capital, funds provided by operation, term loan, etc. Source of short-term funds consists of supplier credit and any short-term borrowing. The term fund is broader compared to the term cash. For instance, when a firm sells goods on credit, there is no cash flow and cash flow statement ignores such transactions. On the other hand, funds flow statement treats this source of funds from operating activities and treat the increased accounts receivables as application of funds for working capital purpose. On the other hand, if the firm collects receivables of last year, it appears in cash flow statement, whereas it has no impact in funds flow statement because there is no change in

working capital. That is, while receivables decline its value, cash increases to that extent and flow of funds is restricted within the working capital group. The concept of funds simply denotes whether there is any change in Balance Sheet item at aggregate level and such changes lead to an increase in fund or decrease in fund. The following are certain activities, which will not affect fund flow statement and any effect that arises out of these activities will be restricted to working capital statement.

- a) Collection of bills receivable.
- b) Payment of bills payable.
- c) Purchase of Materials for cash or on credit basis.
- d) Sale of goods on cash or credit basis (except for the profit or loss component).

The above items normally affect cash flow statement [cash part of item (c) and (d)]. There are several items, which affects funds flow and not cash flow statement. A few of them are:

- a) Sale or purchase of goods on credit basis --- it affects funds from operation and to a minor extent working capital statement.
- b) Purchase of fixed assets on credit basis.
- c) Expenses incurred but not paid.
- d) Income accrued but not received.
- e) Changes in value of closing stock.

There are several items, which affect both funds flow and cash flow statement. A few of them are:

- a) Fresh Equity
- b) Fresh loan or repayment of loan
- c) Purchase of fixed assets by paying cash
- d) Cash sales and purchases
- e) Cash Expenses

From the above discussion, it is clear that 'funds' in funds flow statement means changes in equity, liability or working capital. It includes both cash and non-cash items. In this unit, for the purpose of funds flow statement, we use the net working capital concept which refers to excess of current assets over current liabilities.

Activity 4

1) A machine costing Rs. 70,000 (book value Rs. 40,000) was sold for Rs. 25,000. What is the impact of this transaction on funds flow statement?

.....
.....
.....

2) The book value of Inventory was Rs. 8 lakhs and market value is Rs. 6.50 lakhs. What is the effect of change in market value on funds flow statement?

.....
.....
.....

- 3) Finished goods worth of Rs. 3 lakhs was sold for Rs. 3.50 lakhs on cash. What is the impact of this transaction on funds flow statement? Suppose if the above sale is on credit basis, will it have different impact? Explain.

.....
.....
.....

- 4) What do you understand the term 'fund' in the context of funds flow statement?

.....
.....
.....

- 5) Categorise the following items under current and non-current assets and liabilities.

- i) Bank Balance
- ii) Goodwill
- iii) Income received in advance
- iv) Share premium

19.5 FLOW OF FUNDS

Flow of funds means 'change in fund position' or 'change in net working capital'. Whenever there is a change in the funds, it is presumed that flow of funds has taken place. The flow of funds can be in the form of an inflow or an outflow. An inflow of funds increases the working capital and an outflow of funds decreases the working capital.

Flow of funds will takes place if a transaction involves a change in a current item and change in a non-current item. A non-current item means either a non-current asset (Fixed asset) or a non-current liability (long-term liability). There will be no change in net working capital (flow of funds) if a transaction involves : (i) only the current items or (ii) only the non-current items. In other words, a transaction, involving a fixed asset/ fixed liability on the one hand and a current asset/current liability on the other, will alone result in flow of funds. Let us understand these rules by taking up some examples.

- 1) **Transactions involving items from both current and non-current categories which result in flow of funds:**

- i) **Purchased machinery for Rs. 30,000 :** This transaction increases machinery (a non-current asset) and reduces cash (a current assets). The reduction in cash reduces current assets without any corresponding reduction in current liabilities. As a results, the net working capital gets reduced.
- ii) **Shares issued for Rs. 2,00,000 :** In this case, a non-current liability (i.e., share capital) has increased and a current asset (i.e., cash) has increased. Thus the current asset has increased without any corresponding change in current liabilities. As a result, net working capital gets increased.

- 2) **Transactions affecting items in the current category only which do not result in flow of funds:**
- i) **Cash collected from debtors Rs. 4000 :** This transaction results in an increase in cash (a current asset) and a decrease in debtors (a current asset, again) by the same amount. Thus the total current assets remain the same and there will be no change in the net working capital.
 - ii) **Acceptance given to creditors Rs. 3,000 :** Both creditors and bills payable are current liabilities. By giving acceptance to creditors, the amount of creditors decreases and that of bills payable increases by the same amount. Since this transaction does not affect the total amount of current assets as also the total amount of current liabilities, the difference between current assets and current liabilities remains unchanged. Thus, there is no flow of funds and no change in the net working capital.
 - iii) **Paid creditors Rs. 1,000 :** By paying the creditors cash (a current asset) is reduced and the amount of creditors (a current liability) is also reduced by the same amount. Therefore, the difference between the current assets and current liabilities will be the same as it was before. So there will be no flow of funds, which means no change in the net working capital.
- 3) **Transactions affecting items in the non-current category only which do not result in flow of funds:**
- i) **Land exchanged for machinery Rs. 10,00,000 :** Both land and machinery are non-current assets. By exchanging land for machinery, the book value of land is reduced and that of machinery is increased, but the total of non-current assets remains unaffected. Further, it does not effect any change in the current assets or the current liabilities. Hence, there will be no change in the net working capital position.
 - ii) **Preference shares are converted into equity shares Rs. 10,00,000 :** Both preference share capital and equity share capital are non-current items. As a result of conversion, the equity share capital stands increased and the preference share capital gets reduced by the same amount. As no current item is affected, there will be no change in net working capital.
 - iii) **Purchased land worth Rs. 50,000 and issued shares in consideration thereof :** This transaction increases the debit balance of the land account and credit balance of share capital account Both land and share capital are non-current items. Since no current items is involved, the net working capital remains unaffected.

We can summarise the above analysis as follows :

- 1) There will be flow of funds if transaction involves:
 - i) Current assets and non-current liabilities:
 - ii) Current assets and non-current assets.
 - iii) Current liabilities and non-current assets.
- 2) There will be no flow of funds if a transaction involves :
 - i) Non-current assets and non-current liabilities.
 - ii) Current assets and current liabilities.

For easy reference, the list of non-current and current items is given below :

| Non Current Liabilities | Non-Current Assets |
|--------------------------------|----------------------------------|
| Equity Share capital | Goodwill |
| Preference Share Capital | Plant and Machinery |
| Debentures | Furniture |
| Share Premium | Trade Marks, Patnets, Copyrights |
| Forfeited Shares | Land and Buildings |
| Current Liabilities | Current Assets |
| Bank Overdraft | Stock |
| Bills Payable | Debtors |
| Creditors | Bills Receivable |
| Outstanding Expenses | Income Outstanding |
| Incomes received in advance | Cash at bank |
| | Cash in hand |

In order to know whether a transaction brings a change in working capital, it is better to journalise the transaction and then classify the accounts of the transaction to which account it belongs. If both the accounts of the transaction belong to current category or non-current category, there will be no change in working capital. On the otherhand if one account of transaction belongs to current item and the other to non-current item, then there will be a change in working capital.

19.6 SOURCES AND USES OF FUNDS

You have learnt that, funds represent that portion of current assets which is not financed by current liabilities but is financed from the long-term/non-current sources. You have also learnt that as and when a change takes place in current items resulting from a change in non-current items the net working capital will be affected. The increase and decrease in only non-current (long-term) assets and liabilities alone will act as a source or an application (use) of funds. For the preparation of funds flow statement it is necessary to find out the sources and application of funds. Let us now identify the sources and application of funds.

Sources of Funds : The sources of funds can be classified as external sources and internal sources. **External sources of funds refer** to sources of funds from outside the business. These are : (a) raising additional capital, (b) increasing long-term borrowings, and (c) sale of fixed assets and long term investments. **Internal sources** consist of funds that are generated internally by the organisation. Every profitable sale brings in funds to the extent of the excess of sales revenue over cost of goods sold. Such profits, called funds from operation, are also an important internal sources of funds.

Application of funds : It may be noted that all funds raised through long term source are not necessarily applied for financing the increase in net working capital. A substantial part of this amount may be utilized for purchasing the fixed assets, redemption of debentures or preference shares, payment of dividends and meeting losses from operations, if any. In fact whatever is left the application of funds for these purposes, will be the amount used for financing the increase in working capital. Uses of funds thus are: (i) purchase of fixed assets or long term investments, (ii) redemption of debentures and preference shares, (iii) repayment of long term loans, (iv) payment of dividends (v) meeting losses from operations (net loss), and (vi) financing the increase in working capital.

19.7 LET US SUM UP

The statement of changes of financial position explains the differences in various assets and liabilities items of balance sheet between the beginning of the year and end of the year. It converts balance sheet into a flow statement. An increase in liability side means the organisation has generated funds during the period. There are broadly three sources of funds - funds from operation, funds from other long-term sources like equity, loan, etc. and funds generated from working capital (e.g. increase in payables). There are broadly two uses of funds namely, funds required to buy assets and other long-term need and funds required for current assets (purchase of inventory, funding receivables, etc.). Funds flow statement can be prepared on cash basis or working capital basis. Funds flow on cash basis is similar to cash flow statement and hence there is limited use since all companies are asked to give cash flow statement under AS-3. Funds flow statement on working capital basis throws some insight further on the flow of funds between long-term and short-term needs of organisation.

Funds flow statement is not required under the current Accounting Standards and hence very few companies provide such statement. Further, funds flow statement is not free from window dressing since uses only the two principal financial statements. Many organisations prepare funds flow statement for internal purpose and normally it is compared with budgets to set right deviation from budgets.



19.8 KEY WORDS

Funds: Cash or net working capital.

Flow of funds: Movement or change in the net working capital.

Current Assets : Cash and other assets that are converted into cash or consumed in the production of goods in the normal course of business.

Fund Flow Statement: Statement which shows the sources (inflows) and uses (outflows) of funds between two balance sheet dates.

Funds from Operations: The amount of net profit that acts as a source of fund i.e., profit before charging certain non-cash costs and before crediting items like profit on sale of fixed assets.

Current - liabilities : Liabilities payable within one year.

Gross Working Capital : Total of current assets.

Net Working Capital: Excess of current assets over current liabilities.

Non-Current Items: Long term asset and long-term liabilities.

Schedule of Changes in Working Capital: Statement which reveals the effect of item wise change in current asset and current liabilities on the net working capital between two balance sheet dates.

Working Capital: That part of the capital which is required for recoming operations of a business as distinguished from capital invested in fixed assets.

19.9 TERMINAL QUESTIONS

- 1) Compared to two principal financial statements namely, Profit and Loss Account and Balance Sheet, what is additional insight you get from funds flow statement?
- 2) “Funds flow statement is only supplementary to P&L Account and Balance Sheet; it can’t be substitute to P&L Account and Balance Sheet” - Do you agree to this statement? Explain your views.
- 3) Discuss a few basic differences between “cash” concept of funds flow statement and “working capital” concept of funds flow statement.
- 4) A firm is found to have negative changes in working capital. What does it mean? Is it good for the firm in the long-run if the negative change in working capital continues for a long period?

19.10 FURTHER READINGS

Robert N Anthony and James S Reece, *Management Accounting: Text and Cases*,
Richard D. Irwins Inc, Homewood, Illinois.

M C Shukla, T S Grewal and S C Gupta, *Advanced Accounts (Volume II)*,
S.Chand & Company Ltd. New Delhi.



ignou
THE PEOPLE'S
UNIVERSITY

UNIT 20 CASH FLOW ANALYSIS

Structure

- 20.0 Objectives
- 20.1 Introduction
- 20.2 Need for Cash Flow Statement
- 20.3 Cash Flow Statements vs. Other Financial Statements
- 20.4 Preparation of Cash Flow Statement
 - 20.4.1 Sources and Uses of Cash
 - 20.4.2 Ascertaining Cash from Operations
- 20.5 Preparation of Cash Flow Statement
- 20.6 Regulations Relating to Cash Flow Statement
- 20.7 Cash Flow Statement Formats
- 20.8 Cash Flow from Operating Activities
- 20.9 Cash Flow From Investing and Financing Activities
- 20.10 Uses of Cash Flow Analysis
- 20.11 Distinctions between Funds Flow and Cash Flow Analysis
- 20.12 Let Us Sum Up
- 20.13 Key Words
- 20.14 Terminal Questions
- 20.15 Further Readings

20.0 OBJECTIVES

The objectives of this unit are to:

- ✍ explain importance of cash flow statement for investors and other stockholders;
- ✍ compare the differences between cash flow statement with other financial statements;
- ✍ explain regulations relating to preparation of cash flows;
- ✍ familiar with the methodology for preparation of cash flow statement and different components of cash flow statement; and
- ✍ comprehend how cash flow statement can be used in real life for different decision making.

