SURESH GYAN VIHAR UNIVERSITY
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Master of Business Administration

(MBA)

ACCOUNTING AND FINANCIAL MANAGEMENT

Semester-I

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Learning out comes

Students will be able to understand:

Unit-1

- Understand the importance of human resources as a key asset and source of competitive advantage for organizations.
- Analyze different definitions of HRM proposed by scholars and practitioners and their implications for organizational practices.
- Analyze the challenges and trade-offs associated with balancing HRM objectives and organizational priorities.

Unit-2

- Understand how human resource planning contributes to organizational sustainability, adaptability, and competitiveness in dynamic business environments.
- Analyze the implications of these problems for organizational performance, workforce morale, and strategic decision-making.

Unit-3

- Understand the advantages and disadvantages of each performance appraisal method and their suitability for different organizational contexts and job roles.
- Analyze the implications of these limitations and challenges for organizational effectiveness, employee morale, and performance improvement initiatives.

Unit-4

- Understand the multidisciplinary nature of OB, drawing insights from psychology, sociology, anthropology, and management.
- Analyze the role of OB in addressing challenges related to diversity, globalization, technological change, and organizational culture.

Unit-5

- Understand the role of effective teamwork in achieving organizational objectives and fostering innovation, creativity, and problem-solving.
- Understand the role of leadership in facilitating team building and fostering a positive team culture.

SYLLABUS

ACCOUNTING AND FINANCIAL MANAGEMENT

UNIT I

INTRODUCTION PROCESS OF ACCOUNTING

Introduction, Definition and meaning of Accounting, Importance and scope of Accounting, Methods of Accounting, Glossary of important Accounting Terms, Branches of Accounting, Accounting Concepts, Accounting Conventions, Capital and Revenue Receipts and Payments, Forms of Business Organizations, Groups Interested In Accounting Information, The Profession Of Accounting, Concept of process of accounting, Types of Accounts, Golden Rules of Accounting, Journalizing, Ledger Posting, Subsidiary books, Trial Balance, Exercises on Accounting.

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Introduction, Meaning and Importance of Profit Management, Profitability Ratios, Dividend Policy, Types of Dividends, Dividend Theories.

UNIT I

INTRODUCTION AND PROCESS OF ACCOUNTING

STRUCTURE

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1.1 LEARNING OBJECTIVE

After completing this unit, you will be able to:

- Understand the Definition and meaning of accounting.
- State the Importance and scope of accounting.
- Explain the Methods of Accounting.
- Describe the Branches of Accounting.
- State the Accounting Concepts and Conventions.
- Differentiate between Capital and Revenue Expenditure and Receipts.
- Know the different forms of Business Organizations.
- List the Groups Interested in Accounting Information.
- Journalize the transactions.
- Prepare ledger posting.
- State the Subsidiary books.
- Prepare the Trial Balance.

1.2 INTRODUCTION

Accounting is aptly called the language of business. This designation is applied to accounting because it is the method of communicating business information. The basic function of any language is to serve as a means of communication. Accounting duly serves this function. The task of learning accounting is essentially the same as the task of learning a new language. But the acceleration of change in business organization has contributed to increase the complexities in this language. Like other languages, it is undergoing continuous change in an attempt to discover better means of communications. To enable the accounting language to convey the same meaning to all stakeholders, it should be made standard. To make it a standard language certain accounting principles, concepts and standards have been developed over a period of time. This lesson dwells upon the different dimensions of accounting, accounting concepts, accounting principles and the accounting standards.

A person carrying out business is interested in knowing basically two facts about his business:

a. Whether the business has resulted into the profit or loss?
b. What are the assets and liabilities of the business?

Hence, a business organization has to maintain the accounts to find the answer to these questions.

Evolution of Accounting

Accounting is as old as money itself. It has evolved, as have medicine, law and most other fields of human activity in response to the social and economic needs of society. People

in all civilizations have maintained various types of records of business activities. The oldest known are clay tablet records of the payment of wages in Babylonia around 600 b.c. accounting was practiced in India twenty-four centuries ago as is clear from Kausalya's book 'Arthshastra' which clearly indicates the existence and need of proper accounting and audit.

For the most part, early accounting dealt only with limited aspects of the financial operations of private or governmental enterprises. Complete accounting system for an enterprise which came to be called as "double entry system" was developed in Italy in the 15th century. The first known description of the system was published there in 1494 by a Franciscan monk by the name Luca Pacioli.

The expanded business operations initiated by the industrial revolution required increasingly large amounts of money which in turn resulted in the development of the corporation form of organizations. As corporations became larger, an increasing number of individuals and institutions looked to accountants to provide economic information about these enterprises. For e.g., Prospective investors and creditors sought information about a corporation's financial status. Government agencies required financial information for purposes of taxation and regulation.

Thus, accounting began to expand its function of meeting the needs of relatively few owners to a public role of meeting the needs of a variety of interested parties.

1.3 DEFINITION AND MEANING OF ACCOUNTING

Book-keeping is that branch of knowledge which tells us how to keep a record of business transactions. It is considered as an art of recording systematically the various types of transactions that occur in a business concern in the books of accounts. According to spicer and Pegler, "book-keeping is the art of recording all money transactions, so that the financial position of an undertaking and its relationship to both its proprietors and to outside persons can be readily ascertained". Accounting is a term which refers to a systematic study of the principles and methods of keeping accounts. Accountancy and book-keeping are related terms; the former relates to the theoretical study and the latter refers to the practical work.

According to American Institute of Certified Public Accountants, "'Accounting is on art of recording, classifying and summarizing in a significant manner and in terms of money, transactions and events which are of a financial character and interpreting the results thereof."

Accounting is a sum of the following functions:

a. Recording a monetary transaction in a primary book in a systematic manner.

b. Classifying the transactions account wise to know the transactions of a particular account.

c. Summarizing the transactions to know the overall position of balances.

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d. Interpreting the transactions in terms of profit and loss.

e. Interpreting the transactions in terms of assets and liabilities.

Another popular definition on accounting was given by American accounting principles board in 1970, which defined it as: "accounting is a service society. Its function is to provide quantitative information, primarily financial in nature, about economic entities that is useful in making economic decision, in making reasoned choices among alternative courses of action".

1.4 IMPORTANCE AND SCOPE OF ACCOUNTING

Individuals engaged in such areas of business as finance, production, marketing, personnel and general management need not be expert accountants but their effectiveness is no doubt increased if they have a good understanding of accounting principles. Everyone engaged in business activity, from the bottom level employee to the chief executive and owner, comes into contact with accounting. The higher the level of authority and responsibility, the greater is the need for an understanding of accounting concepts and terminology.

A study conducted in United States revealed that the most common background of chief executive officers in United States corporations was finance and accounting. Interviews with several corporate executives drew the following comments:

"My training in accounting and auditing practice has been extremely valuable to me throughout". "A knowledge of accounting carried with it understanding of the establishment and maintenance of sound financial controls- is an area which is absolutely essential to a Chief Executive Officer".

Though accounting is generally associated with business, it is not only business people who make use of accounting but also many individuals in non-business areas that make use of accounting data and need to understand accounting principles and terminology. For e.g., an engineer responsible for selecting the most desirable solution to a technical manufacturing problem may consider cost accounting data to be the decisive factor. Lawyers want accounting data in tax cases and damages from breach of contract. Governmental agencies rely on an accounting data in evaluating the efficiency of government operations and for approving the feasibility of proposed taxation and spending programs. Accounting thus plays an important role in modern society and broadly speaking all citizens are affected by accounting in some way or the other.

Functions of Accounting

Accounting which is so important to all, discharges the following vital functions:

1. Keeping Systematic Records. This is the fundamental function of accounting. The transactions of the business are properly recorded, classified and summarized into final financial statements-income statement and the balance sheet.
2. Protecting the Business Properties. Accounting helps to protect the properties of the business by maintaining proper record of various assets and thus enabling the

management to exercise proper control over them.

3. Communicating the Results. Accounting has been designated as the language ot business. It communicates financial information in respect of net profits, assets, liabilities, etc., to the interested parties.
4. Meeting Legal Requirements: Accounting devises such a system as will meet the legal requirements. The provisions of various laws such as the companies act, income tax act, etc., require the submission of various statements like income tax returns, annual accounts and so on. Accounting system aims at fulfilling this requirement of law.
5. Providing information to make judgments about the organization. Accounting is the system that provides such information as resources and the results achieved through using them.

Any system has three features, viz., input, processes and output. Accounting as a social science can be viewed as an information system, since it has all the three features i.e., inputs (raw data), processes (men and equipment) and outputs (reports and information). Accounting information is composed principally of financial data about business transactions. The mere records of transactions are of little use in making "informed judgments and decisions". The recorded data must be sorted and summarized before significant analysis can be prepared. Some of the reports to the enterprise manager and to others who need economic information may be made frequently; other reports are issued only at longer intervals. The usefulness of reports is often enhanced by various types of percentage and trend analyses. The "basic raw materials" of accounting are composed of business transactions data. Its "primary end products" are composed of various summaries, analyses and reports.

Accounting is important due to the following reasons

1. Systematic Records
2. Preparation of Financial Statements
3. Assessment of Progress
4. Aid to Decision Making
5. Statutory Requirements
6. Information to Interested Groups
7. Evidence in Courts
8. Taxation Problems
9. Merger of Firms
10. Evaluating the performance in terms of profit or loss
11. Future reference
12. Fixation of selling price based on the cost of production

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OBJECTIVES OF ACCOUNTING

The following are the important objectives of accounting:

1. Maintenance of Accounting Records.
2. Ascertainment of Profit and Loss.
3. Depiction of Financial Position.
4. Providing Information to the stake holders.
5. Maintaining Control over Assets.
6. Planning in Respect of Cash.
7. Ascertainment of cost of production.

SCOPE OF ACCOUNTING

1. Accounting is concerned with the transactions and events which are of financial character.
2. Identified and measured transactions are recorded in a book called journal or book of the prime entry.
3. The recorded transactions have to be classified according to nature of transactions. This work is done in a separate book called Ledger.
4. Preparing profit and loss account and a Balance Sheet.

LIMITATIONS OF ACCOUNTING

1. It cannot measure the qualitative aspects of the products
2. Accounting relies on estimates and forecasts
3. Accountants rely on historical cost for recording the fixed assets
4. Accounting ignores the price level changes

1.5 METHODS OF ACCOUNTING AND GLOSSARY OF IMPORTANT ACCOUNTING TERMS

Basically, there are two Methods/Systems of accounting viz.
Cash or Realization System of Accounting and Mercantile or Accrual System of Accounting

a. **Cash or Realization System of Accounting:** Expenses are considered to be expenses only when they are paid for, and the incomes are considered to be incomes only when they are actually received.

   Realization Concept: Realization refers to inflows of cash or claims to cash like bills receivables, debtors etc. Arising from the sale of assets or rendering of services. According to realization concept, revenues are usually recognized in the period in which goods were sold to customers or in which services were rendered. Sale is considered to be made at the point when the property in goods passes to the buyer and he becomes legally liable to pay. To illustrate this point, let us consider the case of a, a manufacturer who produces goods on receipt of orders. When an order is received from X, Y starts the process of production and delivers the goods to X when the

production is complete. X makes payment on receipt of goods. In this example, the sale will be presumed to have been made not at the time when goods are delivered to X. A second aspect of the realization concept is that the amount recognized as revenue is the amount that is reasonably certain to be realized. However, lot of reasoning has to be applied to ascertain as to how certain 'reasonably certain' is ... yet, one thing is clear, that is, the amount of revenue to be recorded may be less than the sales value of the goods sold and services rendered, for e.g. When goods are sold at a discount, revenue is recorded not at the list price but at the amount at which sale is made. Similarly, it is on account of this aspect of the concept that when sales are made on credit, though entry is made for the full amount of sales, the estimated amount of bad debts is treated as an expense and the effect on net income is the same as it the revenue were reported as the amount of sales minus the estimated amount of bad debts.

b. **Mercantile or Accrual System of Accounting:** Expenses are considered as expenses during the period to which they pertain. Similarly, incomes are considered to be incomes during the period to which they pertain. When the expenses are actually paid for or when the incomes are actually received is not significant m case of Mercantile or Accrual System of Accounting. As per the provisions of Section 209 of the Companies Act, 1956, all the company form of organizations are legally required to follow Mercantile or Accrual System of Accounting. Other organizations have a choice to select either of the systems of accounting.

Periodic matching of Costs and Revenues: This concept is based on the accounting period concept. It is widely accepted that desire of making profit is the most important motivation to keep the proprietors engaged in business activities. Hence a major share of attention of the accountant is being devoted towards evolving appropriate techniques of measuring profits. One such technique is periodic matching of costs and revenues.

In order to ascertain the profits made by the business during a period, the accountant should match the revenues of the period with the costs of that period. By 'matching' we mean appropriate association of related revenues and expenses pertaining to a particular accounting period. To put it in other words, profits made by a business in a particular accounting period can be ascertained only when the revenues earned during that period are compared with the expenses incurred for earning that revenue. The question as to when the payment was actually received or made is irrelevant. For e.g. In a business enterprise which adopts calendar year as accounting year, if rent for March 2017 was paid in April 201b, the rent so paid should be taken as the expenditure of the year 2016-17, revenues of the it year should be matched with the costs incurred for earning that revenue including the lent for March 2017, though paid in April 2018. It is on account of this concept that adjustments are made for outstanding expenses, accrued incomes, prepaid expenses etc. while preparing financial statements at the end of the accounting period. The system of accounting which follows this concept is called as mercantile system. In contrast to this there is another system of accounting called as cash system of accounting where entries are made only when cash is received or paid, no entry being made when a payment or receipt is merely due.

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Types of Accounting

1. Single Entry
2. Double Entry

Advantages of double entry system

1. Complete Record
2. Ascertainment of Profit
3. Knowledge of Financial Position
4. A Check on the Accuracy of Accounts
5. No Scope of Fraud
6. Tax Authorities

GLOSSARY OF IMPORTANT ACCOUNTING TERMS

Assets	All the properties owned by the business.
Account	Account is the record of all the transactions pertaining to a person, asset, liability, income or expenditure.
Balance Sheet	Balance Sheet is the summarized statement of what the business owns i.e. assets and what the business owes i.e. liabilities.
Bills Payable	Bills Payable indicates the amount payable to the suppliers.
Bills Receivable	Bills Receivable indicates the amount receivable from the customers.
Capital	Capital indicates the amount of funds invested by the owner in the business.
Creditor	A creditor is a supplier to whom the business owes money for the goods bought on credit.
Debtor	A debtor is a customer who owes money to the business for the goods supplied on credit.
Depreciation	Reduction in the value of fixed assets, which arise either due to time factor or use factor or both.
Drawings	The amount of funds or goods withdrawn by the owner of the business for his personal use.
Folio	Folio refers to the page number of the book of original entry or the ledger.
Journal	The Book of Original Entry where the financial transactions are recorded in the chronological order.
Ledger	The book where the transactions of the similar nature are pooled together under one Account.
Liabilities	All the amounts owed by the business to various providers of funds or services are collectively referred to as liabilities.

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1.6 BRANCHES OF ACCOUNTING

There are three Branches of Accounting viz. 1. Financial Accounting 2. Cost Accounting and 3. Management Accounting

1. **Financial Accounting**

   Financial Accounting is the process of systematic recording of the business transactions in the various books of accounts maintained by the organization with the ultimate intention of preparing the financial statements there from.

Characteristic features of Financial Accounting:

a. Financial Accounting considers those transactions, which can be expressed m terms of money.

b. Financial Accounting is referred to as the historical form of accounting.

c. Financial accounting is more or less a legal requirement.

d. Financial Accounting is meant for those people who are external to the organization. This class of people may consist of the people like investors, customers, suppliers, banks, financial institutions etc.

e. Financial Accounting discloses the financial performance and financial status of the business as a whole.

Financial accounting information is intended both for owners and managers and also for the use of individuals and agencies external to the business. This accounting is concerned with the recording of transactions for a business enterprise and the periodic preparation of various reports from such records. The records may be for general purpose or for a special purpose. A detailed account of the function of financial accounting has been given earlier in this lesson.

2. **Cost Accounting**

   Cost accounting developed as an advanced phase of accounting science and is trying to make up the deficiencies of financial accounts. It is essentially a creation of the twentieth century. Cost accounting accounts for the costs of a product, a service or an operation. It is concerned with actual costs incurred and the estimation of future costs. Cost accounting is a conscious and rational procedure used by accountants for accumulating costs and relating such costs to specific products or departments for effective management action. Cost accounting through its marginal costing technique helps the management in profit planning and through its another technique i.e., Standard costing facilitates cost control. In short, cost accounting is a management information system which analyses past, present and future data to provide the basis for managerial decision making.

Features of Cost Accounting

1. Cost Accounting includes three things:

   a. Cost Ascertainment: finding out the specific and precise total and unit costs of products and services.

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b. Cost Presentation: reporting cost data to various levels of management with a view to facilitate decision making.

c. Cost Control: this consists of estimating costs for production and activities for the future, and keeping them within proper limits. Budgets and standards are employed for this purpose.

2. Cost Accounting views the organization from the angle of individual components of the organization like a department, a job, a process etc.
3. Cost Accounting is meant for those people who are internal to the organization.
4. A hundred per cent accuracy is not insisted upon by cost accounting.
5. Cost accounting also aims at cost reduction, i.e., achieving a permanent and real reduction in cost by improving the standards.

Utility of Cost Accounting

A properly installed cost accounting system will help the management in the following ways:

a. The analysis of profitability of individual products, services or jobs.

b. The analysis of profitability of different departments or operations.

c. It locates differences between actual results and expected results.

d. It will assist in setting the prices so as to cover costs and generate an acceptable level of profit.

e. Cost accounting data generally serves as a base to which the tools and techniques of management accounting can be applied to make it more purposeful and management oriented.

f. The effect on profits of increase or decrease in output or shutdown of a product line or department can be analyzed by adoption of efficient cost accounting system.

Distinction between Costing and Cost Accounting

Costing is the technique and process of ascertaining costs. It tries to find out the cost of doing something, i.e., the cost of manufacturing an article, rendering a service, or performing a function. Cost accounting is a broader term, in that it tries to determine the costs through a formal system of accounting (unlike costing which can be performed even through informal means). Stated precisely, cost accounting is a formal mechanism by means of which costs of products and services are ascertained and controlled. The Institute of cost and management accountants, U.K. defines cost accounting as: the application of accounting and costing principles, methods and techniques in the ascertainment of costs and the analysis of savings and/or excesses as compared with previous experience or with standards.

Cost accountancy is a comprehensive term that implies the' application of costing and cost accounting principles, methods and techniques to the science, art and practice of cost control'. It seeks to control costs and ascertain the profitability of business operations. Cost accounting is the process of classifying and recording of the expenditure in a systematic

manner, with the intention of ascertaining the cost of a cost center with the intention of controlling the cost.

Distinction between Financial Accounting and Cost Accounting

Though there is much common ground between financial accounting and cost accounting and though in fact cost accounting is an outgrowth of financial accounting yet the emphasis differs Rs. Firstly, financial accounting is more attached with reporting the results of business to persons other than internal management - government, creditors, investors, researchers, etc. Cost accounting is an internal reporting system for an organization's own management for decision making. Secondly financial accounting data is historical in nature and its periodicity of reporting is much wider. Cost accounting is more concerned with short-term planning and its reporting period much lesser than financial accounting. It not only deals with historic data but also is futuristic in approach. Thirdly, in financial accounting the major emphasis in cost classification is based on the type of transaction e.g., Salaries, repairs, insurance, stores, etc. But in cost accounting the major emphasis is on functions, activities, products, processes and on internal Planning and control and information needs of the organization.

3. **Management Accounting**

   Management Accounting is the process of analysis and interpretation of financial data collected with the help of financial accounting and cost accounting, with the ultimate intention to draw certain conclusions there from, in order to assist the management in the process of decision-making.

Definition of Management Accounting

The Institute of Chartered Accountants of England and Wales has defined management accounting as "any form of accounting which enables a business to be conducted more efficiently".

Management accounting employs both historical and estimated data in assisting management in daily operations and in planning for future operations. It deals with specific problems that confront enterprise managers at various organizational levels. The management accountant is frequently concerned with identifying alternative courses of action and then helping to select the best one. For e.g. The accountant may help the finance manager in preparing plans for future financing or may help the sales manager in determining the selling price to be fixed on a new product by providing suitable data. Generally, management accounting information is used in three important management functions: (I) control (2) co-ordination and (3) planning. Marginal costing is an important technique of management accounting which provides multi-dimensional information that facilitates decision making.

1.7 ACCOUNTING CONCEPTS

The rules and conventions of accounting are commonly referred to as principles. The American Institute of certified public accountants has defined the accounting principle as,

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"a general law or rule adopted or professed as a guide to action; a settled ground or basis of conduct or practice". It may be noted that the definition describes the accounting principle as a general law or rule that is to be used as a guide to action.

The Canadian Institute of chartered accountants has defined accounting principles as, "the body of doctrines commonly associated with the theory and procedure of accounting, serving as explanation of current practices and as a guide for the selection of conventions or procedures where alternatives exist". This definition also makes it clear that accounting principles serve as a guide to action.

The peculiar nature of accounting principles is that they are manmade unlike the principles of physics, chemistry etc. They were not deducted from basic axiom. Instead, they have evolved. This has been clearly brought out by the Canadian Institute of chartered accountants in the second part of their definition on accounting principles: "rules governing the foundation of accounting actions and the principles derived from them have arisen from common experiences, historical precedent, statements by individuals and professional bodies and regulation of governmental agencies". Since the accounting principles are manmade, they cannot be static and are bound to change in response to the changing needs of the society. It may be stated that accounting principles are changing but the change in them is permanent.

Accounting principles are judged on their general acceptability to the makers and users of financial statements and reports. They present a generally accepted and uniform view of the accounting profession in relation to good accounting practice and procedures. Hence the name generally accepted accounting principles.

Accounting principles, rules of conduct and action are described by various terms such as concepts, conventions, doctrines, tenets, assumptions, axioms, postulates, etc. But for our purpose we shall use all these terms synonymously except for a little difference between the two terms - concepts and conventions. The term "concept" is used to connote accounting postulates i.e., Necessary assumptions or conditions upon which accounting is based. The term convention is used to signify customs or traditions as a guide to the preparation of accounting statements.

In order to bring uniformity to the recording of business transactions, the accountants follow certain basic procedures universally. These are referred to as the Accounting Principles. The Accounting Principles can be classified in two categories:

1. Accounting Concepts
2. Accounting Conventions

Accounting Concepts

Accounting Concepts indicate those basic assumptions upon which the basic process of accounting is based. The important accounting concepts are discussed hereunder:

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a. Business Entity Concept

It is generally accepted that the moment a business enterprise is started it attains a separate entity as distinct from the persons who own it. In recording the transactions of a business, the important question is: How do these transactions affect the business enterprise? The question as to how these transactions affect the proprietors is quite irrelevant. This concept is extremely useful in keeping business affairs strictly free from the effect of private affairs of the proprietors. In the absence of this concept the private affairs and business affairs are mingled together in such a way that the true profit or loss of the business enterprise cannot be ascertained nor its financial position. To quote an example, if a proprietor has taken Rs. 5000/- from the business for paying house tax for his residence, the amount should be deducted from the capital contributed by him. Instead, if it is added to the other business expenses then the profit will be reduced by Rs. 5000/- and also his capital more by the same amount. This affects the results of the business and also its financial position. Not only this, since the profit is lowered, the consequential tax payment also will be less which is against the provisions of the income-tax act.