20.1 INTRODUCTION

The statement of cash flows, required by the Accounting Standard-3, is a major development in accounting measurement and disclosure because of its relevance to financial statement users. Cash Flow Statement is reasonably simple and easy to understand. It is also difficult to fudge or manipulate the cash flow numbers and hence often used as a way to test the real profitability of the firm. For instance, if your company approaches a bank for a loan, your company will normally highlight the profitability of your business as your strength. But the bank

manager may not be sure how you arrived at the profit, particularly when we read lot of accounting related scams. Hence, the bank manager would like to examine whether you have actually earned the profit or not. Cash Flow Statement will be useful to examine whether the profits are realised and if so, to what percentage of profit a firm has realised. In other words, a company that shows high level of profit need not be liquid in cash. Suppliers of goods will also be interested to examine the cash flow position of the company before supplying goods on credit. Investor, who have no control on management, will also be interested in examining the cash flow to supplement her/his analysis on profitability of the business.

Activity 1

- 1) Before you read further, can you think about why profit reported in P&L account might be misleading? Can you think about some examples of how profit can be overstated?

.....
.....
.....
.....
.....

- 2) If you have identified some examples, can you think about why companies resort to do such things and also how you can find out if you are an outsider?

.....
.....
.....
.....
.....

20.2 NEED FOR CASH FLOW STATEMENT

The primary objective of the statement of cash flows is to provide information about an entity's cash receipts and cash payments during a period. The net effect of cash flow is provided under different heads namely cash flow from operating, investing and financing activities. It helps users to find answers to the following important questions:

- a) Where did the cash come from during the period?
- b) What was the cash used for during the period?
- c) What was the change in the cash balance during the period?

The AS-3 identifies two important uses of cash flow statement as follows:

- a) A cash flow statement, when used in conjunction with the other financial statements, provides information that enables users to evaluate the changes in net assets of an enterprise, its financial structure (including its liquidity and solvency) and its ability to affect the amounts and timing of cash flows in order to adapt to changing circumstances and opportunities. Cash flow information is useful in assessing the ability of the enterprise to generate cash

and cash equivalents and enables users to develop models to assess and compare the present value of the future cash flows of different enterprises. It also enhances the comparability of the reporting of operating performance by different enterprises because it eliminates the effects of using different accounting treatments for the same transactions and events.

- b) Historical cash flow information is often used as an indicator of the amount, timing and certainty of future cash flows. It is also useful in checking the accuracy of past assessments of future cash flows and in examining the relationship between profitability and net cash flow and the impact of changing prices.



ignou
THE PEOPLE'S
UNIVERSITY

Activity 2

- 1) Pick up annual report of a company and show the Balance Sheet and Profit and Loss account to your non-accounting friends. Ask them how comfortable in reading the two statements and record their observation here.

.....
.....
.....
.....

- 2) Now, show the Cash Flow statements to them and ask them whether they are able to understand anything better about the company. Record their statements here.

.....
.....
.....
.....

- 3) Examine the above two and record your overall assessment whether there is any improvement in their understanding.

.....
.....
.....
.....

20.3 CASH FLOW STATEMENT VS. OTHER FINANCIAL STATEMENTS

The cash flow statement is different from other principal financial statements in many different ways. Financial statements like P&L account and Balance Sheet are prepared using accrual accounting principle. For instance, when a firm sells its products, it is assumed that profit is realised. It is assumed as a going concern, the firm will eventually realise its profits. Similarly, the expenses incurred against the sale are assumed to have incurred or paid irrespective of the fact whether cash is paid or not. Interest expenses are charged against profit though it is an outcome of financing decision. Several non-cash expenses like depreciation are also charged against profit. On the other hand, cash flow statement is prepared on the principle for cash accounting concept. It is simply a summary of cash book classified under three headings namely cash flow from operating, investing and financing activities. In a broad context, the cash flow from operating activities culls out all Profit and Loss Account entries of cash book (like sales, material, wages, etc.,) and summarise the same. The cash flow from investing activities summarises all the assets side entries like purchase of fixed assets, sale of fixed assets, etc., of cash book. Finally, the cash flow from financing activities summarises all the liability side entries like borrowing, repayment, fresh equity, etc. of cash book. The following table shows the Cash Flow Statement of a company, which simply summarises the cash book entries under different headings, which are easily readable.

Cash Flow Statement Under Direct Method

| | | | |
|--|---------|---------|----------------|
| (A) Operating Activities | | | |
| Cash Collection from Sales | | 115716 | |
| Less: Cash Paid for: | | | |
| Raw Materials | (18478) | | |
| Direct Labour | (13452) | | |
| Overhead | (8758) | (40688) | |
| Less: Cash Paid for Non-factory Costs: | | | |
| Salaries and Wages | (14625) | | |
| Other Sales and Administration | (413) | (15038) | |
| Cash Generated from Operation | | | 59990 |
| Add: Interest Earned | | | 390 |
| Net Cash from Operating Activities (X) | | | 60380 |
| (B) Investment Activities | | | |
| Purchase of Plant Assets | | (23000) | |
| Short-term investments | | (12000) | |
| Net Cash Flow from Investing Activities (Y) | | | (35000) |
| (C) Financing Activities | | | |
| Dividends paid | | (25000) | |
| Net Cash Flow from Financing Activities (Z) | | | (25000) |
| (D) Net Change in Cash (X --- Y+Z) | | | |
| | | | 380 |
| Cash at the Beginning of the year | | | 6000 |
| Cash at the End of the Year | | | 6380 |

Profit and Loss account is also equally readable but the problem is it may be confusing too. For example, many companies as a part of expenditure, put an additional entry titled “changes in stocks” or “increase/decrease in stocks” and sometime add and sometime deduct the value from sales. For example, see the next table, where we have reproduced Birla 3M Ltd. Profit and Loss Account for the year ended 31st December, 2001. As an accounting student, you will know that this is nothing but changes in opening and closing stock but a non-accounting reader will get confused. Many readers are not aware of the meaning of depreciation and also “Balance in Profit and Loss Account Brought Forward”. Starting from the year 2001-02, the P&L account has one more confusion for ordinary readers namely “Deferred Tax”. To add further confusion, in the Balance Sheet, it has both Deferred Tax Asset and Deferred Tax Liability. The mismatch between the depreciation value and deferred tax value shown in P&L account and Balance Sheet is further confusion to ordinary readers. As an accounting, you are familiar with all these jargons but it is really a maze for ordinary readers. They will give up after reading couple of pages.

The Balance Sheet is also equally puzzle to investors. Many students and even executives ask us if the company has huge reserves and surplus, does it mean the company has such amount of cash? Many of you after having some much accounting background would still have the doubt. In fact, when we answer such questions that Reserves will not be in the form of cash, then the next question is where is it or where it has gone or when it is not in the form of cash, why is it called ‘Reserves’? These are really genuine doubts to ordinary readers of financial statements. To a great extent, cash flow statement is free of this kind of confusion.

Profit and Loss Account for the Year Ended 31 December, 2001

Cash Flow
Analysis

| | Schedule Number | For the year ended 31.12.2001 | For the year ended 31.12.2000 |
|---|--------------------|-------------------------------------|-------------------------------------|
| Income: | | | |
| Sales | | 2,297,840,701 | 2,078,920,263 |
| Other Income | 13 | 18,576,299 | 10,484,038 |
| | | <u>2,316,417,000</u> | <u>2,089,404,301</u> |
| Expenditure: | | | |
| Finished Goods Purchased (traded) | | 1,065,927,769 | 1,054,428,027 |
| Manufacturing, Administrative and Selling Expenses | | 827,610,543 | 747,207,666 |
| Excise Duty Paid | | 107,210,150 | 99,240,285 |
| Depreciation | | 60,747,768 | 47,550,244 |
| (Increase)/decrease in inventories | | 22,942,022 | (59,994,012) |
| Public issue expenses amortized | | 125,130 | 500,517 |
| | | <u>2,084,563,382</u> | <u>1,888,932,727</u> |
| Profit from Operations | | 231,853,618 | 200,471,574 |
| Profit before tax | | 231,853,618 | 200,471,574 |
| Provision for Income Tax | | 93,900,000 | 92,938,485 |
| Net Profit | | 137,953,618 | 107,533,089 |
| Balance in Profit & Loss (Account brought forward) | | 347,096,664 | 239,563,575 |
| Balance Carried to Balance Sheet | | <u>485,050,282</u> | <u>347,096,664</u> |
| Notes to Accounts | 16 | | |

Activity 3

- 1) Visit some of the web sites of large Indian companies, which have also issued American Depository Receipts (ADR). From the web sites, download the P&L account as per Indian Accounting Standards and also P&L account drawn under US accounting standards (called US GAAP). Compare the two statements and then briefly write your overall observations.

.....

- 2) Why do you feel that the two figures are different? List down some of the dominant reasons.

.....

- 3) Now, you check the cash flow statement reported under two systems and list.

.....
.....
.....

20.4 CASH FLOW STATEMENTS

In the previous unit you have learnt that flow of funds means change in working capital. An inflow of funds increases the working capital. Under cash flow analysis, all movements of cash, rather than the inflow and outflow of working capital would be considered. In other words, cash flow analysis, focuses attention on cash instead of working capital. When the movements of cash (i.e., cash inflow and cash outflow) is depicted in a statement, it is called Cash Flow Statement. Thus, a cash flow statement summarises the causes of changes in cash position of a business between two balance sheet dates. The flow of cash may be inflow or outflow. When cash inflows are more than the cash outflows, there would be an increase in cash balance. On the other hand, if cash outflows are more than the cash inflows, there would be decrease in cash balance. The term cash includes both cash and bank balances.

Availability cash, generally, determines the ability to meet the maturing obligations. If cash is not available and current obligations cannot be met, it may result in technical insolvency. Therefore, it is very essential for a business to maintain adequate cash balance. A proper planning of the cash resources will enable the management to have cash available whenever needed and employ surplus cash, if any, to the most profitable or productive use. For this purpose, we prepare cash flow statement which shows the sources and application during a year and the resultant effect on cash balance.

20.4.1 Sources and Uses of Cash

The change in the cash position is computed by considering ‘Sources’ and ‘Applications’ of cash which are as follows:

Sources of cash

The sources of cash includes:

- 1) Cash from Operations
- 2) Issue of Shares
- 3) Issue of Debentures
- 4) Long term Loans Raised
- 5) Sale of Fixed Assets

Application (uses) of cash

Application of cash includes the following:

- 1) Redumption of Preference Shares
- 2) Redumption of Debentures
- 3) Repayment of Loans
- 4) Purchase of Fixed Assets
- 5) Payment of Dividends
- 6) Payment of Taxes

20.4.2 Ascertaining Cash from Operations

You have learnt that the main purpose of preparing a cash flow statement is to explain the increase/decrease in the cash balance between the two balance sheet dates and that it is prepared on the same pattern as the fund flow statement. Just as the net profit is adjusted to ascertain the amount of funds from operations, the funds from operations are now adjusted to ascertain the cash from operations. For this purpose, you have to look at the changes in current assets and current liabilities that have taken place during the year.

Conversion of 'Funds from Operations' to 'Cash from Operations' is necessary because, under the working capital concept, funds from operations are based on accrual concept of accounting, and total sales (whether credit or cash) and total purchases (whether credit or cash) are recognised as sources and uses of working capital respectively. But under a cash concept of funds only cash sales and receipts from debtors are treated as sources of cash, while cash purchases and payment to creditors are regarded as uses of cash. The same holds good for the other incomes and expenses. Therefore, funds from operations (based on the accrual concept) require conversion into cash from operations (based on cash accounting). For example, assume that a business was started on 1-1-2003 and the sales during the year were Rs. 3,00,000. Also assume that there were no closing debtors. As there are no opening and closing debtors, it must be assumed that the entire amount of Rs. 3,00,000 was realised by way of cash. Now assume that the closing debtors on 31-12-2003 were Rs. 40,000. This would mean that the entire amount of sales were not collected during the year. Since Rs. 40,000 (closing debtors) was still to be realised, the cash from sales would be Rs. 2,60,000 (Rs. 3,00,000 --- Rs. 40,000).

The closing debtors on 31-12-2003 would become opening debtors on 1-1-2004. Assume further that sales during 2004 were Rs. 4,00,000 and the closing debtors on 31-12-2004 were Rs. 50,000. In that case, the cash received from sales during the year 2004 be ascertained as follows:

| | |
|---|------------------------|
| | Rs. |
| Opening Debtors as on 1-1-2004 | 40,000 |
| Add : Sales during the year | <u>4,00,000</u> |
| | 4,40,000 |
| Less: Closing Debtors as on 31-12-2004 | <u>50,000</u> |
| Cash from Sales during the year | <u>3,90,000</u> |

The same result can also be obtained by subtracting the increase in debtors from the sales during the year as shown hereunder.

| | |
|--|------------------------|
| Sales during the year (2004) | 4,00,000 |
| Less: Increase in Debtors during the year (Closing debtors Rs. 50,000 ---- Opening debtors Rs. 40,000) | <u>10,000</u> |
| Cash from sales during the year | <u>3,90,000</u> |

Cash from Operations can be calculated on the basis of the following equation:

Cash from Operations = Net profit + Opening Debtors at the beginning of the year ---- Closing Debtors at the year end

or

= Net Profit + Decrease in Debtors

or

---- Increase in Debtors

Similarly, in the case of credit purchases decrease in the creditors from one year to another year will result in decrease of cash from operations because more cash payments have been made to the creditors which will result in outflow of cash. On the other hand, increase in creditors from one period to another will result in increase of cash from operations as less amount has been paid to the creditors which result in increase of cash balance in the business.