The business is assumed to be a distinct entity than the person who owns the business. The accounting process is carried out for the business and not for the person who owns the business. If there is a company carrying on the business in the name of M/s. XYZ private Ltd., where Mr. A and Mr. B are the shareholders, M/s. XYZ private Ltd. is supposed to be a separate entity from Mr. A and Mr. B.

b. Going Concern Concept

This concept assumes that the business enterprise will continue to operate for a fairly long period in the future. The significance of this concept is that the accountant while valuing the assets of the enterprise does not take into account their current resale values as there is no immediate expectation of selling it. Moreover, depreciation on fixed assets is charged on the basis of their expected life rather than on their market values. When there is conclusive evidence that the business enterprise has a limited life, the accounting procedures should be appropriate to the expected terminal date of the enterprise. In such cases, the financial statements could clearly disclose the limited life of the enterprise and should be prepared from the 'quitting concern' point of view rather than from a 'going concern' point of view. The business organization is going to be in existence for an indefinitely longer period of time and is not likely to close down the business in the shorter period of time.

c. Money Measurement Concept

Accounting records only those transactions which can be expressed in monetary terms. This feature is well emphasized in the two definitions on accounting as given by the American Institute of Certified Public Accountants and the American Accounting Principles Board. The importance of this concept is that money provides a common denomination by means of which heterogeneous facts about a business enterprise can be expressed and measured in a much better way. For e.g. When it is stated that a

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business owns Rs. 1,00,000 cash, 500 tons of raw material, 10 machinery items, 3000 square meters of land and building etc., these amounts cannot be added together to produce a meaningful total of what the business owns.

However, by expressing these items in monetary terms such as Rs. 1,00,000 cash, Rs. 5,00,000 worth raw materials, Rs. 10,00,000 worth machinery items and Rs. 30,00,000 worth land and building - such an addition is possible. Only those transactions and facts find the place in accounting, which can be expressed in terms of money.

A serious limitation of this concept is that accounting does not take into account pertinent non-monetary items which may significantly affect the enterprise. For instance, accounting does not give information about the poor health of the chairman, serious misunderstanding between the production and sales manager etc., which have serious bearing on the prospects of the enterprise. Another limitation of this concept is that money is expressed in terms of its value at the time a transaction is recorded in the accounts. Subsequent changes in the purchasing power of money are not taken into account.

1. Cost Concept

This concept is yet another fundamental concept of accounting which is closely related to the going-concern concept. As per this concept:

a. An asset is ordinarily entered in the accounting records at the price paid to acquire it i.e., at its cost and

b. This cost is the basis for all subsequent accounting for the asset.

The implication of this concept is that the purchase of an asset is recorded in the books at the price actually paid for it irrespective of its market value. For e.g. If a business buys a building tor Rs. 3,00,000, the asset would be recorded in the books as Rs. 3,00,000 even if its market value at that time happens to be Rs. 4,00,000. However, this concept does not mean that the asset will always be shown at cost. This cost becomes the basis for all future accounting of the asset. It means that the asset may systematically be reduced in its value by changing depreciation. The significant advantage of this concept is that it brings in objectivity in the preparations and presentation of financial statements. But like the money measurement concept, this concept also does not take into account subsequent changes in the purchasing power of money due to inflationary pressures. This is the reason for the growing importance of inflation accounting.

The assets acquired by the organization are recorded at their cost of acquisition and this cost is considered for all the subsequent accounting purposes say charging of depreciation. This concept does not take into consideration current market prices of the various assets.

2. Dual Aspect Concept (Double Entry System):

This concept is the core of accounting. According to this concept every business transaction has a dual aspect. This concept proposes that every business transaction has two aspects. Every debit has corresponding credit. This concept is explained in detail below:

The properties owned by a business enterprise are referred to as assets and the rights or claims to the various parties against the assets are referred to as equities. The relationship between the two may be expressed in the form of an equation as follows:

Equities = Assets

Equities may be subdivided into two principal types: the rights of creditors and the rights of owners. The rights of creditors represent debts of the business and are called liabilities. The rights of the owners are called capital.

Expansion of the equation to give recognition to the two types of equities results in the following which is known as the accounting equation:

Liabilities + Capital = Assets

It is customary to place 'liabilities' before 'capital' because creditors have priority in the repayment of their claims as compared to that of owners. Sometimes greater emphasis is given to the residual claim of the owners by transferring liabilities to the other side of the equation as:

Capital=Assets - Liabilities

All business transactions, however simple or complex they are, result in a change in the three basic elements of the equation.

This is well explained with the help of the following series of examples:

a. Mr. Prakash commenced business with a capital of Rs. 3,000: the result of this transaction is that the business, being a separate entity, gets cash-asset of Rs. 30,000 and has to pay to Mr. Prakash Rs. 30,000, his capital. This transaction can be expressed in the form of the equation as follows:

Liabilities'		Assets	
Particulars	Amount	Particulars	Amount
Prakash Capital A/c	30000	Cash on Hand	
Total	30000	Total	30000

b. Purchased furniture tor Rs. 5,000: the effect of this transaction is that cash is reduced by Rs. 5,000 and a new asset viz. Furniture worth Rs. 5,000 comes in, thereby, rendering no change in the total assets of the business. The equation after this transaction will be:

Liabilities'		Assets	
Particulars	Amount	Particulars	Amount

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Prakash Capital A/c	30000	Cash on Hand	25000
		Furniture	5000
Total	30000	Total	30000

c. Borrowed Rs. 20,000 from Bank: as a result of this transaction both the sides of the equation increase by Rs. 20,000; cash balance is increased and a liability to Bank is created. The equation will appear as follows:

Liabilities'		Assets	
Particulars	Amount	Particulars	Amount
Prakash Capital A/c	30000	Cash on Hand	45000
Bank Loan	20000	Furniture	5000
Total	50000	Total	50000

d. Purchased goods for cash Rs. 30,000: This transaction doc not affect the liabilities side total or the asset side total. Only the composition of the total assets changes i.e., Cash is reduced by Rs. 30,000 and a new asset viz. Stock worth Rs. 30,000 comes in. The equation after this transaction will be a follow:

Liabilities'		Assets	
Particulars	Amount	Particulars	Amount
Prakash Capital A/c	30000	Cash on Hand	15000
Bank Loan	20000	Furniture	5000
		Stock	30000
Total	50000	Total	50000

e. Goods worth Rs. 10,000 are sold on credit to Vishal for Rs. 12,000. The result is that stock is reduced by Rs. 10,000 a new asset namely debtor (Mr. Vishal) for Rs. 12,000 comes into picture and the capital of Mr. Prakash increases by Rs. 2,000 as the profit on the sale of goods belongs to the owner. Now the accounting equation will look as under:

Liabilities'		Assets	
Particulars	Amount	Particulars	Amount
Prakash Capital A/c	30000	Cash on Hand	15000
Bank Loan	20000	Furniture	5000
Profit	2000	Stock	20000
		Debtors	12000
Total	52000	Total	52000

f. Paid electricity charges Rs. 300: this transaction reduces both the cash balance and Mr. Prakash s capital by Rs. 300. This is so because the expenditure reduces the

business profit which in turn reduces the equity.

Liabilities'		Assets	
Particulars	Amount	Particulars	Amount
Prakash Capital A/c	30000	Cash on Hand	14700
Bank Loan	20000	Furniture	5000
Profit	1700	Stock	20000
		Debtors	12000
Total	51700	Total	51700

Thus, it may be seen that whatever is the nature or transaction, the accounting equation always tallies and should tally. The system of recording transactions based on this concept is called double entry system.

1. **Accounting Period Concept**

   In accordance with the going concern concept, it is usually assumed that the life of a business is indefinitely long. But owners and other interested parties cannot wait until the business has been wound up for obtaining information about its results and financial position. For e.g. If for ten years no accounts have been prepared and if the business has been consistently incurring losses, there may not be any capital at all at the end of the tenth year which will be known only at that time. This would result in the compulsory winding up of the business. But, if at frequent intervals information is made available as to how things are going, then corrective measures may be suggested and remedial action may be taken.

   Life span of the business is divided into shorter time segments, each one being in the form of Accounting Period. Profitability is computed for this accounting period (by preparing the profitability statement) and the financial position is assessed at the end of this accounting period (by preparing the balance sheet). The normal accounting period foremost of the firms is a period of 12 months from 1st April to 31st March. According to this concept accounting measures activities for a specified interval of time called the accounting period. For the purpose of reporting to various interested parties one year is the usual accounting period.

2. **Matching Concept**

   While calculating the profit for the accounting period in a correct manner, the expenses and costs incurred during the period, whether paid or not, should be matched with the revenues generated during the period. For example, if the accounting period ends on 31st March, the salaries for the month of March should be considered as the cost for the year ending on 31st March, even if they are actually paid for in the month of April.

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1.8 ACCOUNTING CONVENTIONS

1. **Convention Of Conservatism**

Be liberal when estimating expenses and be conservative when estimating income. It is a world of uncertainty. So, it is always better to pursue the policy of playing safe. This is the principle behind the convention of conservatism. According to this convention the accountant must be very careful while recognizing increases in an enterprise's profits rather than recognizing decreases in profits. For this the accountants have to follow the rule, anticipate no profit, provide for all possible losses, while recording business transactions. It is on account of this convention that the inventory is valued at cost or market price whichever is less, i.e. When the market price of the inventories has fallen below its cost price it is shown at market price i.e. The possible loss is provided and when it is above the cost price it is shown at cost price i.e. The anticipated profit is not recorded. It is for the same reason that provision for bad and doubtful debts, provision for fluctuation in investments, etc., are created. This concept affects principally the current assets.

2. **Convention Of Full Disclosure**

The emergence of joint stock company forms of business organization resulted in the divorce between ownership and management. This necessitated the full disclosure of accounting information about the enterprise to the owners and various other interested parties. Thus, the convention of full disclosure became important. By this convention it is implied that accounts must be honestly prepared and all material information must be adequately disclosed therein. But it does not mean that all information that someone desires are to be disclosed in the financial statements. It only implies that there should be adequate disclosure of information which is of considerable value to owners, investors, creditors, government, etc. In Sachar committee report (1978), it has been emphasized that openness in company affairs is the best way to secure responsible behavior. It is in accordance with this convention that companies act, banking companies' regulation act, insurance act etc., have prescribed proforma of financial statements to enable the concerned companies to disclose sufficient information. The practice of appending notes relating to various facts on items which do not find place in financial statements is also in pursuance to this convention. The following are some examples:

1. Contingent liabilities appearing as a note.
2. Market value of investments appearing as a note.
3. Schedule of advances in case of banking companies.

3. **Convention of consistency**

Follow the accounting practice for a considerably long time. Do not change the practice every now and then. According to this concept it is essential that accounting procedures, practices and method should remain unchanged from one accounting period to another. This enables comparison of performance in one accounting period

with that in the past. For e.g. If material issues are priced on the basis of FIFO method the same basis should be followed year after year. Similarly, if depreciation is charged on fixed assets according to diminishing balance method it should be done in subsequent year also. But consistency never implies inflexibility as not to permit the introduction of improved techniques of accounting. However, if introduction of a new technique results in inflating or deflating the figures of profit as compared to the previous methods, the fact should be well disclosed in the financial statement.