The effect of cash purchases in computing cash from operations can be calculated as follows:

$$\begin{aligned} \text{Cash from operations} &= \text{Net profit} + \text{Increase in Creditors} \\ &\text{or} \\ &\text{--- Decrease in Creditors} \end{aligned}$$

Similar is the case of Opening and Closing Stock. When opening stock is charged to Profit and Loss account it reduces the net profit and when closing stock is credited to Profit and Loss account it increases the net profit without corresponding change in cash from operations. Therefore, the net profit needs for adjustments to arrive at cash from operations as follows:

$$\begin{aligned} \text{Cash from Operations} &= \text{Net Profit} + \text{Opening Stock} \text{ ---- Closing Stock} \\ &\text{or} \\ &= \text{Net Profit} + \text{Decrease in Stock} \\ &\text{or} \\ &\text{---- Increase in Stock} \end{aligned}$$

The effect of outstanding expenses, Incomes received in advance on cash from operations is similar to the effect of Creditors i.e., any increase in these expenses will result in increase in cash from operations and any decrease results in decrease in cash from operations. This is on account of profit from operations calculated after charging all expenses whether paid or outstanding. In case of income received in advance, it is not be taken into account while preparing profit from operations as it relates to the next year. Therefore, the cash from operations will be higher than the actual net profit shown by the Profit and Loss Account. Therefore, it should be added to net profit while calculating cash from operations. Prepaid expenses do not have effect on the net profit for the year but it decreases cash from operations. Prepaid expenses of the current year should be taken as an outflow of cash in the cash flow statement, but the expenses paid in the previous year do not involve outflow cash in the current year but they are charged to the Profit and Loss Account. Therefore, prepaid expenses of the previous year which are related to current year should be added back while calculating cash from operations. Similarly, accrued income will increase the net profit for the year without corresponding increase in cash from operations.

Therefore, the effect of prepaid expenses and accrued income on cash from operations will be shown as follows:

$$\begin{aligned} \text{Cash from operations} &= \text{Net profit} + \text{Decrease in Prepaid Expenses and} \\ &\text{Accrued Incomes} \\ &\text{---- Increase in Prepaid} \\ &\text{Expenses and Accrued Incomes} \end{aligned}$$

From the above discussion it may be summed up as *increase in current assets and decrease in current liability will have the effect of decrease in cash from operations and decrease in current asset and increase in current liability will have the effect of increase in cash from operations.*

Illustration 1

Calculate Cash from Operations from the following information :

Profit and loss account for the year ended 31st March, 2005

| Particulars | Rs. | Particulars | Rs. |
|------------------------------|---------------|-------------------------------|---------------|
| To Purchases | 40,000 | By Sales | 60,000 |
| To Wages | 10,000 | | |
| To Gross Profit c/d | 10,000 | | |
| | <u>60,000</u> | | <u>60,000</u> |
| To Salaries | 2,000 | By Gross Profit b/d | 10,000 |
| To Rent | 2,000 | By Profit on Sale of Building | 10,000 |
| To Depreciation on Plant | 2,000 | | |
| To Loss on Sale of Furniture | 1,000 | | |
| To Goodwill written off | 2,000 | | |
| To Net Profit | 11,000 | | |
| | <u>20,000</u> | | <u>20,000</u> |

Additional information:

| | Balance as on | |
|----------------------|------------------|------------------|
| | 31st March, 2004 | 31st March, 2005 |
| Stock | 20,000 | 24,000 |
| Debtors | 30,000 | 40,000 |
| Creditors | 10,000 | 15,000 |
| Bills receivable | 10,000 | 16,000 |
| Outstanding expenses | 6,000 | 10,000 |
| Bills payable | 8,000 | 4,000 |
| Prepaid expenses | 2,000 | 1,000 |

Calculate Cash from Operations.

Solution

Calculation of Cash from operations

Net Profit as per Profit and Loss account

Rs.
11,000

Add : Non-cash items: (i.e., Items which do not result in outflow of cash)

| | |
|----------------------------------|--------------|
| | Rs. |
| Depreciation on Plant | 2,000 |
| Loss on sale of Furniture | 1,000 |
| Goodwill written off | 2,000 |
| Increase in Creditors | 5,000 |
| Increase in Outstanding expenses | 4,000 |
| Decrease in Prepaid Expenses | <u>1,000</u> |

15,000
26,000

Less: Non-cash items (i.e., items which do not result in inflow of cash):

| | |
|------------------------------|--------------|
| Profit on Sale of Building | 10,000 |
| Increase in Stock | 4,000 |
| Increase in Debtors | 10,000 |
| Increase in Bills receivable | 6,000 |
| Decrease in Bills payable | <u>4,000</u> |

34,000

Outflow of Cash from Operations

(----) 8,000

20.5 PREPARATION OF CASH FLOW STATEMENT

The cash flow statement is similar to fund flow statement. You have learnt in Section 7.4 that, apart from cash from operations, the source and uses of cash are the same as those shown in the fund flow statement. Usually, cash flow statement starts with the opening cash balance followed by the details of sources and uses of cash. The opening balance plus the sources of cash minus the uses of cash should be exactly to the closing balance of cash which is shown as the last item in the cash flow statement. A cash flow statement can be prepared either in Vertical form or an Account form as shown below:

Vertical Form of Cash Flow Statement for the year ending

| | Rs. | Rs. |
|----------------------------------|--|-------|
| Cash Balance on 1.1.20 ..... |  | ..... |
| Add : Sources of Cash | | |
| | Cash from Operations..... | |
| | Issues of shares..... | |
| | Raising of long-term loans..... | |
| | Sale of fixed assets..... | ..... |
| | | |
| Less: Uses of Cash | | |
| | Redemption of redeemable preference shares | |
| | Redemption of debentures..... | |
| | Repayment of long-term loans..... | |
| | Purchase of fixed assets..... | |
| | Payment of tax..... | |
| | Payment of Dividends..... | ..... |
| | | |
| Cash Balance as on 31-12-20..... |  | ..... |

Account Format

The cash flow statement can also be prepared in an account form starting with an opening balance of cash on its debit side and ending with the closing balance of cash on its credit side as shown below:

Account Form of Cash Flow Account for the year ending.....

| | Rs. | | Rs. |
|------------------------------|-------|---------------------------------------|-------|
| To Opening Cash Balance..... | | By Redumption of Preference Shares... | |
| To Cash from Operations..... | | By Redumption of Debentures..... | |
| To Issue of Shares..... | | By Repayment of Long term Loans..... | |
| To Long term Loans..... | | By Purchase of Fixed Assets..... | |
| To Sale of Fixed Assets..... | | By Payment of Tax..... | |
| | | By Payment of Dividends..... | |
| | | By Cash Balance (closing)..... | |
| | | (Balancing figure) | ..... |
| | _____ | | _____ |
| | _____ | | _____ |

20.6 REGULATIONS RELATING TO CASH FLOW STATEMENT

Accounting standards in India are formulated by the Accounting Standards Board (ASB) of the Institute of Chartered Accountants of India (ICAI). Though International Accounting Standard Committee has revised the International Accounting Standard-7 (IAS-7) in 1992 and switched over to cash flow statement, Accounting Standard-3 (AS-3) of ASB, which is equivalent to earlier IAS-7, was not revised till 1997. In 1997, ASB of ICAI revised the AS-3 in line with revised IAS-7 and issued an accounting standard on reporting cash flow information (see AS-3 full text given in <http://www.icai.org>). However, this standard was not been made mandatory immediately in 1997. However, AS-3 was made mandatory for the accounting period starting on or after 1st April 2001 for the following enterprises:

- i) Enterprises whose equity or debt securities are listed on a recognised stock exchange in India, and enterprises that are in the process of issuing equity or debt securities that will be listed on a recognised stock exchange in India as evidenced by the board of directors' resolution in this regard.
- ii) All other commercial, industrial and business reporting enterprises, whose turnover for the accounting period exceeds Rs. 50 crore.

Since ASB of ICAI took a long time for the introduction of cash flow statement, the SEBI had formed a group consisting of representatives of SEBI, the Stock Exchanges, ICAI to frame the norms for incorporating Cash Flow Statement in the Annual Reports of listed companies. The group has recommended cash flow statement to be supplied by listed companies. SEBI, following the recommendation of the group, has instructed the Governing Board of all the Stock Exchanges to amend the Clause 32 of the Listing Agreement as follows:

“The company will supply a copy of the complete and full Balance Sheet, Profit and Loss Account and the Directors Report to each shareholder and upon application to any member of the exchange. The company will also give a Cash Flow Statement along with Balance Sheet and Profit and Loss Account. The Cash Flow Statement will be prepared in accordance with the Annexure attached hereto”.

Cash Flow Statement, as a requirement in the Listing Agreement, has been made effective for the accounts prepared by the companies and listed entities from the financial year 1994-95. Cash Flow Statement, as a requirement of the Listing Agreement, has been made effective for the accounts prepared by the companies listed in stock exchanges from the financial year 1994-95.

Activity 4

- 1) Read carefully the AS-3 given in <http://www.icai.org>. Write in your own words, the objectives, scope and benefit of the Cash Flow Information.

.....

.....

.....

.....

- 2) Download the cash flow statement of a company (visit the web site) for two years and read the statement carefully. Write your observation whether the benefits stated in the AS-3 is actually true.

.....

.....

.....

.....

.....

.....

- 3) List down your difficulties in understanding cash flow statement given in the annual reports.

.....

.....

.....

.....

.....

20.7 CASH FLOW STATEMENT FORMATS

The statement of cash flow requires restating of the information presented on a Balance Sheet but in flow format. The Balance Sheet is prepared by measuring the assets and liabilities at a point of time, usually as on March 31st of the year. In flow statements, whether it is funds flow or cash flow, we measure the changes in assets and liabilities during the period. For example, the liability side of the Balance Sheets contains so many items, which are essentially brought funds for the company. How much of cash is received under each item or how much cash was given back on each item constitute one part of the cash flow statement. Similarly, cash flows on the assets sides are also computed. The changes in retain earning part of the Balance Sheet actually reflect Profit and Loss Account. Cash Flow statement separately computes cash generated and paid for various operating activities. Cash Flow Statement can be prepared in two ways. They are called direct and indirect method. Actually, these two methods differ on the part in which we compute cash from operating activities. It may be noted that AS-3, IAS-7 and also FASB Statement No. 95 all recommend presentation of the direct method in the primary statement though firms are allowed to use either method. However, companies normally provide the statement in indirect format and you will shortly realise some of the reasons behind such practice. While direct method logically summarises cash flow movement under broad operating heads, indirect method works backward from Net profit and remove all non-cash income and expenses to get cash from operating activities. The format used under these two methods are given below:

Table 1
Cash Flow Statement Under Listing Agreement and IAS-7

| IAS-7 (Indirect Method)/SEBI Format | IAS-7 (Direct Method) |
|---|--|
| A. Cash flow from operating activities Net profit before tax & extraordinary items Adjustments for: Depreciation Foreign Exchange Investments Operating Profit before working capital changes Adjustments for: Trade and other receivables Inventories Trade Payables Cash generated from operations Less: Interest paid Direct tax paid Cash flow before extraordinary items Extraordinary items Net Cash from / (used in) operating activities | A. Cash flow from operating activities Cash receipt from customers Less: Cash paid to suppliers & other operating expenses Cash generated from operation Less: Interest paid Income tax paid Cash flow before Extraordinary items Less: Extraordinary items Net Cash from / (used in) operating activities |
| B. Cash flow from investing activities Purchase of fixed assets Sale of fixed assets Acquisition of companies Purchase of investments Sale of investments Interest Received Dividend Received Net cash used in investing activities | B. Cash flow from investment activities Purchase of fixed assets Proceeds from sale of fixed assets Investment in subsidiaries Investment in trade investment Loans and Advances Taken/(returned) Current investments made Interest/Dividend Received Net cash used in investing activities |
| C. Cash flows from financing activity Proceeds from issue of share capital Proceeds from long-term borrowings(net) Repayment of financial lease liabilities Dividend paid Net Cash used in financing activities | C. Cash flows from financing activity Proceeds from issue of share capital Proceeds from long-term borrowings Repayment of Loans Dividend paid Net Cash used in financing activities |
| Net Increase in cash & cash equivalents | Net Increase in cash & cash equivalents |

Direct Method

Under Direct method, the difference between cash receipts from customers and cash paid to suppliers and other operating expenses represents “cash generated from operations”. Both cash receipts from customers and cash paid to suppliers and operating expenses can be calculated as follows:

Cash receipts from customers :

| | | |
|--|-----|-----|
| Cash sales during the year | | xxx |
| Credit sales during the year | | xxx |
| Add : Sundry debtors at the beginning | ... | xxx |
| " Bills receivable at the beginning | ... | xxx |

Analysis of Financial Statements

| | | | |
|--|-----|-----|-----|
| Less : Sundry debtors at the end | xxx | | |
| " Bills receivable at the end | --- | xxx | xxx |
| Cash receipts from the Customers | | | xxx |
| Cash paid to Suppliers and employees | | | |
| Cost of goods sold | xxx | | |
| Operating expenses | xxx | | xxx |
| Add : Sundry creditors at the beginning | | ... | |
| Bills Payable at the beginning | | ... | |
| Outstanding expenses at the beginning | | ... | |
| Stock at the end | | ... | |
| Prepaid expenses at the end | | --- | xxx |
| | | | xxx |
| Less: Sundry Creditors at the end | | ... | |
| Bills Payable at the end | | ... | |
| Stock at the beginning | | ... | |
| Prepaid expenses at the beginning | | --- | xxx |
| Cash paid to Suppliers and employees | | | xxx |

Under direct method all non-cash transactions such as depreciation, goodwill, preliminary expenses, discount on shares and/or debentures etc. and loss or profit on sale of assets and investments are to be ignored as these are non-cash transactions. Similarly, non-operating income such as income from interest and dividends are not to be considered.

The cash flows associated with extraordinary items like bad debts recovered, insurance claim received, loss of stock by fire, earthquake etc., cash flows from interest and dividends received and paid should be disclosed separately.

Cash flow from operating activities is computed under the following heads using a set of equation listed against each.

| Cash Flow Item | Methodology |
|--|---|
| Cash collection from customers | Sales ---- Increase in Accounts Receivables + Decrease in AccountsReceivables |
| Cash Paid to suppliers | Cost of Goods Sold ---- Decrease in Inventory + Increase in Inventory |
| Cash Paid to Employees | Salary Expenses ---- Increase in accrued/outstanding Salaries payable + Decrease in accrued/outstanding Salaries payable |
| Cash Paid for Other operating expenses | Other Operating Expenses ---- Depreciation and other non-cash expenses ---- Decrease in prepaid expenses ---- Increase in outstanding operating expenses + Increase in prepaid expenses + Decrease in outstanding operating expenses |
| Cash paid/received for interest | Net Interest Expenses (expense-income) ---- Increase in outstanding interest + Decrease in outstanding interest ---- Increase in interest receivable + Decrease in interest receivable |

| | |
|-------------------------------------|--|
| Cash from dividend or other sources | Dividend or Other Income + Decrease in other income receivable ---- Increase in other income receivable |
| Cash Paid for Taxes | Tax Expense ---- Increase in deferred tax liability + Decrease in deferred tax liability ---- Decrease in deferred tax asset + Increase in deferred tax asset ---- Increase in taxes payable + Decrease in taxes payable ---- Decrease in prepaid taxes + Increase in prepaid taxes. |

For some of you the above table may be confusing but it is relatively easier to understand. The first item of the equation is actually the figure you get from P&L account. We know the figure that has given in the P&L account is mostly based on accrual concept and hence include 'non cash' part. The second and subsequent lines of the equation are actually for weeding out the 'non cash' part to get the 'cash' part of the expenses. Take a simple item of the above table namely 'cash paid to employees'. The figure Salary and Wages given in the P&L account need not be equal to actual salary and wages that the company has paid. For instance, the company may not have paid March month salary on 31st March as many companies pay their work on 7th of every month. We know this item will appear under salary outstanding. To get the cash amount of salaries and wages, we need to deduct, salary outstanding. Suppose, there is a salary outstanding at the beginning of the year, which means that the company has not paid some salary last year. Assume this value be Rs. 15 lakhs. At the end of the year, the company has not paid March salary and assume this value be Rs. 25 lakhs. If the outstanding salary account at the end of the year shows Rs. 25 lakhs, it means the company would have paid Rs. 15 lakhs of the previous year salary during the current year. Though this Rs. 15 lakhs will not be included in salary expense shown in P&L account (there is no need to show this value as it relates to previous year expenses), we need to consider the same for computing cash paid for salary, where we are not bothered whether the expenses is related to last year or current year. Suppose, if the salary expenses shown in the P&L account is Rs. 300 lakhs, we deduct from Rs. 300 lakhs, a value equal to Rs. 10 lakhs (Rs.25 lakhs --- Rs. 15 lakhs) and state that cash paid for salary is equal to Rs. 290 lakhs. This value represents Rs. 275 lakhs salary of this year and Rs. 15 lakhs salary of the previous year and both paid during the year. Try to develop such logic for each of the equation to understand the concept better.

A comprehensive illustration is provided in the next section.

Indirect Method

Under this method net profit or loss is adjusted for the non-cash items as well as the items for non-operating incomes. The net profit or loss as shown by the profit and loss account cannot be treated as cash from operations. As you are aware that there are certain items like depreciation, goodwill, preliminary expenses etc., which appear on the debit side of profit and loss account but do not affect cash. Such items are added back to net profit. Similarly, items of non-trading incomes like profit on sale of fixed assets, interest and dividend received on investments, refund of taxes, provision for discount on creditors etc., which appear on credit side of profit and loss account, should be deducted from net profit to find out cash from operation.

Analysis of Financial Statements

In addition to the above, there are also certain items which do not appear in the profit and loss account, but have effect on cash. Such items represent changes in current assets and current liabilities. All these adjustments must be made to the net profit or loss as shown by the profit and loss account to ascertain actual amount of cash flow from operations. The proforma for computing the actual cash flow from operations is given below:

**Proforma for
Computation of Cash Flow from Operating Activities**

| | Rs. |
|---|--------------|
| Net Profit (Before tax and Extraordinary items) | Rs. |
| Add : Adjustments for : Depreciation | ..... |
| Misc. Expenses written off | ..... |
| Foreign Exchange | ..... |
| Loss on sale of fixed assets | ..... |
| Interest expenses | ..... |
| (----) Profit on sale of Fixed asset | ..... |
| (----) Dividend received | <u>.....</u> |
| Operating Profit before Working Capital Changes | ..... |
| Add : Adjustment for (working capital changes) : | |
| Decrease in current assets (Excluding cash and equivalents) | ..... |
| Increase in current liabilities | <u>.....</u> |
| Less : Increase in current Assets | ..... |
| Decrease in current Liabilities | <u>.....</u> |
| Cash generated from operating activities | <u>.....</u> |
| Less : Income tax paid | |
| Cash flow before extraordinary items | <u>.....</u> |
| Add : Income from extraordinary items: | |
| Bad debts recovered | ..... |
| Insurance claim received | ..... |
| Income from lottery | |
| Gain from exchange operations etc. | <u>.....</u> |
| Less : Loss from extraordinary items : | |
| Loss of stock from fire, floods etc. | ..... |
| Loss from earthquake | ..... |
| Loss from exchange operations | <u>.....</u> |
| Net Cash from Operating activities | <u>XXXX</u> |

Here under indirect method, you will be seeing a lot of adjustments. These adjustments are mainly to remove non-cash items. For example, if a firm sells Rs. 3000 worth of goods but received only Rs. 2000 and the balance is not received at the end of the period, the receipt of Rs. 2000 can be found out using P&L and Balance sheet values. Assume the company has an opening receivables balance of Rs. 2000. Immediately after the sale, it should have gone up to Rs. 5000 and when it collects Rs. 2000, the closing balance should be Rs. 3000. So, we have the following figures in our P&L and Balance Sheet.

| | |
|-------------------------------|----------|
| Receivables (opening balance) | Rs. 2000 |
| Receivables (closing balance) | Rs. 3000 |
| Sales | Rs. 3000 |

Thus, the cash collected from customers is equal to Opening Receivables Balance plus Sales less Closing Receivables Balance i.e. Rs. 2000+3000 ---- 3000 = Rs. 2000.

Alternatively, we can deduct Rs. 1000 (which is the changes in opening and closing receivable balance) as adjustment to see the impact of the credit sales on the cash.

We will discuss more on these issues in the next section. At this stage, you note down that cash flow statement shows three important values: Net Cash Generated through Operating Activities, Net Cash spent for Investing Activities and finally, net cash generated through financing activities.

In the part one of the table, we have removed non-cash items and in the second part, we removed the impact of changes in inventory. While removal non-cash expenses or income included in the net income is obvious, when changes in current assets and liabilities are adjusted. A firm invests in current assets (raw materials, receivables, etc.) and acquire current liabilities mainly operating purpose. An increase in current assets means spending some money to buy fresh current assets during the period but not necessarily the firm incurs that amount fully. Since part of the amount is received through current liabilities (creditors), we also look into the changes in current liabilities. For instance, if inventory increases by Rs. 50 lakhs and creditors also increases by Rs. 20 lakhs, it means the company has spent Rs. 30 lakhs cash and hence it has negative impact on the cash value.

20.8 CASH FLOW FROM OPERATING ACTIVITIES

We use an illustration to explain the three important items of cash flow statement. Before you proceed further, read the Cash Flow Statement of Infosys Technologies Ltd. given below:

| Infosys Technologies Ltd . | | | |
|--|----------------|----------------|----------------|
| Cash Flow Summary | 2001-02 | 2000-01 | 1999-00 |
| Cash and Cash Equivalents at Beginning of the year | 577.74 | 508.37 | 416.66 |
| Net Cash from Operating Activities | 834.22 | 560.49 | 259.41 |
| Net Cash Used In Investing Activities | --280.23 | --451.3 | --146.2 |
| Net Cash Used In Financing Activities | --104.77 | --39.82 | --21.54 |
| Net Inc/(Dec) In Cash And Cash | 449.22 | 69.37 | 91.71 |
| Cash And Cash Equivalents At End of the year | 1,026.96 | 577.74 | 508.37 |
| Cash Flow From Operating Activities | 2002-03 | 2001-02 | 2000-01 |
| Net Profit Before tax & Extraordinary Items | 943.39 | 696.03 | 325.65 |
| Adjustment For Depreciation | 160.65 | 112.89 | 53.23 |
| Interest(Net) | --51.23 | --38.47 | 0 |
| Dividend Received | 0 | 0 | 0 |
| P/L on Sales of Assets | --0.09 | --0.09 | 0 |
| P/L on Sales of Invests | 0 | 0 | 0 |
| Prov. & W/O(NET) | 0 | 15.29 | 0 |
| P/L In Forex | --13.26 | --20.17 | 0 |
| Others | --139.96 | --85.18 | --36.71 |
| Op. Profit Before Working Capital Changes | 899.5 | 680.3 | 342.17 |
| Adjustment For | | | |
| Trade & other Receivables | --34.36 | --166.2 | --58.3 |
| Inventories | 0 | 0 | 0 |
| Trade Payables | --5.16 | 60.93 | 42.65 |
| Loan & Advances | --39.02 | --34.72 | --41.5 |
| Direct Taxes Paid | 0 | 0 | --35.54 |
| Cash Flow Before Extraordinary Items | 820.96 | 540.32 | 249.48 |
| Extraordinary Items | | | |
| Gain on Forex Exchange Transaction | 13.26 | 20.17 | 9.93 |
| Net Cash Flow From Operating Activities | 834.22 | 560.49 | 259.41 |

Analysis of Financial Statements

The first part of the table shows the summary of Cash Flows of Infosys Technologies Ltd. and the second part lists detail working of Net Cash Flow Operating Activities. Infosys has generated Rs. 834.22 cr. during the year 2001-02 through its operation against Rs. 560.49 cr. during the previous year. How this is comparable with the net profit figure? It is comparable for this company since during the year 2001-02, the company reported a net profit value of Rs. 807.96 cr. But it need not be true for other companies where the net profit and cash from operating activities may show substantial difference. For instance, Pentamedia Graphics Ltd. has reported a net profit of Rs. 98.75 cr. for the year ending March 2002 whereas for the same period, its cash flow from operating activities is a negative value of Rs. 360.88 cr. There could be several reasons for such wide difference between the reported book profit and cash flow from operating activities.

In the Infosys Cash Flow Statement, the first part of the adjustment is related to removing non-cash expenses and income and the second part of adjustment is related to impact of changes in current assets and liabilities. In the third part, cash arising out of extraordinary items is shown separately since the profit figure of the first line excludes such extraordinary items. In terms of relative importance, the part one adjustments are high value. While this may be true for companies like software where working capital is not high, the second component may be large for manufacturing companies. For instance, the cash flow statements of Cipla Ltd. for the year ending 2002 shows an adjustment factor of Rs. 1.25 cr. (negative) for non-cash items against Rs. 183.13 cr. (negative) for working capital items. The adjustments relating to extra-ordinary items is not a regular feature and in the Cipla's case, it has not shown any value in the last three years. An analysis of component of the three operating items shows further insight on where the cash is drained. A year-to-year comparison also shows how much of additional amount is being pumped in each of these items. While such an analysis is possible with balance sheets figures alone, an analysis on cash basis is much simpler and straight forward without any accounting principles and policies related issues. Increasingly, users of financial statement rely on cash flow statement for this reason.

Activity 5

- 1) Collect Cash Flow from Operations of few companies and examine how is related to Profit reported in P&L account?

.....
.....
.....
.....
.....

- 2) Compare the each components of cash flow from operating activity over the period and record your observations here.

.....
.....
.....
.....

20.9 CASH FLOW FROM INVESTING AND FINANCING ACTIVITIES

Measuring cash flow from investing and financing activities is simple and straightforward. Any amount spent in purchase of fixed assets forms part of investing activities. For instance if a firm spends Rs. 20 lakhs to buy new assets and also sold Rs. 3 lakhs worth of assets for Rs. 8 lakhs, the net cash flow on investing activities is Rs. 12 lakhs (Cash outflow of Rs.20 lakhs less Cash inflow Rs. 8 lakhs). Similarly, it is easier to compute cash flow from financing activities. Here we will try to find out the fresh equity and loan that the company has raised during the period and from that we deduct loan amount repaid. In addition to this, we also deduct dividend since dividend is outcome of financing activities. However, you may wonder why interest is not deducted here since it is also related to financing activity. There is no straight answer to this but accounting standards require interest to be shown as a cash outflow item in operating activities.