Convention of Materiality

The amount involving small amounts which do not have material impact the profitability may be treated as revenue expenditure even though they are capital expenditure. Example, Books, Sign boards etc. The implication of this convention is that accountant should attach importance to material details and ignore insignificant ones. In the absence of this distinction, accounting will unnecessarily be overburdened with minute details. The question as to what is a material detail and what is not is left to the discretion of the individual accountant. Further, an item should be regarded as material if there is reason to believe that knowledge of it would influence the decision of informed investor. Some examples of material financial information are: fall in the value of stock,

Loss of markets due to competition, change in the demand pattern due to change in government regulations, etc. Examples of insignificant financial information are: rounding of income to nearest ten for tax purposes etc. Sometimes if it is felt that an immaterial item must be disclosed, the same may be shown as footnote or in parenthesis according to its relative importance.

1.9 CAPITAL AND REVENUE RECEIPTS AND PAYMENTS

Expenditure (Payments) can be grouped into the following categories

1. Capital Expenditure
2. Revenue Expenditure
3. Deferred Revenue Expenditure

Capital expenditure

Capital expenditure is that expenditure, the benefit of which is not fully consumed in one period but spreads over periods i.e., the benefits are expected to accrue for a long time. Any expenditure which gives the following outcomes is a capital expenditure:

a. Increases the capacity of an existing asset.
b. Increases the life of an existing asset.
c. Increases the earning capacity of the concern.
d. Results in the acquisition of a new asset.
e. Decreases the cost of production.

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Capital Expenditure indicates the amount of funds paid for acquiring the infrastructural properties required for doing business, which are technically referred to as Fixed Assets. Fixed Assets do not give the returns during the same period during which they are paid for. As such, benefits available from capital expenditure are long-term benefits.

Following are the examples of capital expenditure:

a. Expenditure resulting in the acquisition of fixed assets e.g., Land, building, machines, etc.

b. Expenditure resulting in extension or improvement of fixed assets e.g., Amount spent on increasing the seating accommodation in the picture hall.

c. Expenditure in connection with installation of a fixed asset.

d. Expenditure incurred for acquiring the right to carry on a business e.g., Patents, copyright, etc.

e. Major repairs and replacements of parts resulting in increased efficiency of a fixed asset.

f. An expenditure cannot be said to be a capital expenditure only because:

- The amount is large.
- The amount is paid in lump sum.
- The amount is paid out of that fund which has been received out of the sale of fixed asset.
- The receiver of the amount is going to treat it for the purchase of fixed asset.

Revenue Expenditure:

An expenditure which is consumed during the current period and which affects the income of the current period is called revenue expenditure. Also, an expenditure which merely seeks to maintain the business of high assets in good working conditions is revenue expenditure.

Revenue Expenditure indicates the amount of funds paid during a certain period with the intention to receive the return during the same period. The entire amount of revenue expenditure affects the Profitability Statement.

Following are the examples of revenue expenditure:

a. Expenses of administration, expenses incurred in manufacturing and selling products.

b. Replacements for maintaining the existing permanent assets.

c. Costs of goods purchased for resale.

d. Depreciation on fixed assets, interest on loans for business, etc.

Distinction between Capital and Revenue Expenditure:

The proper distinction between capital and revenue as regard to expenditure, payments, profits, receipts and losses is one of the fundamental principles of correct accounting. It is very essential that in all cases this distinction should be rigidly observed and amounts

rightly allocated between capital and revenue. Failure or neglect to discriminate between the two will falsify the whole of the results of accounting. However, the distinction is not always easy. In actual practice there is a good deal of difference of opinion as to whether a particular item is capital or revenue expenditure. However, the rules mentioned above may service as a guide for making distinction between capital and revenue expenditure.

Deferred Revenue Expenditure:

Deferred Revenue Expenditure indicates the amount of funds paid, which does not result into the acquisition of any fixed asset. However, at the same time benefits from this expenditure are not received during the same period during which they are paid for Revenue expenditure treated like capital expenditure. The examples of Deferred Revenue Expenditure are -

a. Initial Advertisement Expenditure.
b. Research and Development Expenditure.
c. In case of company form of organization, Preliminary Expenses or Company Formation Expenses.

A heavy expenditure of revenue nature incurred for getting benefit over a number of years is classified as deferred revenue expenditure. In some cases, the benefit of revenue expenditure may be available for a period of two or three or even more years. Such expenditure is to be written off over a period of two or three years and not wholly in the year in which it is incurred. For example, a new firm may advertise very heavily in the beginning to capture a position m the market. The benefit of this advertisement campaign will last quite a few years. It will be better to write off the expenditure in three or four years and not only in the first year.

Some other examples of deferred revenue expenditure are preliminary expenses, brokerages on issue of shares and debentures, exceptional repairs, discount on issue of shares or debentures, expenses incurred in removing the business to more convenient premises and so on.

Capital Receipts and Revenue Receipts

The distinction between capital receipts and revenue receipts is also important. Money obtained from the sale of fixed assets of investments, issue of shares, debentures, money obtained by way of loans are examples of capital receipts. On the other hand, revenue receipts are cash from sales, commission received, interest on investments, transfer fees, etc. Capital receipts are shown in the balance sheet and revenue receipts in the profit and loss account.

a. Capital Receipts

Capital Receipts refer to the funds received by the organization in the form of capital i.e., Debt or equity.

- It is a financing activity.
- It is shown on the liability side of the balance sheet.

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- It needs to be repaid over a period of time.
- It is a non-recurring activity

Examples: Loans taken from Banks. Share issued to shareholders. Sale of fixed assets.

b. Revenue Receipts

Revenue Receipts refer to the funds received by the organization in the form of sale of their goods and services.

- It is shown on the Income (Credit) side of the Trading account of Profit and Loss statement.
- It need not be repaid since it is the income of the firm.
- It is a recurring activity

Examples: Sale of finished products, Rent Received, Interest received.

Capital and Revenue Profits

Capital profit is a profit made on the sale of a fixed asset or a profit earned on getting capital for the business. For example, if the original cost of a fixed asset is Rs. 50,00,000 and if it is sold for Rs. 60,00,000 then Rs. 10,00,000 is capital profit. Similarly, if the shares having an original cost of Rs. 4,000 are sold for Rs. 5,000; the profit of Rs. 1,000 thus made is capital profit. Capital profits should not be transferred to the profit and loss account but should be transferred to capital reserve which would appear as a liability in the balance sheet. Revenue profit, on the other hand, is a profit by trading, e.g., Profit on sale of goods, income from investments, discount received, commission earned, rent received, interest earned etc. Such profits are taken to profit and loss account.

Capital and Revenue Losses

Capital losses arc those losses which occur at selling fixed assets or raising share capital. For e.g., if investments having an original cost of Rs. 20,000 are sold for Rs. 16,000, there will be a capital loss of Rs. 4,000. Similarly, when the shares of the face value of Rs. 100 are issued for Rs. 90, the amount of discount i.e., Rs. 10 per share will be a capital loss. Capital losses should not be debited to profit and loss account but may be shown on the asset side of balance sheet. As and when capital profits arise, losses are met against them. Revenue losses are those losses which arise during the normal course of business i.e., in trading operations such as losses on the sale of goods. Such losses are debited to profit and loss account.

EXAMPLE: State which of the following expenditures are capital in nature and which are revenue in nature:

Freight and cartage on the new machine Rs. 150; erection charges Rs. 200.

A sum of Rs. 10,000 on painting the new factory.

Fixtures of the book value of Rs. 1,500 were sold off at Rs. 600 and new fixtures of the value of Rs. 1,000 were acquired, cartage on purchase Rs. 50.

Rs. 1,000 spent on repairs before using a second-hand car purchased recently.

Solution: Capital expenditure to be debited to machinery account.
Painting charges of new or old factory are maintenance charges and be charged to revenue. However, if felt proper, painting charges of new factory may be treated as deferred revenue expenditure. However, some say painting of new factory is capital expenditure.

Loss of Rs. 900 on the sale of fixtures be treated as revenue expense but the cost of new fixture Rs. 1,000 together with cartage Rs. 50 be debited to fixture account as these are capital expenditure.

Rs. 1,000 being expense to bring the asset in usable condition is a capital expenditure.

EXAMPLE: The sum of Rs. 30,000 has been spent on a machine as follows:

Rs. 20,000 for additions to increase the output; Rs. 12,000 for repairs necessitated by negligence and Rs. 8,000 for replacement of worn-out parts.

The sum of Rs. 17,200 was spent on dismantling, removing and reinstalling in order to remove their works to more suitable premises. Classify these expenses into capital and revenue.

Solution: Rs. 20,000 spent on additions is to be capitalized but Rs. 12,000 and Rs. 8,000 spent on repairs and replacement of worn-out parts respectively are to be charged to revenue.

Rs. 17,200 spent for removing to a more suitable premises is to be charged to revenue as it does not increase efficiency and income. It, may, however be treated as deferred revenue at the most.

Capital profit is also called as none operating income is an income which is earned due to Profit on sale of fixed assets or an income which is earned at the time of issue of shares and debentures with a Premium.

EXAMPLE: Book value of Machinery is Rs 45,000 and it is sold for Rs 50,000. Here, Non-operating income is Rs 5,000.

Solution: Capital loss is also called as none operating loss is a loss which is incurred due to loss on sale of fixed assets or any cost incurred at the time of promotion of business-like discount on issue of shares and debentures.

1.10 FORMS OF BUSINESS ORGANISATIONS

The finance function of the organization is greatly affected by the forms of organization. The form of business organization means the basic constitution of the organization in which it is set. It is generally defined by its ownership. The owners are persons who own the business organization and they are major source of finance for the organization. The various laws applicable to business entities as well as the mode of conducting business

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depend upon the form of business organization in practical circumstances; we come across basically three forms of business organizations.

1. Proprietary Firms
2. Partnership Firms
3. Joint Stock Company

1. PROPRIETARY FIRMS

In this case, only one person is the owner of the business who is called as the "Proprietor' and the same person is the manager. All the profits earned by the business belong to the proprietor and he is liable for the losses and liabilities of the business.

Advantages:

a. Proprietary Firm is the easiest and most economical form of business organization to form and operate. Not many of the government regulations are applicable to the Proprietary Firms.

b. This form of organization is very suitable where the size of the business is small and the complexities involved in the business are comparatively less. However, if the size of the business increases or the complexities in the business operations grows, this form may prove to be insufficient.

Disadvantages:

a. This form of organization does not have any legal status. The proprietary firms exist due to the existence of the proprietor. If the proprietor ceases to be in existence, the firm ceases to be in existence.

b. As only one person is the owner and the manager, the capacity of the business to raise funds and to cope up with complex business operations is comparatively limited.

c. Proprietary firm is always an unlimited liability organization. In the sense, if the assets of the firm are insufficient to meet its liabilities, personal property of the proprietor is always at stake.

d. The income of the proprietary firm is clubbed with the individual income of the proprietor. As such, effective rate of income tax which the proprietor may be required to pay is likely to be higher.

e. It is not possible to transfer the ownership of the business to somebody else without affecting the basic constitution of the business.

2. PARTNERSHIP FIRMS

In this case, more than two persons but less than twenty persons come together and form a partnership firm. Each of these partners is the owner of the business in the proportion decided among them. Partnership is a contract among the partners and the relationship among the partners is governed on the basis of terms and conditions laid down in an official and written document called as "partnership deed" or "partnership agreement".

Advantages:

a. This form of organization is also reasonably easy and economical to form and operate.

b. As resources of more than one person are pooled together, capacity of the business to handle more complex business operations or operations requiring more amounts of funds is better as compared to the proprietary firms.

c. The tax structure applicable to the partnership firms is fairly reasonable. While calculating the profit of the partnership firm, following amounts can be claimed by the firm as the allowable expenditure.

- The firm can pay interest on capital to the partners on the amount of capital introduced by them in the business.
- The firm can remunerate the partners in the form of salary, bonus, commission etc. provided that the partners are "working partners".

d. Not many of the government regulations are applicable to the partnership links.