The cash flow from investing and financing activities of Infosys is given below. Infosys is spending a lot on fixed asset acquisition during the last three years. At the same time, it is not raising any fresh capital and hence its cash flow financing activities is also negative due to high dividend payment.

Cash Flow From Investing and Financing Activities of Infosys Technologies Ltd.

| Cash Flow From Investing Activities | 2002-03 | 2001-02 | 2000-01 |
|--|-------------------|------------------|------------------|
| Investment In Assets : | | | |
| Purchased of Fixed Assets | ---322.74 | ---463.4 | ---159.9 |
| Sale of Fixed Assets | 1.6 | 0.23 | 0.1 |
| Financial/Capital Investment: | | | |
| Purchase of Investments | ----10.32 | ----26.65 | ----13.08 |
| Sale of Investments | 0 | 0 | 0 |
| Investment Income | 0 | 0 | 26.69 |
| Interest Received | 51.23 | 38.47 | 0 |
| Dividend Received | 0 | 0 | 0 |
| Invest. in Subsidiaries | 0 | 0 | 0 |
| Net Cash Used in Investing Activities | ----280.23 | ----451.3 | ----146.2 |
| Cash Flow From Financing Activities | 2002-03 | 2001-02 | 2000-01 |
| Proceeds: | | | |
| Proceeds from Issue of share capital | 0 | 0 | 1.76 |
| Dividend Paid | ----109.37 | ----42.2 | ----19.93 |
| Others | 4.6 | 2.38 | ---3.37 |
| Net Cash Used in Financing Activities | ----104.77 | ----39.82 | ----21.54 |

Illustration 2 Using the P and L account and Balance Sheet given below, prepare Cash Flow Statement both under direct and indirect method.

Profit and Loss Account for the year ended 31st March, 2005

(Rs. in thousands)

| | Year 2004-05 | Year 2003-04 |
|-------------------------------------|--------------|--------------|
| Sales | 111780 | 98050 |
| Other Income | 390 | 220 |
| Cost of Goods Sold | 41954 | 39010 |
| Selling and Administrative Expenses | 16178 | 12500 |
| Profit Before Tax | 54038 | 46760 |
| Less: Income Tax | 21615 | 18704 |
| Profit After Tax | 32423 | 28056 |

(b) Balance Sheet as on 31st March, 2005

(Rs. in thousands)

| Liabilities and Shareholder Equity | As on 31-3-05 | As on 31-3-04 |
|-------------------------------------|---------------|---------------|
| Equity Share Capital | 180000 | 180000 |
| Retained Earnings | 134045 | 101622 |
| Current Liabilities | | |
| Accounts Payable | 3526 | 4330 |
| Income Tax Payable | 21615 | ---- |
| Dividend Payable | ---- | 25000 |
| Total Liabilities | 339186 | 310952 |
| Assets | | |
| Fixed Assets 393000 (370000) | | |
| Less: Depreciation 92400 (90000) | 300600 | 280000 |
| Current Assets | | |
| Cash | 6380 | 6000 |
| Accounts Receivable: 20064 | | |
| Less: Provision --- (972) | 19092 | 23568 |
| Inventory : Raw Materials | 516 | 636 |
| Finished Good | 598 | 748 |
| Investments | 12000 | ---- |
| Total Assets | 339186 | 310952 |

Solution

Cash Flow Statement Under Direct Method (Rs. in thousands)

| | | | |
|---|---------|---------|------------|
| (A) Operating Activities | | | |
| Cash Collection from Sales | | 115716 | |
| Less: Cash Paid for: | | | |
| Raw Materials | (18478) | | |
| Direct Labour | (13452) | | |
| Overhead | (8758) | (40688) | |
| Less: Cash Paid for Non-factory Costs: | | | |
| Salaries and Wages | (14625) | | |
| Other Sales and Administration | (413) | (15038) | |
| Cash Generated from Operation | | | 59990 |
| Add: Interest Earned | | | 390 |
| Net Cash from Operating Activities | | | 60380 |
| (B) Investment Activities | | | |
| Purchase of Plant Assets | | (23000) | |
| Short-term investments | | (12000) | |
| Net Cash Flow from Investing Activities | | | (35000) |
| (C) Financing Activities | | | |
| Dividends paid | | (25000) | |
| Net Cash Flow from Financing Activities | | | (25000) |
| (D) Net Change in Cash | | | 380 |
| Cash at the Beginning of the year | | | 6000 |
| Cash at the End of the Year | | | 6380 |

Cash Flow Statement Under Indirect Method/as per Listing Agreement

**Cash Flow
Analysis**

| | | | |
|---|-------|---------|---------|
| (A) Operating Activities | | | |
| Profit After Tax or Net Income | | 32423 | |
| Adjustments for: | | | |
| Depreciation | 2400 | | |
| Trade Receivables | 4476 | | |
| Inventories | 270 | | |
| Income Tax | 21615 | | |
| Accounts Payable | (804) | 27957 | |
| Net Cash from Operating Activities | | | 60380 |
| (B) Investment Activities | | | |
| Purchase of Plant Assets | | (23000) | |
| Short-term investments | | (12000) | |
| Net Cash Flow from Investing Activities | | | (35000) |
| (C) Financing Activities | | | |
| Dividends paid | | (25000) | |
| Net Cash Flow from Financing Activities | | | (25000) |
| (D) Net Change in Cash | | | |
| Cash at the Beginning of the year | | | 6000 |
| Cash at the End of the Year | | | 6380 |

Illustration 3

Prepare a Cash Flow Statement from the following information under both Direct method and Indirect method:

Balance Sheet as on 31.12.2005

(Rs. in 000)

| Liabilities | 2005 (Rs.) | 2004 (Rs.) | Assets | 2005 (Rs.) | 2004 (Rs.) |
|--------------------------|---------------|---------------|------------------------|---------------|---------------|
| Share Capital | 3,000 | 2,500 | Cash and Bank balances | 400 | 50 |
| Reserves | 6,820 | 2,760 | Short-term investments | 1,340 | 270 |
| Long term debt | 2,220 | 2,080 | Sundry debtors | 3,400 | 2,400 |
| Sundry creditors | 300 | 3,780 | Interest receivable | 200 | --- |
| Interest Payable | 460 | 200 | Inventories | 1,800 | 3,900 |
| Income Tax Payable | 800 | 2,000 | Long term investments | 5,000 | 5,000 |
| Accumulated depreciation | 2,900 | 2,120 | Fixed assets (cost) | 4,360 | 3,820 |
| | <u>16,500</u> | <u>15,440</u> | | <u>16,500</u> | <u>15,440</u> |

Profit and loss account for the period ending Dec. 31, 2005

(Rs. in 000)

| | | | |
|------------------|---------------|----------|---------------|
| | Rs. | | Rs. |
| To Cost of Sales | 52,000 | By Sales | 61,300 |
| To Gross Profit | 9,300 | | |
| | <u>61,300</u> | | <u>61,300</u> |

Analysis of Financial Statements

| | | | |
|--|---------------|--|---------------|
| To Administrative and selling expenses | 1820 | By Gross Profit b/d | 9,300 |
| To Interest expense | 800 | By Dividend income | 400 |
| To Foreign exchange loss | 80 | By Interest income | 600 |
| To Depreciation | 900 | | |
| To Net Profit (Before taxation and Extraordinary item) | 6700 | | |
| | <u>10,300</u> | | <u>10,300</u> |
| To Income Tax | 600 | By Net profit b/d | 6,700 |
| To Net Profit c/d | 6460 | By Insurance proceeds from earthquake settlement | 360 |
| | <u>7,060</u> | | <u>7,060</u> |

Additional information : (Figures are in Rs. 000)

- 1) An amount of Rs. 500 was raised from the issue of share capital and a further Rs. 500 was raised from long term borrowings.
- 2) Interest expense was Rs. 800 of which Rs. 340 was paid during the period. Rs. 200 relates to interest expense of the prior period was also paid during the period.
- 3) Dividends paid were Rs. 2,400.
- 4) Tax deducted at source on dividends received (which was included in the tax paid of Rs. 600 for the year) amounted to Rs. 80.
- 5) During the period, the enterprise acquired fixed assets paying Rs. 700.
- 6) Plant which costs Rs. 160 and accumulated depreciation of Rs. 120 was sold for Rs. 40.
- 7) Foreign exchange loss is due to change in exchange rates of short term investments.

Solution

Cash Flow Statement (Direct Method)

(Rs. in 000)

| | | |
|--|------------------|-------|
| A) Cash Flow from Operating activities | 2005 year | |
| Cash receipts from customers (1) | 60,300 | |
| Less : Cash paid to suppliers and employees (2) | 55,200 | |
| Cash generated from operations | 5,100 | |
| Less : Income Tax Paid (3) | <u>1,720</u> | |
| Cash Flow before extraordinary item | 3,380 | |
| Add : Proceeds from earthquake settlement | <u>360</u> | |
| Net cash from operating activities | | 3,740 |
| B) Cash Flows from Investing activities | | |
| Sale of Plant | 40 | |
| Interest received (Rs. 600 ---- Rs. 200 Accrued interest) | 400 | |
| Dividend received (Rs. 400 ---- Tax deducted at source Rs. 80) | <u>320</u> | |
| | 760 | |
| Less : | | |
| Purchase of fixed assets | <u>700</u> | |
| Net cash from Investing activities | | 60 |

C) Cash Flows from financing activities

**Cash Flow
Analysis**

| | | | |
|---|--------------|--------------|---|
| Issue of share capital | | 500 | |
| Long term borrowing | | <u>500</u> | |
| | | 1000 | |
| Less : Repayment of long term debt (4) | 360 | | |
| Interest paid (5) | 540 | | |
| Dividend paid | <u>2,400</u> | | |
| | | 3,300 | |
| Net cash used in financing activities | | (----) 2300 | |
| Net increase in cash and cash equivalents | | <u>1,500</u> | |
| Add : Cash and cash equivalent at the beginning (Rs. 50 + Rs. 270 Short term Investments) | | <u>320</u> | |
| Cash and cash equivalent at the end | | <u>1,820</u> | * |

* [Rs. 400 + (Short term investments Rs. 1340 + Loss in exchange rate Rs. 80)]

Working Notes:

1) Cash receipts form customers

| | | |
|--|--|--------------|
| Sales | | (Rs. in 000) |
| Add : Sundry debtors at the beginning | | 61,300 |
| | | <u>2,400</u> |
| | | 63,700 |
| Less : Sundry debtors at the end | | <u>3,400</u> |
| | | 60,300 |

2) Cash paid to suppliers and employees

| | | |
|-------------------------------------|--------------|--------------|
| Cash of Sales | | (Rs. in 000) |
| Administrative and selling expenses | | 52,000 |
| Add : Opening creditors | 3,780 | <u>1,820</u> |
| " Inventories at the end | <u>1,800</u> | 53,820 |
| | | 59,400 |
| Less : Creditors at the end | <u>300</u> | <u>4,200</u> |
| " Opening inventories | 3,900 | 55,200 |

3) Income tax paid

| | | |
|---|--|--------------|
| Tax paid (Including Tax deducted at source from dividends received) | | (Rs. in 000) |
| Add : Tax liability at the beginning | | 600 |
| | | <u>2,000</u> |
| | | 2600 |
| Less : Tax liability at the end | | <u>800</u> |
| | | 1,800 |

Out of Rs.1800, tax deducted at source on dividends received (Rs.80), is shown in 'Cash Flows from Investing Activities' and balance of Rs. 1720 is to be shown under 'cash flows from operating activities'.

4) Repayment of long term borrowings (Rs. in 000)

| | |
|--|--------------|
| Long term debt at the beginning | 2,080 |
| Add : Long term debt made during the year | <u>500</u> |
| | 2,580 |
| Less : Long term debt at the end | <u>2,220</u> |
| | <u>360</u> |

Analysis of Financial Statements

| | |
|---|--------------|
| 5) Interest Paid | (Rs. in 000) |
| Interest expense for the year | 800 |
| Add : Interest Payable at the beginning | <u>200</u> |
| | 1,000 |
| Less : Interest payable at the end | <u>460</u> |
| | <u>540</u> |

Cash Flow Statement (Indirect Method)

| | |
|--|--------------------|
| | (Rs. in 000) |
| Cash flows from operating activities | 2005 year |
| Net Profit before taxation and extraordinary item | 6,700 |
| Adjustments for: | |
| + Depreciation | 900 |
| + Foreign exchange loss | 80 |
| + Interest expense | 800 |
| --- Interest income | (---) 600 |
| --- Dividend income | (---) 400 |
| | <u>780</u> |
| Operating Profit before Working Capital Changes | 7480 |
| (---) Increase in sundry debtors | (---) 1,000 |
| (+) Decrease in inventories | 2,100 |
| (---) Decrease in sundry creditors | (---) 3,480 |
| | <u>(---) 2,380</u> |
| Cash Generated from Operations | 5,100 |
| (---) Income tax paid (Rs. 1800 --- Tax deducted at source Rs. 80) | <u>1,720</u> |
| Cash flow before extraordinary item | 3,380 |
| Proceeds from earthquake settlement | 360 |
| Net Cash from Operating Activities | 3,740 |
| Cash flows from investing activities | |
| (---) Fixed assets purchased | (---) 700 |
| (+) Proceeds from sale of plant | 40 |
| (+) Interest received | 400 |
| (Interest income Rs. 600 --- Accrued interest Rs. 200) | |
| (+) Dividend received | |
| (Rs. 400 --- Tax deducted at source Rs. 80) | <u>320</u> |
| Net Cash from Investing Activities | 60 |
| Cash flows from financing activities | |
| (+) Issue of additional capital | 500 |
| (+) Proceeds from long term borrowings | 500 |
| (---) Repayment of long term borrowings (Opening balance ---) 600 | |
| Rs. 2,080 + Borrowings during the year Rs. 500 --- Balance at the end Rs. 2,220) | |
| (---) Interest paid | (---) 540 |
| (---) Dividend paid | (---) 2,400 |
| | <u>(---) 2,300</u> |
| Net Cash Used in Financing Activities | 1,500 |
| Cash & Cash equivalent at the beginning (Rs. 50 + Rs. 270) | <u>320</u> |
| Cash and cash equivalent at the end | <u>1,820</u> |

20.10 USES OF CASH FLOW STATEMENT

Cash flow statement is very useful to the financial management. It is used as a tool for financial analysis for short term planning.

The preparation of cash flow statement has several uses. The more important uses are as follows:

- 1) Changes in cash balance between two points of time and the contributing factors for such change are clearly revealed.
- 2) The cash flow statement explains the reasons for:
 - i) the presence of very low cash balance inspite of huge operating profits: or
 - ii) the presence of a higher cash balance inspite of a very low level of profits
- 3) Projected cash flow statements help the management in short-term planning and several other ways like:
 - i) Determination of additional cash requirements during a given period and making timely arrangements
 - ii) Identification of the size of surplus and the time for which such surplus funds are likely to be available
 - iii) Judging the ability of the firm to repay/redeem debentures/preferences shares.
 - iv) Examining the possibility of maintaining/increasing dividends
 - v) Assessing the capability of finance, replacement of fixed assets
 - vi) Assessing the capacity of the firm to finance expansion.
 - vii) More efficient and effective management of cash flows.

20.11 DISTINCTION BETWEEN CASH FLOW ANALYSIS AND FUND FLOW ANALYSIS

Following are the major points of difference between cash flow analysis and fund flow analysis:

- 1) Fund flow analysis deals with the change in working capital position between two balance sheet dates, whereas the cash flow analysis is concerned with the change in cash position.
- 2) Cash flow analysis is more useful as a tool in short-term financial planning, whereas fund flow analysis is more useful in long-term financial planning.
- 3) An increase in current liability or decrease in current asset (other than cash) results in an increase in cash whereas such changes result in decrease in the net working capital. Similarly, a decrease in any current liability or an increase in current asset (other than cash) results in a decrease in cash, whereas such changes increase the net working capital.
- 4) Cash flow statement recognises 'cash basis of accounting' whereas funds flow statement is based on accrual basis of accounting.
- 5) Cash flow analysis explains only the causes of cash variations, whereas funds flow analysis discloses the causes of overall working capital variations.

Activity 6

- 1) Compute the changes in cash flow from operating activities of Infosys between Year 2001 & 2000 and 2002 & 2001.

.....
.....
.....
.....

- 2) Compute the changes in profit before taxes and depreciation of Infosys between Year 2001 & 2000 and 2002 & 2001.

.....
.....
.....
.....

- 3) Compare whether the profit changes are in line with the changes in cash flow from operating activities.

.....
.....
.....
.....

- 4) Repeat the above two steps for few companies and write your findings.

.....
.....
.....
.....

20.12 LET US SUM UP

Cash Flow Statement and cash flow analysis have assumed importance particularly when many companies have started adopting creative accounting and earnings management. Realising the needs of new users as well as others, regulating agencies have made reporting of cash flow statements mandatory. Cash flow statement is easy to understand and difficult to manipulate. It provides three important pieces of information on cash flow movements of the firm --- how much cash is generated through operation, financing and how much cash is spent for investment? It gives a clear and real picture about the internal activities of the firm. There are two methods of preparation of cash flow statements, namely direct and indirect method. While direct method gives more details on cash flow from operating activities and also reader-friendly, indirect method is more accounting oriented and fails to provide any additional information. Unfortunately, many companies use indirect method though the accounting standards allow both methods. This indirectly shows the eagerness of management to withhold information unless it is required by the regulation. Fortunately, the final figure is adequate to get good insight though additional information will always be useful. Cash flow analysis are typically done by comparing the changes in cash flow from operating activities from period to

period with the changes in profit levels of the firm. Such comparison is useful to understand the quality of reported profit. Also, the cash flow from operating activities are used to compare whether they are sufficient to meet the liabilities of lenders and also contribute for further investments.

20.13 KEY WORDS

Cash Flow: Movement of cash i.e., cash in flow and cash outflow

Cash Flow Statement: Statement prepared to show the sources and uses of cash between the two balance sheets dates.

Cash from Operations: Net profit adjusted for changes in the current items in addition to the adjustments already made while ascertaining funds from operations.

20.14 TERMINAL QUESTIONS

- 1) How cash flow statement is different from income statement? What are the additional benefits to different users of accounting information from cash flow statement?
- 2) List down any four important accounting transactions that increase the profit but has no impact on cash flow statement.
- 3) How does cash flow statement differ from funds flow statement? What are the uses of cash flow statement?
- 4) How does cash flow analysis help the management in decision making?
- 5) What is a 'Cash Flow Statement'? Explain the techniques of preparing a cash flow statement.
- 6) A summary of Cash Flow Statement of Shaheed Industries Ltd. for the last few years is given below. The details of profit are also stated. Suppose you are an analyst working for a leading mutual fund in India prepare a small report on the performance of the company using these two pieces of information.

Summary of Cash Flow Statement of Shaheed Industries Ltd.

| Year | 2003 | 2002 | 2001 | 2000 |
|--|-----------|-----------|-----------|-----------|
| Cash and Cash Equivalents at Beginning of the year | 1,760.71 | 143.27 | 1,081.55 | 4,897.60 |
| Cash from Operating Activities | 6,642.31 | 7,523.00 | 4,748.08 | 1,630.55 |
| Cash Used In Investing Activities | -6,575.53 | -3,928.34 | -2,423.89 | -5,000.06 |
| Cash Used In Financing Activities | -1,680.28 | -1,977.22 | -3,305.11 | -446.54 |
| Net Inc/(Dec) In Cash And Cash | -1,613.50 | 1,617.44 | -980.92 | -3,816.05 |
| Cash and Cash Equivalents at end of the Year | 147.21 | 1,760.71 | 100.63 | 1,081.55 |
| Net Profit Before tax & Extraordinary Items | 4,974.21 | 4,428.70 | 2,645.62 | 2,403.25 |
| Depreciation | 3,452.79 | 3,435.82 | 2,636.73 | 2,533.59 |

7) The following are the Balance Sheet of M/s. Rao Brother Private Ltd. as on March 2004 and 2005

| Liabilities | 2004 Rs. | 2005 Rs. | Assets | 2004 Rs. | 2005 Rs. |
|------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Equity Shares | 4,000 | 4,000 | Fixed assets | 4,100 | 4,000 |
| 12% Redeemable | | | Less : Depreciation | <u>1,100</u> | <u>1,500</u> |
| Preference shares | ---- | 1,000 | | 3,000 | 2,500 |
| Profit and loss a/c | 100 | 120 | Sundry Debtors | 2,000 | 2,400 |
| General reserve | 200 | 200 | Stock | 3,000 | 3,500 |
| Debentures | 600 | 700 | Prepaid expenses | 30 | 50 |
| Creditors | 1,200 | 1,100 | Cash | 120 | 350 |
| Provision for taxation | 800 | 1,000 | | | |
| Bank overdraft | 1,250 | 680 | | | |
| | <u>8,150</u> | <u>8,800</u> | | <u>8,150</u> | <u>8,800</u> |

You are required to prepare a Cash Flow Statement.

(Ans. Cash from Operation Rs. 400, Sources Rs.1,600, Applications Rs. 800)



ignou
THE PEOPLE'S
UNIVERSITY

UNIT 21 PROFITABILITY ANALYSIS

Structure

- 21.0 Objectives
- 21.1 Introduction
- 21.2 Cost Volume Profit Analysis
 - 20.2.1 Fixed Cost
 - 20.2.2 Variable Cost
 - 20.2.3 Semi-variable Cost
 - 20.2.4 Assumptions of Cost Volume Analysis
- 21.3 Break Even Point
- 21.4 Break Even Chart
- 21.5 Profit - Volume Ratio
- 21.6 Margin of Safety
- 21.7 Cost Volume Profit Analysis for a Multi Product Firm
- 21.8 Utility of Break Even Analysis
- 21.9 Let Us Sum Up
- 21.10 Keywords
- 21.11 Answers to Check Your Progress Exercises

21.0 OBJECTIVES

After going through this Unit, you should be able to:

- explain the conceptual framework of cost volume profit analysis,
- discuss the utility of break even point,
- describe the uses of profit volume ratio,
- calculate the CVP for a multi product firm, and
- point out the utility of break even analysis.

21.1 INTRODUCTION

A business enterprise sets up its goals/objectives and directs its efforts towards the fulfillment of them. The primary or central objective of different enterprises may be as:

- 1) A business enterprise seeks profits that will provide a socially acceptable rate of return on investment.
- 2) A Government enterprise attempts to provide services to the citizens at an acceptable cost.
- 3) A non-profit organisation works toward the satisfaction of a general or specific need to society.

The economic considerations are of secondary importance to the non-profit entity and this may be true in certain circumstances for both the business type entity and the non-profit entity.

However, in most of the cases, the economic factors cannot be entirely ignored as long as resources are scarce in relation to human desire and needs. Profit is a signal for the allocation of resources and a yardstick for judging managerial efficiency. The management of a firm has to decide upon the quantum of profits and strive to achieve the target. In this Unit, you will learn the concept of cost volume profit analysis. In this connection break even point, break even chart and profit volume ratio will be discussed in detail.

21.2 COST VOLUME-PROFIT ANALYSIS

In Profit Planning the management of a firm seeks to answer the following questions:

- At what level of activity, should the firm be able to sustain? (How much capacity to have?)
- What activity level should the firm actively sustain? (How much capacity to use?)
- What products and/or services, and how much of each, should the *firm* offer? and
- What price should the firm charge?

In seeking answers to these questions, the management requires forecasting of revenues and costs. Revenues depend upon sales and the costs depend upon the elements which make it. Therefore, understanding the behaviour of costs and revenues is very much necessary for profitability analysis.

Let us now discuss the cost volume profit analysis in detail. There are two approaches for profitability analysis viz., Cost-Volume Profit Analysis (CVP) and Proforma Income Statements. Cost-Volume Profit Analysis provides information on relationship among costs, volume, prices and profits. These help in developing alternatives operational strategies for the target profit. The Proforma Income Statement approach furnishes a more refined and detailed breakdown of costs and, therefore, provides a better basis for establishing control.

The Cost Volume Profit analysis is an attempt to measure the effect of changes in volume, cost, price and product-mix on profits. Infact, these variables are inter- related and each one of them is affected by a number of internal and external factors. For example costs may vary due to the choice of the project, scale of operation, extent of automation and new technology and management and workers efficiency. Externally costs are affected by the market forces. Although a number of factors influence costs and profits, the largest single variable affecting them in the short run is the volume of output. Hence, the C W relationship is a vital instrument for the manager who takes short run decisions like: what are the most profitable and what are the least profitable products or services? How does a selling price affect profits? How does volume or product-mix affect products or services cost and profit? What will be the break even point if volume and costs change? How an increase in wages or other operating expenses will affect profit?

The manager may take the help of CVP to answer these questions. In simple term usually CVP helps in deciding:

- i) At what sales volume would the firm break even?
- ii) How sensitive is profit to variations in output, selling price, fixed costs, and variable costs?
- iii) How much should the firm produce and sell in order to reach a target profit level?

In analysing the profitability through Cost-Volume Profit analysis, it becomes essential to understand the relationship between sales, fixed costs, variable costs and the profit.

The costs may be classified into three categories based on the behaviour of cost relative to volume changes:

- **Fixed Cost**
- **Variable Cost**
- **Semi variable Cost**

Let us discuss them in detail.