Disadvantages

This form of organization also does not have any legal status. The partnership links exist due to the existence of the partners. If the partners cease to be in existence, the firm ceases to be in existence. The retirement or death of a partner leads to the dissolution of the partnership firm.

a. The capacity of the business to raise the funds and to cope up with the complex business operations is comparatively limited though it is more than that of the proprietary firms.

b. Partnership firm is also an unlimited liability organization. In the sense, if the assets of the firm are insufficient to meet its liabilities, personal property of the partners is always at stake.

c. It is not possible to transfer the ownership of the business to somebody else without affecting the basic constitution of the business.

3. JOINT STOCK COMPANIES

Joint stock companies have become a major form of organization in the recent past. This form of organization can raise large amount of funds as the resources of larger number of people can be pooled together. In this case, the total requirement of funds of the organization is split into smaller units, each of such units being called as a 'share'. Each such share carries a denomination value which is called as 'face value' or 'nominal value'. An individual can participate in the capital requirement of an organization by purchasing the shares of the company and he becomes the part owner of the company to the extent of his shareholding in the overall amount of capital of the company. Such shareholder can exercise his ownership rights through the voting rights offered to him.

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The joint stock companies have the following characteristic features.

a. All the joint stock companies have a legal entity separate from their owner viz. shareholders. They gain the legal status by being registered under Companies Act, 1956, which governs and regulates the operations of all joint stock companies in India. As legal entities, the joint stock companies can own assets, incur liabilities, enter into contracts, sue and be sued. The shareholders of the company cannot be held liable for the actions of the company.

b. Generally, all joint stock companies are limited liability organizations and the liability of the shareholders is limited to the extent of amount of shares they undertake to purchase. For example, If Mr. A undertakes to purchase 100 shares of a company of Rs. 100 each, his liability ceases once he pays Rs. 10,000 to the company. His personal property is never in danger despite the losses and liabilities incurred by the company.

c. Segregation of ownership and management is a typical feature of joint stock companies. In case of the companies, shareholders are the owner. However, due to large number of shareholders and their wide geographical spread, it may not be possible for the shareholders to exercise their ownership rights by participating in the day-to-day affairs of the company. As such, the shareholders appoint their representatives (viz. directors) to manage the day-to-day affairs of the company. In case of joint stock companies, shareholders are the owners while directors/board of directors are the managers.

d. Transferability of shares is a feature of a joint stock company. A shareholder can transfer his ownership rights in the company by transferring his shares to some other person. In case of public limited companies, shares are freely transferable and such transfer can be greatly facilitated if the shares are listed on the stock exchange. In case of private limited companies, there may be some restrictions on the transfer of shares.

   Being an artificial legal person, the company enjoys a perpetual existence. The company can die only a legal death, after complying with the prescribed legal formalities. There is a very famous case under the Companies Act, where during the war, all the members of a private company, while in meeting, were killed by a bomb, but the company survived.

e. A company is an artificial legal person who does not have a body like a natural person and hence it cannot sign any documents. However, being a legal personality, it is bound only by those documents which bear its signature. Hence, as a substitute to the signature, the law provides for the use of common seal. Any document having the common seal and witnessed by at least two directors is binding on the company legally.

Advantages:

a. The capacity of the corporate organizations to raise the funds is comparatively high. As the number of persons contributing to the requirement of funds is large, it is possible to raise large amount of funds.

b. As the company has a separate legal entity, apart from its owner's viz. shareholders, the personal property of the shareholders is generally not in danger.

c. Transferability of shares is a facility available to the shareholders. If the shareholders want to release their investment in shares, they can transfer their shares to any other person. However, it should be remembered that in case of private limited companies, the shares are not freely transferable.

Disadvantages:

The company form of organization is subjected to elaborate legal and procedural formalities to be complied with, not only for the purpose of formation but also for the regular operation. The basic applicable law in this connection is in the form of Companies Act, 1956. However, it should be noted that in case of private limited companies, these formalities are less rigorous in nature.

1.11 GROUPS INTERESTED IN ACCOUNTING INFORMATION

There are several groups of people who are interested in the accounting information relating to the business enterprise. Following are some of them:

Shareholders: Shareholders as owners are interested in knowing the profitability of the business transactions and the distribution of capital in the form of assets and liabilities. In fact, accounting developed several centuries ago to supply information to those who had invested their funds in business enterprise.

Management: With the advent of Joint Stock Company form of organization, the gap between ownership and management widened. In most cases the shareholders act merely as renders of capital and the management of the company passes into the hands of professional managers. The accounting disclosures greatly help them in knowing about what has happened and what should be done to improve the profitability and financial position of the enterprise.

Potential Investors: An individual who is planning to make an investment in a business would like to know about its profitability and financial position. An analysis of the financial statements would help him in this respect.

Creditors: As creditors have extended credit to the company, they are much worried about the repaying capacity of the company. For this purpose, they require its financial statements, an analysis of which will tell about the solvency position of the company.

Government: Any popular government has to keep a watch on big businesses regarding the manner in which they build business empires without regard to the interests of the community. Restricting monopolies is something that is common even in capitalist countries. For this, it is necessary that proper accounts are made available to the government. Also, accounting data are required for collection of sale-tax, income-tax, excise duty etc.

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Employees: Like creditors, employees are interested in the financial statements in view of various profit sharing and bonus schemes. Their interest may further increase when they hold shares of the companies in which they are employed.

Researchers: Researchers are interested in interpreting the financial statements of the concern for a given objective.

Citizens: Any citizen may be interested in the accounting records of business enterprises including public utilities and government companies as a voter and tax payer.

1.12 THE PROFESSION OF ACCOUNTING

Accountancy can very well be viewed as a profession with stature comparable to that of law or medicine or engineering. The rapid development of accounting theory and techniques especially after the late thirties of 20th century has been accompanied by an expansion of the career opportunities in accounting and an increasing number of professionally trained accountants. Among the factors contributing to this growth has been the increase in number, size and complexity of business enterprises, the imposition of new and increasingly complex taxes and other governmental restrictions on business operations.

Coming to the nature of accounting function, it is no doubt a service function. The chief of accounting department holds a staff position which is quite in contra - distinction to the roles played by production or marketing executives who hold line authority. The role of the accountant is advisory in character. Although accounting is a staff function performed by professionals within an organization, the ultimate responsibility for the generation of accounting information, whether financial or managerial, rests with management. That is why one of the top officers of many businesses is the financial controller. The controller is the person responsible for satisfying other managers' demands for management accounting information and for complying with the regulatory demands of financial reporting. With these ends in view, the controller employs accounting professionals in both management and financial accounting.

These accounting professionals employed in a particular business firm are said to be engaged in private accounting. Besides these, there are also accountants who render accounting services on a fee basis through staff accountants employed by them. These accountants are said to be engaged in public accounting.

Specialized Accounting Fields

As in many other areas of human activity, a number of specialized fields in accounting also have evolved besides financial accounting. Management accounting and cost accounting are the result of rapid technological advances and accelerated economic growth. The most important among them are explained below:

1. **Tax Accounting:**
   Tax accounting covers the preparation of tax returns and the consideration of the tax implications of proposed business transactions or alternative courses of action.

Accountants specializing in this branch of accounting are familiar with the tax laws affecting their employer or clients and are up to date on administrative regulations and court decisions on tax cases.

2. **International Accounting:**
This accounting is concerned with the special problems associated with the international trade of multinational business organizations. Accountants specializing in this area must be familiar with the influences that custom, law and taxation of various countries bring to bear on international operations and accounting principles.

3. **Social Responsibility Accounting:**
This branch is the newest field of accounting and is the most difficult to describe concisely. It owes its birth to increasing social awareness which has been particularly noticeable over the last three decades or so. Social responsibility accounting is so called because it not only measures the economic effects of business decisions but also their social effects, which have previously been considered to be immeasurable. Social responsibilities of business can no longer remain as a passive chapter in the text books of commerce but are increasingly coming under greater scrutiny. Social workers and people's welfare organizations arc drawing the attention of all concerned towards the social effects of business decisions.

   The management is being held responsible not only for the efficient conduct of business as reflected by increased profitability but also for what it contributes to social well-being and progress.

4. **Inflation Accounting:**
Inflation has now become a world-wide phenomenon. The consequences of inflation are dire in case of developing and underdeveloped countries. At this juncture when financial statements or reports are based on historical costs, they would fail to reflect the effect of changes in purchasing power or the financial position and profitability of the firm.

   Thus, the utility of the accounting records, not taking care of price level changes is seriously lost. This imposes a demand on the accountants for adjusting financial accounting for inflation to know the real financial position and profitability of a concern. Thus, a future branch of accounting called inflation accounting or accounting for price level changes emerged. It is a system of accounting which regularly records all items in financial statements at their current values.

5. **Human Resources Accounting:**
Human resources accounting is yet another new field of accounting which seeks to report and emphasize the importance of human resources in a company's earning process and total assets. It is based on the general agreement that the only real long-lasting asset which an organization possesses is the quality and caliber of the people working in it. This system of accounting is concerned with, "the process of identifying and measuring data about human resources and communicating this information to interested parties".

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1.13 CONCEPT OF PROCESS OF ACCOUNTING

During the accounting period the accountant records transactions as and when they occur. At the end of each accounting period the accountant summarizes the information recorded and prepares the trial balance to ensure that the double entry system has been maintained. This is often followed by certain adjusting entries which are to be made to account the changes that have taken place since the transactions were recorded. When the recording aspect has been made as complete and up to-date as possible the accountant prepares financial statements reflecting the financial position and the results of business operations. Thus, the accounting process consists of three major parts:

- The recording of business transactions during that period;
- The summarizing of information at the end of the period and
- The reporting and interpreting of the summary information.

Sequence of Accounting

A Financial Transaction.	A transaction involving receipt or payment of money
Journalizing:	Recording
Ledger Posting	Classifying
Trial Balance	Summarizing
Balance Sheet and Profit and loss Account	Reporting
Ratios and cash flow statement	Analyzing

1.14 TYPES OF ACCOUNTS

The Account

The transactions that take place in a business enterprise during a specific period may result in increases and decreases in assets, liabilities, capital, revenue and expense items. To make up to-date information available when needed and to be able to prepare timely periodic financial statements, it is necessary to maintain a separate record for each item. For e.g. It is necessary to have a separate record devoted exclusively to record increases and decreases in cash, another one to record increases and decreases in supplies, a third one on machinery, etc. The type of record that is traditionally used for this purpose is called an account. Thus, an account is a statement wherein information relating to an item or a group of similar items is accumulated.

The simplest form of an account has three parts:

1. A title which gives the name of the item recorded in the account.
2. A space for recording increases in the amount of the item.
3. A space for recording decreases in the amount of the item. This term of an account is known as a 'f account because of its similarity to the letter 'f as illustrated below:

Title	
Left side (debit side)	Right side (credit side)
Types of Accounts	

There are three types of accounts viz. **Personal Accounts, Real Accounts and Nominal Accounts.**

1. **Personal Accounts:**
   The accounts of persons with whom the organization deals in various capacities. Examples: -

Accounts of the suppliers	Accounts of the customers
Accounts of Banks	Capital Account

Your account with the Bank is an example of Personal Account.

2. **Real Accounts:**
   The accounts of assets Physically seen. Examples: -

Land Account	Building Account
Machinery Account	Furniture Account
Vehicles Account	Stock account
Cash Account	Computer Account

Real Accounts may also consist of the accounts of some intangible assets like—

Goodwill Account and Patents and Trade Marks Account

3. **Nominal Accounts:**
   The accounts of incomes or expenses. Examples

Sales Account	
Purchases Account	Salary Account
Wages Account	Printing and Stationary Account
Insurance Account	Telephone Expenses Account
Interest paid/Received Account	Commission paid or Received Account

1.15 GOLDEN RULES OF ACCOUNTING

Debit And Credit

The left-hand side of any account is called the debit side and the right-hand side is called the credit side. Amounts entered on the left-hand side of an account, regardless of the title of the account are called debits and the amounts entered on the right-hand side of an account are called credits. To debit (dr) an account means to make an entry on the left-hand side of an account and to credit (cr) an account means to make an entry on

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the right-hand side. The words debit and credit have no other meaning in accounting, though in common parlance; debit has a negative connotation, while credit has a positive connotation.