21.2.1 Fixed Cost

Fixed Costs are those costs which do not change with variation in the level of output. Rent of factory building, property taxes, insurance, depreciation on plant and machinery are the examples of fixed cost. These costs arise as a result of capacity creation and are invariant with respect to variation of activity. They tend to change only with time. When fixed cost is expressed in terms of per unit, it changes with level of activity. The fixed costs are shown in figure-1:

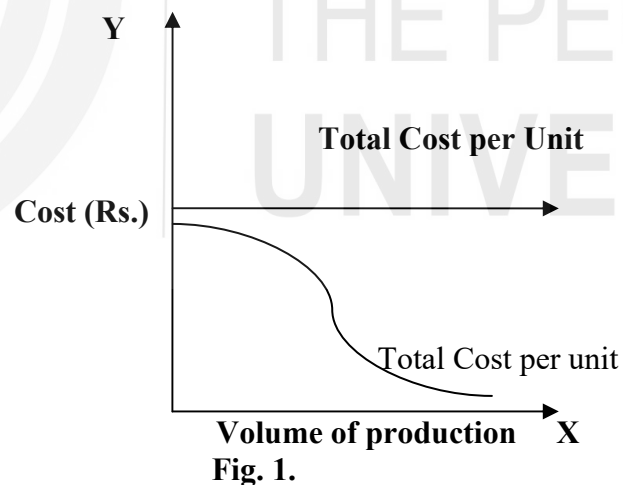


Fig. 1.

From the graph, it can be seen that:

- i) The total fixed cost line does not touch X axis at all because fixed cost can never be zero, as these refer to cost incurred for capacity creation.
- ii) Even if production is not there, the fixed cost will remain there because it has already been incurred.

- iii) Fixed cost when calculated on per unit basis, we find that it goes down with the increase in production.

21.2.2 Variable Cost

Variable costs in the normal production range usually change in direct proportion to the level of activity. When levels of output increase or decrease these costs also accordingly increase or decrease. However, if we find the variable cost per unit basis, it remains same. Variable cost generally consists of direct materials, direct labour (wages), power, royalties, commission to salesmen etc. This is shown in figure-2:

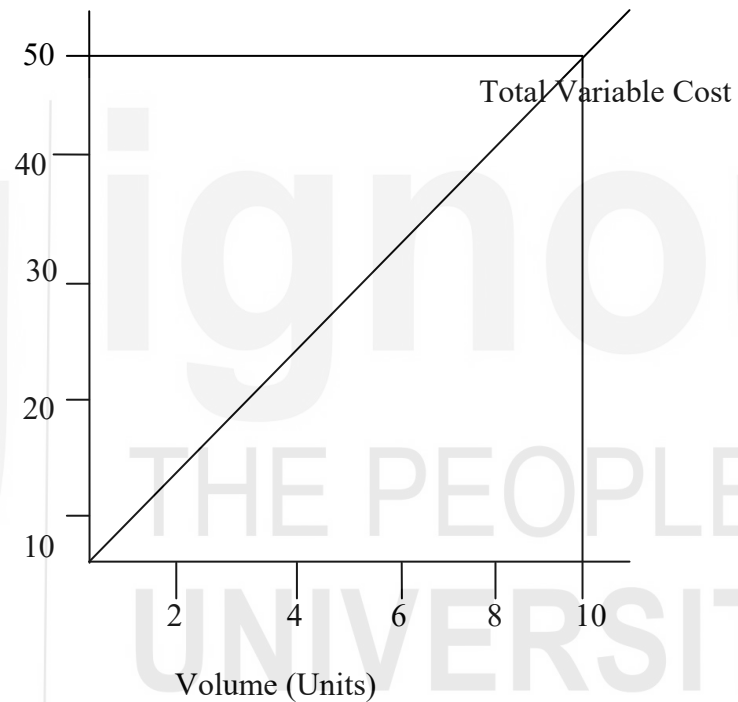


Fig. 2.

The main characteristics of variable costs are:

- i) Total variable cost varies in direct proportion to volume of output.
- ii) Variable cost per unit remains constant.
- iii) Variable costs are easy to identify and can be accurately allocated as cost objects.
- iv) Variable cost is nil when production is nil.

21.2.3 Semi variable Cost

Semi variable Costs are the costs which are partly fixed and partly variable i.e., they have a fixed part which does not vary without put changes and also variable part which changes. The common example of this type of cost is rentals of telephone which has a minimum rent and rent

free calls. After the free calls are exhausted the charges are levied according to number of calls done. The other example of semivariable costs are the overhead costs, cost of selling a product, indirect labour and material costs.

In figure-3 the behavior of semi variable cost is represented.

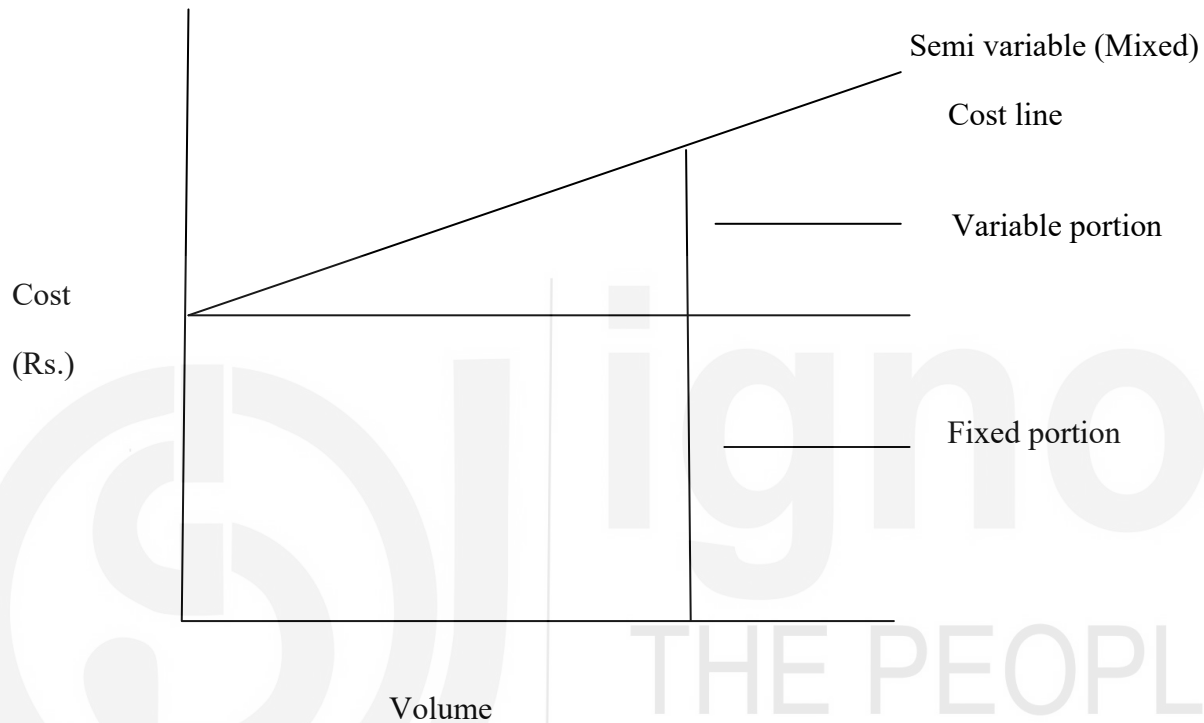


Fig. 3.

21.2.4 Assumptions of Cost Volume Profit Analysis

The simplicity of CVP analysis lies in number of assumptions which should be clearly understood before attempting to analyse the profitability. The following assumptions are made:

- 1) It is assumed that behavior of total cost and revenues is always determined with reasonable accuracy.
- 2) All costs can be divided into fixed and variable costs.
- 3) Unit selling price is constant.
- 4) Total fixed cost remains constant.
- 5) Variable cost change at a linear rate.
- 6) It is assumed that the firm continues to sell a single product, or the given sales mix will be unchanged as volume changes over relevant range.
- 7) Stocks are kept either constant or at zero level. Therefore, it is assumed that production equals sales.

- 8) The time horizon is short and time value of money is not significant.
- 9) The manufacturing facilities considered for analysis do not change during the time period.
- 10) Prices of the factor of production do not change.

Check Your Progress-1

1) What do you mean by Cost Volume Profit Analysis?

.....
.....
.....
.....

2) Distinguish between Fixed cost and Variable cost.

.....
.....
.....
.....

3) What is Semi-variable cost?

.....
.....
.....
.....

21.3 BREAK EVEN POINT

A break even point (BEP) is that level of output where total cost equals total revenues. At this level of output the firm neither earns profit nor suffers any loss. This is a point where total contribution is just equal to fixed cost and no profit is earned. No firm would like to keep output level at this point only since each firm would like to have an acceptable profit. However, beyond this point of output, the firm earns a profit.

The relation between revenue and cost data is expressed as:

| | Per Unit | Total |
|--------------------|-----------------|--------------|
| | (Rs.) | (Rs.) |
| Sales | _____ | _____ |
| Less variable cost | _____ | _____ |
| Contribution | _____ | _____ |
| Less fixed cost | _____ | _____ |
| Profit | _____ | _____ |

We know that

$$\begin{aligned} \text{Sale} &= \text{Total Cost} + \text{Profit} \\ &= \text{Variable} + \text{Fixed Cost} + \text{Profit} \end{aligned}$$

At the break even point, profits will be nil, so

$$\text{Sale} = \text{Variable Cost} + \text{Fixed Cost}$$

In the algebraic form this relation can be expressed:

$$\begin{aligned} \text{If } \mathbf{F} &= \text{Total fixed cost} \\ \mathbf{Q} &= \text{Quantity Produced and Sold} \\ \mathbf{V} &= \text{Unit Variable Cost} \\ \mathbf{P} &= \text{Selling Price per unit.} \end{aligned}$$

$$\text{Total Variable Cost} = \mathbf{Q \times V}$$

$$\text{Total Revenue} = \mathbf{Q \times P}$$

$$\mathbf{Q \times P} = \mathbf{Q \times V + F + Profit}$$

$$\text{Or Profit} = \mathbf{Q (P - V) - F}$$

At break even point as there is no profit

$$\mathbf{Q (P - V) - F = 0}$$

$$\text{Or } \mathbf{Q = \frac{F}{P - V}}$$

This expression is used in finding out the break even quantity that should be produced and sold to cover up the fixed cost.

Another important aspect is the contribution. Contribution defined as difference between the selling price and variable cost. The theory of contribution describes the relationship between variable cost and selling price. In short, you should remember that:

- i) The difference between selling price and variable cost per unit is the contribution.
- ii) If nothing is produced the loss involved will be the total fixed costs.
- iii) Variable cost per unit remains the same for different levels of output.

Contribution may be worked on per unit basis.

Contribution per unit = Selling Price per Unit – Variable per unit

Example:

Let us consider an example to understand how to calculate the break even quantity.

A factor produces 15000 units. Sale price of each unit is Rs. 15/-. The fixed cost of firm is Rs. 50,000/-. The variable cost per unit is Rs. 10/-. To find out the break even quantity.

The break even Quantity (Q) is calculated as:

$$Q = \frac{50,000}{15 - 10} = 10,000 \text{ units}$$

If the firm produces 10,000 units only by incurring a fixed cost of Rs. 50,000, then at this level of output, there will be no profit to the firm. Since the firm has to earn profit, it should produce more than break even quantity.

In this case firm is producing 15000 units, so the profit can be worked out:

$$\begin{aligned} \text{Profit} &= 15000 \times 15 - 15000 \times 10 - 50,000 \\ &= 25,000 \text{ (Rs.)} \end{aligned}$$

21.4 BREAK EVEN CHART

The break even point can also be determined using break even chart. A break even chart shows the relationship between costs, volume and profit graphically. In this graph, the total cost line and revenue line are plotted against the different levels of production. The point at which total cost line and revenue line cuts each other, it called break even point.

Graphically, is shown in Figure-4:

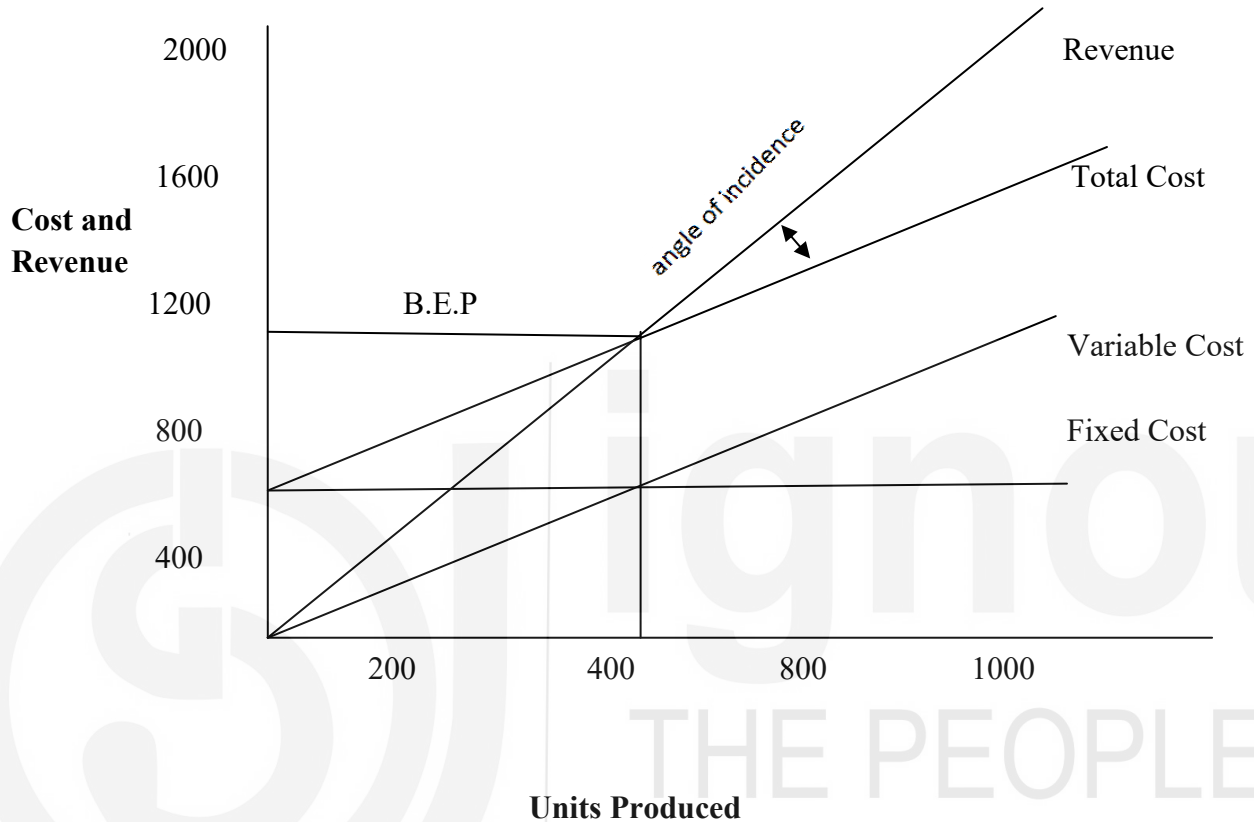


Fig. 4.

Using the previous example, we can determine the break even point through the break even chart method. At various levels of production, the cost and revenues can be worked out:

| Output (Units) | Variable Cost @ 10 | Fixed Cost | Total Cost | Sales @ 15 Per Unit |
|----------------|--------------------|------------|------------|---------------------|
| 0 | 0 | 50,000 | 50,000 | Nil |
| 5,000 | 50,000 | 50,000 | 1,00,000 | 75,000 |
| 10,000 | 1,00,000 | 50,000 | 1,50,000 | 1,50,000 |
| 15,000 | 1,50,000 | 50,000 | 2,00,000 | 2,25,000 |

Now plotting this data we get graph as shown in figure-5:

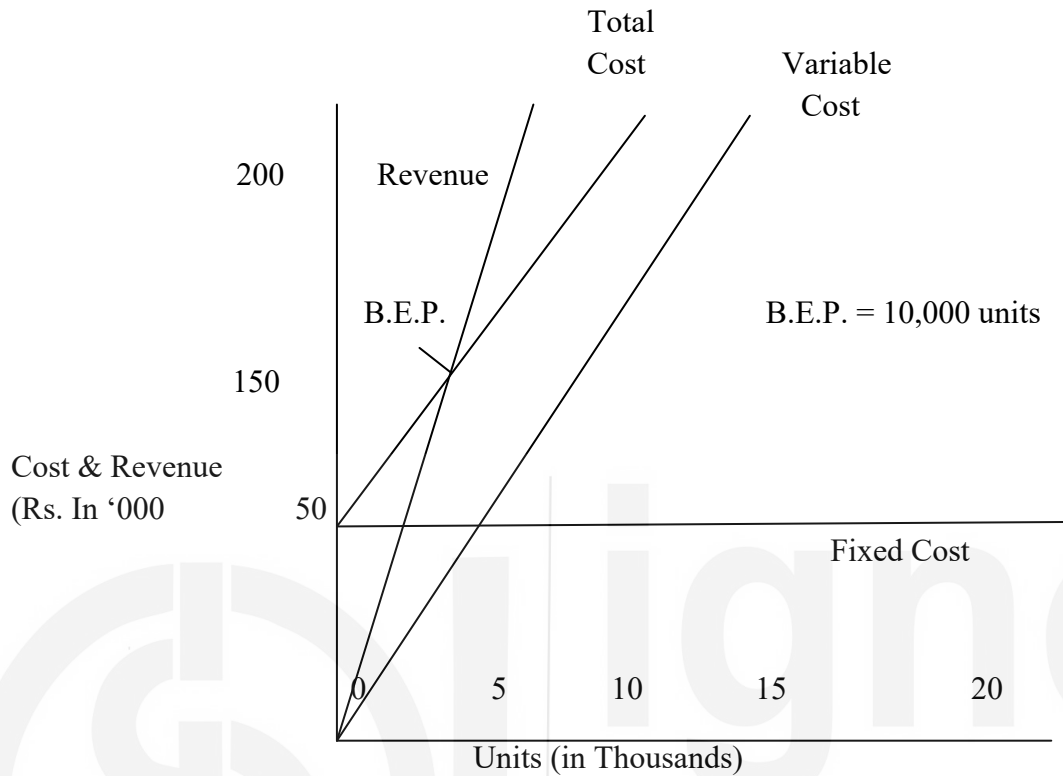


Fig.5.

From this graph find out the break even quantity = 10000

And profit for 15,000 units = Rs. 25,000.

Angle of Incidence : In the break even graph, the angle formed by the intersection of sales line and total cost line at the BEP is known as angle of incidence, the break even point will be lower and with lower angle of incidence, the higher will be the break even point.

Also the area to left of break even point represents the uncovered fixed cost, while to the right it shows the profit area.

21.5 PROFIT VOLUME RATIO

When the unit contribution margin is expressed in terms of percentage, it is called profit/volume ratio or P/V ratio. This ratio shows the relationship between contribution and volume of sales.

$$\frac{P}{V} = \frac{\text{Contribution} \times 1000}{\text{Sale}}$$

$$\frac{\text{Sale} - \text{Variable Cost} \times 100}{\text{Sale}}$$

$$- \frac{1 - \text{Variable cost} \times 100}{\text{Sale}}$$

P/V ratio serves as a guide to profitability of a business. On the basis of this ratio, management decides to choose the most profit selling area, i.e. of product and method of sale. In specific term P/V ratio can be used:

- i) For the determination of variable costs for any volume of sales.
- ii) With the help of P/V ratio comparisons can be made for line of product, sales area, methods of sale, individual factories and separate companies.

In order to ascertain the actual profitability position, the management should also find out the Margin of Safety, which is dealt in the next Section.

21.6 MARGIN OF SAFETY

The excess of actual sale over the breakeven sale is called Margin of Safety. Margin of safety can be expressed in absolute terms or in relative form. In absolute terms, the margin of safety is expressed as:

Margin of Safety = Actual Volume of Sale – Break even point sales.

In the example the Margin of Safety is:

$$= (15000 - 10000) \times 15$$

$$= \text{Rs. } 75000$$

The size of the Margin of Safety is an extremely valuable guide to the strength of a business. If large, this means that there can be a substantial falling off in sales and yet a profit can still be made. On the other hand, if the margin is small any loss of sales may be a serious problem. In other words, the margin of safety indicates the extent to which sales may fall before the firm suffers a loss. You should note that the higher margin of safety is better for the firm.

A firm can also use Profit-volume analysis to find out the volume of sale required for earning a given amount of profit.

Sales Volume

$$\text{(to earn desired amount of Profit)} \quad - \quad \frac{\text{Fixed Cost} + \text{Desired Profit}}{\text{P/V or Contribution ratio}}$$

The profit in this formula means profit before interest and tax.

The profit of a firm may change due to change in any or combination of the following causes:

- 1) Selling Price
- 2) Volume Variable Cost
- 3) Variable Cost
- 4) Fixed Cost

As the selling price changes, the revenue of firm will be affected and so the break even point or profitability is affected. The price may change due to change in cost of production, due to competition etc.

From the break even quantity expression, it can be easily seen that as the prices increase keeping the variable cost same, the contribution would change and hence the break even point would change.

If the volume of output changes without any change in selling price or cost, the break even point would not change and hence profit will increase with increase in volume and vice versa.

Change in variable cost will cause change in contribution and hence break even point will be affected. The profit of the firm will be affected too. Here, we may have a case when variable costs increase without a change in selling price which is based on the competition in market.

A change in fixed cost will not affect the contribution, but break even point is changed and hence the profit will also change. When the fixed cost is increased, the break even point will rise, so for a given volume of output, the profit will change. Change in fixed cost may be due to external factors like increase in rent, or property tax or internal one as changes in salaries.

21.7 COST VOLUME PROFIT ANALYSIS FOR A MULTI PRODUCT FIRM

In the profitability analysis so far we have discussed break even analysis for a single product firm. However, in real business situation a firm may be producing a number of products. The relative proportion of sales of each product is called the sales mix or product mix. In the break even analysis of a multiproduct firm, if the fixed cost distribution for different products is known, then break even point for them can be calculated independently. However, in practical life the fixed cost for the firm is known as a whole rather than fixed cost pertaining to each product. To work out the break even point in such cases, we work out the combined break even point for the firm.

The overall break even quantity of a multiproduct firm can be calculated using the following formula:

$$Q = \frac{F}{\sum W_i CM_i}$$

Q = Combined break even quantity
 F = Total fixed cost
 W_i = Proportion of product in the sales mix
 CM_i = Contribution margin of product

To understand use of this expression, let us consider the case of M/s. ABC Limited. The firm manufactures three products X, Y and Z. The selling price, variable cost and the sales mix are shown in the following table.

| Product | Sales Mix | Selling Price (Rs./Unit) | Variable Cost Rs./Unit |
|---------|-----------|--------------------------|------------------------|
| X | 20% | 15 | 5 |
| Y | 30% | 20 | 10 |
| Z | 50% | 30 | 10 |

The total fixed cost of firm is Rs. 15,00,000.

The weighted contribution margin in this case shall be:

$$W_1 CM_1 + W_2 CM_2 + W_3 CM_3$$

$$= .2 \times 10 + .3 \times 10 + .5 \times 20$$

$$= \text{Rs. } 15$$

The combined break even quantity =

$$\frac{15,00,000}{15} = 1,00,000 \text{ units}$$

The quantity (break even) of each product can now be worked out as:

Product

$$X = 0.2 \times 1,00,000 = 20,000 \text{ units}$$

$$Y = 0.3 \times 1,00,000 = 30,000 \text{ units}$$

$$Z = 0.5 \times 1,00,000 = 50,000 \text{ units}$$

21.8 UTILITY OF BREAK EVEN ANALYSIS

Break even analysis considered a very important method of short term profit analysis. This helps in analyzing the profit at various levels of output. This analysis can be used in fixing a price or reviewing prices. Suppose the firm decides to lower the selling prices, then it would also like to know the changes in volume of sale required to match the profit earlier obtained. The financial manager may use this analysis in planning the make up of capitalization of company. We may find out the operating risk of company. Once the break even point is known, the changes in volume of output determine the stability of profit. This also helps the management to determine the ability to service debt. Acquiring the fixed assets and its implication on profit of company can be analysed using break even analysis.

However, there are certain drawbacks in break even analysis which should be given due considerations:

- 1) Break even analysis being a short run analysis may not be useful for firms which frequently change their product mix, method of production or where material and labour cost changes rapidly.
- 2) This analysis also do not consider the uncertainty and risk factor, in estimating the cost, volume of output and hence the profit. This analysis uses the past records of cost, volume and prices which are considered to be stable. However, in today's context the same may not be true.

Check Your Progress-2

1) What is break even point?

.....
.....
.....

2) What do you mean by contribution?

.....
.....
.....

3) What is profit-volume ratio?

.....
.....
.....

21.9 LET US SUM UP

In the profitability analysis, the cost volume profit analysis plays an important role. This analysis is based on relationship of profit to volume of output, costs and price. CVP model helps in answering what and if questions related to changing price, variable cost or fixed cost on the profit.

The cost volume profit analysis provide profitability analysis in short run i.e., during which the fixed factors of production represented by the capital assets like plant, machinery, land, building etc. remain the same. During the short run, the costs, revenue and profits of a firm are basically functions of level of an activity. However, in practical case, we find that some factors like changing general prices, seasonal fluctuations, government or management policies also bring about changes in costs, revenues and profits of a firm. So, it is necessary to keep this into consideration while using the CVP analysis.

21.10 KEYWORDS

- CVP Analysis** : It is a method which helps in studying the behaviour of profit in relation to cost and volume.
- Fixed Costs** : Fixed costs are the costs which do not vary with change in volume of output.
- Variable Costs** : The costs which vary in direct proportion to the volume of production.
- Break even Point** : Break even point is the level of sales (volume) at which total costs and total revenues are equal.
- Break even Chart** : This is a graphical method of presenting the relationship between costs/revenues and volume of production.
- Angle of Incidence** : The angle of incidence denotes the angle formed between the revenue line and the total cost line at the break even point.
- Margin of Safety** : The excess of actual or budgeted sales over the break even sales is known as margin of safety.
- Contribution** : It refers to the difference between selling price and variable cost.

$$\text{Contribution} = \text{Selling Price} - \text{Variable Cost}$$

21.11 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

| |
|-----------------------|
| Check Your Progress-1 |
|-----------------------|

- 1) See Sec. 21.2
- 2) Base your answer on Sub-sec. 21.2 and 21.2.2
- 3) Read the Sub-sec. 21.2.3

Check Your Progress-2

- 1) See Sec. 21.3
- 2) The difference between selling price and variable cost. Read the second aspect of Sec. 21.3
- 3) Read Sec. 21.5



ignou
THE PEOPLE'S
UNIVERSITY