Double entry system of recording business transactions is universally followed. In this system for each transaction the debit amount must equal the credit amount. If not, the recording of transactions is incorrect. The equality of debits and credits is maintained in accounting simply by specifying that the left side of asset accounts is to be used for recording increases and the right side to be used for recording decreases; the right side of a liability and capital accounts is to be used to record increases and the left side to be used for recording decreases. The account balances when they are totaled, will then conform to the two equations: a liability and capital accounts is to be used to record increases and the left side to be used for recording decreases. The account balances when they are totaled, will then conform to the two equations: liability and capital accounts is to be used to record increases and the left side to be used for recording decreases. The account balances when they are totaled, will then conform to the two equations:

1. Assets = liabilities + owners' equity
2. Total Debits = Total Credits

From the above arrangement we can state that the rules of debits and credits are as follows:

Debit Signifies

1. Increase in asset accounts
2. Decrease in liability accounts
3. Decrease in owners' equity accounts

Credit Signifies

1. Decrease in asset accounts
2. Increase in liability accounts
3. Increase in owners' equity accounts

From the rule that credit signifies increase in owners' equity and debit signifies decrease in it, the rules of revenue accounts and expense accounts can be derived. While explaining the dual aspect of the concept in the preceding lesson, we have seen that revenues increase the owners' equity as they belong to the owners. Since owners' equity accounts increase on the credit side, revenue must be credits. So, if the revenue accounts are to be increased, they must be credited and if they are to be decreased, they must be debited. Similarly, we have seen that expenses decrease the owners' equity. As owners' equity account decreases on the debit side expenses must be debits. Hence to increase the expense accounts, they must be debited and to decrease it, they must be credited. From the above we can arrive at the rules for revenues and expenses as follows:

Debit Signifies Increase in expenses and decrease in revenues. Credit Signifies Increase in revenues Decrease in expenses.

Golden Rules of Accounting

a.	**Personal accounts**	Debit the receiver, credit the giver
c.	**Nominal accounts**	Debit what comes in, credit what goes out
b.	**Real accounts**	Debit all the expenses, credit all the incomes
Personal A/c: Debit The receiver		Credit The giver

For e.g.:

Anil paid Rs. 1000 to Mukesh on 31-8-2017

In the books of Anil

Date	Particulars	L.F.	Debit	Credit
2017 August 31	Mukesh A/c Dr. To Cash A/c (Being cash paid)		1,000	 1,000

In the books of Mukesh

Date	Particulars	L.F.	Debit	Credit
2017 August 31	Cash A/c Dr. To Anil A/c		1,000	 1,000

(Being cash received)

Real Account: Debit (Dr) What comes in Credit (Cr) what goes out
For e.g.: Purchased Furniture worth Rs. 2000 on 31-8-2017

Date	Particulars	L.F.	Debit	Credit
2017 August 31	Furniture A/c Dr. To Cash A/c (Being furniture purchased)		2,000	 2,000

Nominal A/c— Debit the expenses & losses Credit the incomes & gains
For e.g.: Paid Electricity Bill of Rs. 3000 on 31-8-2017

Date	Particulars	L.F.	Debit	Credit
2017 August 31	Electricity A/c Dr. To Cash A/c (Being Electricity Bill paid)		3,000	 3,000

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CHECK YOUR PROGRESS

1. **Why is accounting called the language of business?**
2. **Distinguish between financial accounting and management accounting.**
3. **Explain the various accounting concepts.**
4. **Explain the Types of Accounts with examples.**
5. **Explain the Golden Rules of Accounting with examples.**

1.16 JOURNALIZING AND LEDGER POSTING

JOURNAL

The French work 'Jour' means 'day' Journal, therefore means a daily record of business transactions. Journal is known as the book of primary entry' or 'original entry'. Transactions are entered in this book date wise. Debit entry is entered first and then credit entry is entered. The debit total of every transaction is equal to credit total of that transaction. Every debit has corresponding credit when a business transaction takes place, the first record of it is done in a book called journal. The journal records all the transactions of a business in the order in which they occur. The journal may therefore be defined as a chronological record of accounting transactions. It shows names of accounts that are to be debited or credited, the amounts of the debits and credits and any other additional but useful information about the transaction. A journal does not replace but precedes the ledger.

The Journal may be subdivided in the following five columns:

1. Date - It refers to the date on which a particular transaction has taken place.
2. Particulars - It refers to titles of the account to be debited or credited. Title of the account to be debited starts from the extreme left and the abbreviation "Dr." is written to the extreme right of the same column on the same line. Title of the account to be credited is entered on the next line preceded by the words "To" leaving some space from the extreme left. In the same column on the next line, brief description of the transaction is written which is referred to as "Narration". The narration conventionally starts with the wording "Being".
3. L.F. - This is the abbreviation of Ledger Folio. This column refers to the page number of the ledger.
4. Amount Debited -The amount to be debited is stated in this column.
5. Amount (Credited-The amount to be credited is stated in this column.

Specimen Journal

A proforma of a journal is given below.

Date	Particulars	L.F.	Debit	Credit
2017 August 31	Electricity A/c Dr. To Cash A/c (Being Electricity Bill paid)		3,000	 3,000

Date	Particulars	L.F.	Debit	Credit
2017 August 31	Cash A/c Dr. To sales a/c (Being cash sales)	3 9	3,000	 3,000

The debit entry is listed first and the debit amount appears in the left-hand amount column; the account to be credited appears below the debit entry and the credit amount appears in the right-hand amount column. The data in the journal entry are transferred to the appropriate accounts in the ledger by a process known as posting. Any entry in any account can be made only on the basis of a journal entry. The column l f. which stands for ledger folio gives the page number of accounts in the ledger wherein posting for the journal entry has been made. After all the journal entries are posted in the respective ledger accounts, each ledger account is balanced by subtracting the smaller total from the bigger total. The resultant figure may be either debit or credit balance and vice-versa.

Thus, the transactions are recorded first of all in the journal and then they are posted to the ledger.

Hence the journal is called the book of original or prime entry and the ledger is the book of second entry. While the journal records transactions in a chronological order, the ledger records transactions in an analytical order.

Journalizing

Journalizing refers to the process of recording the business transaction in the Journal that is referred to as the Book of Original Entry or the Book of Prime Entry. The various transactions are entered in the journal in the chronological order, as and when the transactions take place.

Format of journal entries: Paid Electricity Bill of Rs. 700 on 10/10/2017

Date	Particulars	L.F.	Debit	Credit
2017 October 10	Electricity A/c Dr. To Cash A/c (Being Electricity paid in cash)		700	 700

Examples of Journalizing

EXAMPLE:

January 1 - started business with Rs. 3,000

January 2 - bought goods worth Rs. 2,000

January 9 - received order for half of the goods from 'g'

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January 12 - delivered the goods, g invoiced Rs. 1,300

January 15 - received order for remaining half of the total goods purchased

January 21 -delivered goods and received cash Rs. 1,200

January 30 - g makes payment

January 31 - paid salaries Rs. 210 and -received interest Rs. 50

Let us now analyze the transactions one by one.

January 1-Started Business with Rs. 3,000:
The two accounts involved are cash and owners' equity. Cash, an asset increases and hence it has to be debited. Owners' equity, a liability also increases and hence it has to be credited.

January 2 - Bought Goods Worth Rs. 2,000:
The two accounts affected by this transaction are cash and goods (purchases). Cash balance decreases and hence it is credited and goods on hand, an asset, increases and hence it is to be debited.

January 9 - Received Order for Half of The Goods From 'G':
No entry is required as realization of revenue will take place only when goods are delivered (realization concept).

January 12 - Delivered the Goods,' G' Invoiced Rs. 1,300:
This transaction affects two accounts - goods (sales) a/c and receivables a/c. Since it is a credit transaction, receivables increase (asset) and hence it is to be debited. Sales decreases goods on hand and hence goods (sales) a/c is to be credited. Since the term 'goods' is used to mean purchase of goods and sale of goods, to avoid confusion, purchase of goods is simply shown as purchases a/c and sale of goods as sales a/c.

January 15 -Received Order for Remaining Half of Goods: No entry.

January 21 - Delivered Goods and Received Cash Rs. 1,200:
This transaction affects cash a/c. Since cash is realized, the cash balance will increase and hence cash account is to be debited. Since the stock of goods becomes nil due to sale, sales a/c is to be credited (as asset in the form of goods on hand has reduced due to sales).

January 30 -' G' Makes Payment:
Both the accounts affected by this transaction are asset accounts - cash and receivables. Cash balance increases and hence it is to be debited. Receivables balance decreases and hence it is to be credited.

January 31 - Paid Salaries Rs. 210:
Because of payment or salaries cash balance decreases and hence cash account is to be credited. Salary is an expense and since expense has the effect of reducing owners' equity and as owners' equity account decreases on the debit side, expenses account is to be debited.

January 31 -Received Interest Rs. 50:
The receipt of interest increases cash balance and hence cash a/c is to be debited. Interest being revenue which has the effect of increasing the owners' equity, it has to be

credited as owners' equity account increases on the credit side.

When journal entries for the above transactions are passed, they would be as follows:

Date	Particulars	L.F.	Debit	Credit
Jan. 1	Cash A/C Dr. To Capital A/C (Being Business Started)		3,000	3,000
Jan. 2	Purchases A/C Dr. To Cash (Being Goods Purchased)		2,000	2,000
Jan.12	Receivables A/C Dr. To Sales A/C (Being Goods Sold on Credit)		1,300	1,300
Jan.21	Cash A/C Dr. To Sales A/C (Being Goods Sold For Cash)		1,200	1,200
Jan. 30	Cash A/C Dr. To Receivables A/C (Being Cash Received for Sale of Goods)		1,300	1,300
Jan. 31	Salaries A/C Dr. To Cash A/C (Being Salaries Paid)		210	210

EXAMPLE:
Journalize the following transactions in the books of Mr. Shantilal Hajeri

1. Mr. Hajeri commenced business with cash Rs. 10,000, Machinery Rs. 10,000, Buildings Rs. 30,000 and Furniture Rs. 15,000.
2. Installed and paid for Neon Sign Board at a cost of Rs. 1,000
3. Mr. Hajeri borrowed Rs. 25,000 from his wife and the same were deposited by him in bank to open an account.

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4. Mr. Hajeri purchased goods for Rs. 7,000 for cash.
5. Mr. Hajeri purchased goods worth Rs. 10,000 from Mr. Vishalsingh on credit @2% Cash Discount.
6. Sold goods to Vithal worth Rs. 15,000 against cash after allowing 5% Trade Discount.
7. Paid Rs. 1,995 to Mr. Ramesh for purchases of goods after allowing 5% ('ash Discount on the invoice.
8. Sent a cheque of Rs. 1,000 to Chief Minister's Fund as his personal contribution.
9. Placed an order for goods worth Rs. 2,000 with M/s SangcctaTradcRs.
10. A personal table Ian worth Rs. 450 brought in the office for office use.

Solution:
In the Books of Mr. Shantilal Hajeri

Particulars	L.F.	Debit	Credit
Cash A/c Dr.		10,000	
Machinery A/c Dr.		10,000	
Building A/c Dr.		30,000	
Furniture A/c Dr.		15,000	
To, Capital A/c			65,000
(Business started with cash, machinery, building and furniture)			
Advertisement A/c Dr.		1,000	
To, Cash A/c			1,000
(Being paid for neon sign board installed)			
Bank A/c Dr.		25,000	
To, Loan from MRs. Hajeri A/c			25,000
(Being the amount borrowed from MRs. Sen to open Bank account)			
Purchases A/c Dr.		7,000	
To, Cash A/c			7,000
(Being paid for cash purchases)			
Purchases A/c Dr.		10,000	
To, Cash A/c			9,800
To, Discount Received			200
(Being purchases worth Rs. 10000 after getting 2% cash discount)			
Cash A/c Dr.		14,250	
To, Sales			14,250

(Sold goods worth Rs. 15,000 after allowing trade discount of 5%)			
Purchases A/c Dr.		2,100	
To, Cash A/c			1,995
To, Discount Received			105
(Paid Rs. 1,995 for goods purchased after getting 5% cash discount)			
Drawings A/c Dr.		1,000	
To, Bank A/c			1,000
(Being donation paid to Chief Minister's Fund as personal contribution)			
No Journal Entry will be passed, as the transaction is not a financial transaction.			

COMPOUND JOURNALENTRY

If similar transactions take place on the same day and the same account is either debited or credited, instead of passing different journal entries, it can be accounted for by passing a compound journal entry. It avoids duplication and makes the journal less bulky.

Illustration: First entry in the above example.

Thumb Rules for journal entries:

1. Purchase of goods is always debit to "Purchases Account"
2. Sale of goods is always credit to "Sales Account"
3. Cash Received Debit to "Cash Account"
4. Cash Paid Credit to "Cash account"
5. Cheque Received Debit to "Bank A/c"
6. Cheque issued Credit to "Bank a/c"
7. Credit Purchases always credit "Supplier's account"
8. Credit Sales always debit "Purchaser's account"
9. Return of Purchased goods (Return outwards) always credit to this account.
10. Return of sold goods (Return inwards) always debit to this account.

LEDGER POSTING

The Ledger is the book where transactions pertaining to one account are pooled together under one Ledger Account. A ledger account can be defined as the record of all the transactions pertaining to a person, asset, liability, income or expenditure which have taken place during a specified period and show the net effect of all these transactions at the end. Ledger is known as the principal book of accounts. For each account a separate page is kept. All entries made in Journal are recorded in Ledger. The entries made in the Journal are recorded in the Ledger in their respective accounts. Ledger helps in knowing the transactions account wise.

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As such, the transactions are first entered into the Journal or Subsidiary Book when they take place and from there they are transferred to Ledger and this process is called as Ledger Posting.

A ledger is a set of accounts. It contains all the accounts of a specific business enterprise. It may be kept in any of the following two forms: (i) bound ledger and (ii) loose leaf ledger.

A bound ledger is kept in the form of book which contains all the accounts. These days it is common to keep the ledger in the form of loose- leaf cards. This helps in posting transactions particularly when mechanized system of accounting is used.

Specimen of a Ledger Account

The Ledger Account may be maintained in two ways-

Type l

Cash Account

Debit	Rs.	Credit	Rs.
To Capital A/C	3,000	By Purchases A/C	2,000
To Sales A/C	1,200	By Salaries A/C	210
To Receivables A/C	1,300	By Balance C/D	3,340
To Interest A/C	50		
	5,550		5,550

Debits are on left side and Credits are on right side. There is no balance column.

Balance is calculated as the difference between the debit totals and credit totals.

If debit totals are more than the credit totals, the balance is shown in credit side and if debit totals are less than the credit totals, the balance is shown in debit side. This is called Balancing of account.

Type II

This format is sale like a journal but there is an additional column to record the balance. In this format there is a balance column and the balance is calculated after every transaction. This format is used by Banks and in accounting software packages like Tally. The entries in type 1 format will appear as under in type 2 format.

Date	Particulars	L.F.	Debit	Credit
	To Capital A/C		3,000	
	To Sales A/C		1,200	
	To Receivables A/C		1,300	
	To Interest A/C		50	

	By Purchases A/C			2,000
	By Salaries A/C			210

The journal entries of Illustration 1 are posted into respective ledger accounts which in turn are balanced. They will appear as under after ledger posting

Cash Account

Debit	**Rs.**	**Credit**	**Rs.**
To Capital A/C	3,000	By Purchases A/C	2,000
To Sales A/C	1,200	By Salaries A/C	210
To Receivables A/C	1,300	By Balance C/D	3,340
To Interest A/C	50		
	5,550		5,550

Capital Account

Debit	Rs.	**Credit**	**Rs.**
To Balance C/D	3,000	By Cash A/C	3,000
	3,000		3,000

Purchases Account

Debit	**Rs.**	**Credit**	**Rs.**
To Cash A/C	2,000	By Balance C/D	2,000
	2,000		2,000

Receivables Account

Debit	**Rs.**	**Credit**	**Rs.**
To Credit Sales	1,300	By Cash A/C	1,300
To Balance C/D	0		
	1,300		1,300

Sales Account

Debit	**Rs.**	**Credit**	**Rs.**
To Balance C/D	2,500	By Receivables A/c	1,300
		By Cash A/C	1,200
	2,500		2,500

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1.17 SUBSIDIARY BOOKS AND TRIAL BALANCE

If the volume of transactions is very large, recording all the transactions in the Journal may prove to be a voluminous job. Hence, the transactions of the similar nature may be entered into a separate Subsidiary Book and the net effect of the similar transactions may be transferred into the main records. In many cases there are innumerable transactions of a similar nature. Instead of entering each and every entry in journal they are maintained in a separate register/book and the total of all transactions at the end of the day is entered in the journal. Such separate books are called as Subsidiary books

Some examples of Subsidiary books:

a. Purchases book to record credit purchases of goods.

b. Sales book to record credit sales of goods.

c. Purchase returns book to record returns to suppliers.

d. Sales returns book to record returns from customers.

e. Cash book to record cash transactions.

f. Bills receivable book to record bills received.

g. Bills payable book to record bills payable accepted.

h. General journal or journal proper to record any other transactions which cannot be entered in the above specialized subsidiary books.

a. Cash Book-This records all the cash transactions i.e., Cash Receipts and Cash Payments. In some cases, Cash and Bank Book may be maintained which records Cash as well Bank Receipts and Cash as well as Bank Payments. The Cash and Bank Book may look as below-

Date Particulars L.F. Cash Bank

b. Purchases Register or Purchases Day Book — this records all the credit purchases transactions.

Date Name of the Supplier L.F. Invoice No. Amount

c. Sales Register or Sales Day Book — this records all the credit sales transactions. The Sales Register may look as stated below -

Date Name of the Customer L.F. Invoice No. Amount

d. Purchases Returns register-This records the transactions of return of goods to the suppliers from whom purchases were made on credit basis. The Purchases Return Register may look as stated below -

Date Name of the Supplier L.F.Debit Note No. Amount

e. Sales Returns Register - These records all the transactions of return of goods by the customers to whom sales were made on credit basis. The Sales Return Register may look as stated below

Date Name of the Customer L.F. Credit Note No. Amount

f. Journal Proper — this records all the residual transaction, which cannot be entered into any other subsidiary book.

The transactions, which can be entered in the Journal proper, are

a. Opening Entries

b. Closing Entries

c. Rectification Entries

d. Adjustment Entries

TRIAL BALANCE

The trial balance is simply a list of the account names and their balance as of a given moment of time with debit balances in one column and credit balances in another column. It is prepared to ensure that the mechanics of the recording and posting of the transaction have been carried out accurately. If the recording and posting have been accurate then the debit total and credit total in the trial balance must tally thereby evidencing that an equality of debits and credits has been maintained. In this connection it is but proper to caution that may agreement of the debt and credit total in the trial balance is not conclusive proof of correct recording and posting. There are many errors which may not affect the agreement of trial balance like total omission of a transaction, posting the right amount on the right side but of a wrong account etc.

Trial Balance is the summary of all the balances in all the accounts listed in the General Ledger and Cash / Bank Book of an organization at any given date. Tallying of Trial Balance generally ensures the arithmetical accuracy of the process of Ledger Posing.

Format of Trial Balance

Trial Balance as on 31st March 2017	
Name of the Account	Debit Credit

Accounts having the debit balance are shown on the debit side whereas the accounts having credit balance are shown on the credit side. Generally, accounts of the assets will have debit balance and hence will be shown on the debit side. Generally, accounts of all liabilities will have a credit balance and hence will be shown on the credit side. Generally, accounts of all the expenses will have a debit balance and hence will be shown on the debit side. Generally, accounts of all the incomes will have credit balance and hence will be shown on credit side.

Trial Balance of the entries of Illustration 1 would appear as follows:

Debit	Rs.	Credit	Rs.
Cash	3,340	Capital	3,000
Purchases	2,000	Sales	2,500
Salaries	210	Interest	50
	5,550		5,550

EXAMPLE: Journalize the following transactions, post them in the ledger accounts and prepare the Trial balance in the books of Mr. Shantilal.

1. Mr. Shantilal started a proprietary business by investing a capital of Rs. 90,000 in cash.

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2. He opened a current account with Bank of Maharashtra by depositing Rs. 15,000/-
3. He availed a loan of Rs. 2,00,000 from Bank of Maharashtra which was credited to his current account.
4. He purchased furniture and fittings worth Rs. 40,000 from Mr. Vishal by issuing the cheque No. 123456.
5. He purchased goods from Mr. Vithal worth Rs. 30,000 by Cash.
6. He purchased goods from Mr. Mihir worth Rs. 40,000 by issuing cheque No. 123457.
7. He purchased goods from Mr. Ratan worth Rs. 20,000 on Credit for One month.
8. He purchased goods from Mr. Shankar worth Rs. 2.00 lacs of which Rs. 90,000/- was on credit and Rs. 1,10,000/- by issuing cheque No. 123458.
9. He purchased goods from Mr. Ashok worth Rs. 40,000 of which Rs. 15,000/-was in cash and Rs. 25,000/- by issuing cheque No. 123459.
10. He purchased goods from Mr. Rahul worth Rs. 70,000 of which Rs. 15,000/-was in cash and Rs. 55,000/-on credit.
11. He purchased goods from Mr. Harshall worth Rs. 72,000 of which Rs. 12,000/- was in cash and Rs. 45,000/- on credit and Rs. 15,000 by cheque.
12. He sold goods in cash for Rs. 50,000/-to Mr. Suresh.
13. He sold goods in cash for Rs. 21,000/-to Mr. Ramesh against Cheque on SBI.
14. He sold goods to Mr. Subhash Rs. 23,000 on credit.
15. He sold goods to Mr. Suresh Rs. 25,000 in cash and Rs. 75,000 on credit.
16. He sold goods to Mr. Subhash Rs. 23,000 on credit and Rs. 12,000 against Cheque.
17. He sold goods to Mr. Sangamesh Rs. 21,000 in cash and Rs. 71,000 against Cheque.
18. He sold goods to Mr. Sangamesh Rs. 11,000 in cash and Rs. 41,000 against Cheque .and Rs. 12,000 on credit.
19. He deposited Rs. 25,000 cash in his current account.
20. He paid Rs. 5,000 rents by cheque No. 123459.
21. He issued a cheque No. 123460 to Mr. Ratan for Rs 10,000.
22. He issued a cheque No. 123461 to BSNL for Rs 1,000 towards telephone bill.
23. He issued a cheque No. 123462 to MS EDCL for Rs 2,000 towards electricity bill.
24. He paid Salary of Rs. 6,000 to his employee Mr. Udayan by cash.
25. Bank debited Rs. 2,000 as interest to his loan account.
26. He issued a cheque No. 123463 for Rs. 5,000 to Bank of Maharashtra towards monthly instalment of the loan.
27. He received a cheque of Rs. 13,000 from Suresh.

28. He received a cheque of Rs. 12,000 from Sangamesh.
29. He issued a cheque No. 123464 to Mr. Rahul for Rs. 25,000.
30. Cheque received from Suresh for, Rs. 13,000 bounced. Bank debited Rs. 250/-as cheque return charges.

Solutions:
Journal Entries

IN THE BOOKS OF MR. SHANTILAL

Date (S.N.)	Particulars (Type of Accounts)	Ledger Folio (Trans. No)	Debit	Credit
1	Cash on Hand Account		90,000	0
	To Capital Account	1/2	0	90,000
2	Bank Account	1/1	15,000	0
	To Cash on Hand Account	1/3	0	15,000
3	Bank Account	1/1	200,000	0
	To Loan Account	1/13	0	200,000
4	Furniture Account	1/19	40,000	0
	To Bank Account	1/1	0	40,000
5	Purchase Account	1/14	30,000	0
	To Cash on Hand Account	1/3	0	30,000
6	Purchase Account	1/14	40,000	0
	To Bank Account	1/1	0	40,000
7	Purchase Account	1/14		20,0000
	To Creditor Ratan's Account	1/6	0	20,000
8	Purchase Account	1/14	200,000	0
	To Creditor Shankar's Account	1/7	0	90,000
	To Bank Account	1/1	0	110,000
9	Purchase Account	1/14	40,000	0
	To Cash on Hand Account	1/3	0	15,000
	To Bank Account	1/1	0	25,000
10	Purchase Account	1/14	70,000	0
	To Cash on Hand Account	1/3	0	15,000
	To Creditor Rahul's Account	1/5	0	55,000
11	Purchase Account	1/14	72,000	0
	To Creditor Harshal's Account	1/4	0	45,000
	To Cash on Hand Account	1/3	0	12,000
	To Bank Account	1/1	0	15,000
12	Cash on Hand Account	1/3	50,000	0
	To Sales Account	1/17	0	50,000

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13	Bank Account	1/1	21,000	0
	To Sales Account	1/17	0	21,000
14	Debtor Subhash's Account	1/9	23,000	0
	To Sales Account	1/17	0	23,000
15	Debtor Suresh's Account	1/10	75,000	0
	Cash on Hand Account	1/3	25,000	0
	To Sales Account	1/17	0	100,000
16	Debtor Subhash's Account	1/9	23,000	0
	Bank Account	1/1	12,000	0
	To Sales Account	1/17	0	35,000
17	Cash on Hand Account	1/3	21,000	0
	Bank Account	1/1	71,000	0
	To Sales Account	1/17	0	92,000
18	Cash on Hand Account	1/3	11,000	0
	Bank Account	1/1	41,000	0
	Debtor Sangmcsh's Account	1/8	12,000	0
	To Sales Account	1/17	0	64,000
19	Bank Account	1/1	25,000	0
	To Cash on Hand Account	1/3	0	25,000
20	Rent Account	1/15	5,000	0
	To Bank Account	1/1		5,000
21	Creditor Ratan's Account	1/6	10,000	0
	To Bank Account	1/1	0	10,000
22	Telephone Expense Account	1/18	1,000	0
	To Bank Ac count	1/1	0	1,000
23	Electricity Charges Account	1/11	2,000	0
	To Bank Account	1/1	0	2,000
24	Salary Account	1/16	6,000	0
	To Cash on Hand Account	1/3	0	6,000
25	Interest on Loan Account	1/12	2,000	0
	Loan Account	1/13	0	2,000
26	Loan Account	1/13	5,000	0
	To Bank Account	1/1	0	5,000
27	Bank Account	1/1	13,000	0
	To Debtor Suresh's Account	1/10	0	13,000
28	Bank Account	1/1	12,000	0
	To Debtor Sangmesh's Account	1/8	0	12,000
29	Creditor Rahul's Account	1/5	25,000	0
	To Bank Account	1/1	0	25,000

30	Debtor Suresh's Account	1/10	13,000	0
	Debtor Suresh's Account	1/10	250	0
	To Bank Account	1/1	0	13,000
	To Bank Account charges	1/1	0	250
	Total		1,321,250	1,321,250

Ledger posting of the above transactions

GENERAL LEDGER

Pg l Bank Account

Date (S.N.)	Particulars	Cheque No.	Debit	Credit	Balance
0	Opening Balance	-	-	-	0
2	To Cash Deposit	-	15000	0	-15000
3	To disbursal of Bank Loan	-	200000	0	-215000
4	By Check to Mr. Vishal	123456	0	40000	-175000
6	By Check to Mr. Mihir	123457	0	40000	-135000
8	By Check to Mr. Shankar	123458	0	110000	-25000
9	By Check to Mr. Ashok	123459	0	25000	0
11	By Check to Mr. Harshal	-	0	15000	15000
13	To Check from Mr. Ramesh	-	21000	0	-6000
16	To Check from Mr. Subhash	-	12000	0	-18000
17	To Check from Mr. Sangmesh	-	71000	0	-89000
18	To Check from Mr. Sangmesh	-	41000	0	-130000
19	To Cash Deposit	-	25000	0	-155000
20	By Rent for Aug 2012	123459	5000		-150000
21	By Check to Mr. Ratan	123460	0	10000	-140000
22	By BSNL Tel. Bill Payment	123461	0	1000	-139000
23	By MS ED CL Electricity	123462	0	2000	-137000
	Bill Payment				
26	ByEMIforAug2012	123463	0	5000	-132000
27	By Check from Mr. Suresh	-	13000	0	-145000
28	By Check from Mr. Sangmesh	-	12000	0	-157000
29	By Check to Mr. Rahul	123464	0	25000	-132000
30	By Reversal due to N S F	-	0	13000	-119000
30	By NSF charges	-	0	250	-118750
			410000	291250	

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Pg 2 Capital Account

Date (S.N.)	Particulars	Cheque No.	Debit	**Credit**	**Balance**
0	Opening Balance	-	-	-	0
1	By initial investment - Mr. Shantilal	-	0	90000	90000
			0	90000	

Pg 3 Cash on Hand Account

Date (S.N.)	Particulars	**Cheque No.**	**Debit**	**Credit**	**Balance**
0	Opening Balance	-	-	-	0
1	To Capital Investment	-	90000	0	-90000
2	By Deposit to Bomaha Current A/C	-	0	15000	-75000
5	By Cash to Mr. Vithal	-	0	30000	-45000
9	By Cash to Mr. Ashok	-	O	15000	-30000
10	By Cash to Mr. Rahul	-	O	15000	-15000
11	By Cash to Mr. Harshal	-	O	12000	-3000
12	To Cash from Mr. Suresh	-	5OO00	0	-53000
15	To Cash from Mr. Suresh	-	25000	0	-78000
17	To Cash from Mr. Sangmesh	-	21000	0	-99000
18	To Cash from Mr. Sangmesh	-	11000	0	-110000
19	By Cash Deposit to Current A/C	-	0	25000	-85000
24	By Salary to Mr. Udayan	-	0	6000	-79000
			197000	118000	

Pg 4 Creditor Harshal's Account

Date (S.N.)	Particulars	Cheque No.	Debit	Credit	Balance
0	Opening Balance	-	-	-	0
11	By Purchase of goods		0	45000	45000
			0	45000	

Pg 5 Creditor Rahul's Account

Date (S.N.)	Particulars	Cheque No.	Debit	Credit	Balance

0	Opening Balance	-	-	-	0
10	By Purchase of goods	-	0	55000	55000
29	To Bank Account	123464	25000	0	30000
			25000	55000	

Pg 6 Creditor Ratan's Account

Date (S.N.)	Particulars	Cheque No.	Debit	Credit	Balance
0	Opening Balance	-	-	-	0
7	By Purchase of goods	-	0	20000	20000
21	To Bank Account	123460	10000	0	10000
			10000	20000	

Pg 7 Creditor Shankar's Account

Date (S.N.)	Particulars	Cheque No.	Debit	Credit	Balance
0	Opening Balance	-	-	-	0
8	By Purchase of goods	-	0	90000	90000
			0	90000	

Pg 8 Debtor Sangamesh's Account

Date (S.N.)	Particulars	Cheque No.	Debit	Credit	Balance
0	Opening Balance	-	-	-	0
18	To Sale of goods	-	12000	0	-12000
28	By Bank Account	-	0	12000	0
			12000	12000	

Pg 9 Debtor Subhash's Account

Date (S.N.)	Particulars	Cheque No.	Debit	Credit	Balance
0	Opening Balance	-	-	-	0
14	To Sale of goods	-	23000	0	-23000

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16	To Sale of goods	-	23000	0	-46000
			46000	0	

Pg 10 Debtor Suresh's Account

Date (S.N.)	Particulars	Cheque No.	Debit	Credit	Balance
0	Opening Balance	-	-	-	0
15	To Sale of goods	-	75000	0	-75000
27	By Bank Account	-	0	13000	-62000
30	To Bank Account		13000	0	-75000
30	To Check Return Charges	-	250	0	-75250
			88250	13000	

Pg 11 Electricity Charges Account

Date (S.N.)	Particulars	Cheque No.	Debit	Credit	Balance
0	Opening Balance	-	-	-	0
23	To MSEDCL	123462	2000	0	-2000
			2000	0	

Pg 12 Interest on Loan Account

Date (S.N.)	Particulars	Cheque No.	**Debit**	**Credit**	**Balance**
0	Opening Balance	-	-	-	0
25	To Interest on loan		2000	0	-2000
			2000	0	

Pg 13 Loan Account

Date (S.N.)	Particulars	Cheque No.	Debit	Credit	Balance
0	Opening Balance	-	-	-	0
3	By Loan Disbursement	-	0	200000	200000
25	By Interest on loan-		0	2000	202000

26	To EMI payment	123463	5000	0	197000
			5000	202000	

Pg 14 Purchase Account

Date (S.N.)	Particulars	Cheque No.	Debit	Credit	Balance
0	Opening Balance	-	-	-	0
5	To Cash Purchase from Mr. Vithal	-	30000	0	-30000
6	To Purchase from Mr. Mihir	123457	40000	0	-70000
7	To Credit Purchase from Mr. Ratan	-	20000	0	-90000
8	To Purchase from Mr. Shankar	-	200000	0	-290000
9	To Purchase from Mr. Ashok	-	40000	0	-330000
10	To Purchase from Mr. Rahul	-	70000	0	-400000
11	To Purchase form Mr. Harshal	-	72000	0	-472000
			472000	0	

Pg 15 Rent Account

Date (S.N.)	Particulars	Cheque No.	Debit	Credit	Balance
0	Opening Balance	-	-	-	0
20	To Rent Payment for the month of	123459	5000	0	-5000
			5000	0	

Pg 16 Salary Account

Date (S.N.)	Particulars	Cheque No.	Debit	Credit	**Balance**
0	Opening Balance	-	-	-	0
24	To Salary to Udayan	-	6000	0	-6000
			6000	0	

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Pg 17 Sales Account

Date (S.N.)	Particulars	Cheque No.	Debit	Credit	Balance
0	Opening Balance	-	-	-	0
12	By Sale of goods to Mr. Suresh	-	0	50000	50000
13	By Sale of goods to Mr. Ramesh	-	0	21000	71000
14	By Sale of goods to Mr. Subash	-	0	23000	94000
15	By Sale of goods to Mr. Suresh	-	0	100000	194000
16	By Sale of goods to Mr. Subash	-	0	35000	229000
17	By Sale of goods to Mr. Sangmesh	-	0	92000	321000
18	By Sale of goods to Mr. Sangmesh	-	0	64000	385000
			0	385000	

Pg 18 Telephone Expense Account

Date (S.N.)	Particulars	Cheque No.	**Debit**	**Credit**	**Balance**
0	Opening Balance	-	-	-	0
22	BSNL	123461	1000	0	-1000
			1000	0	

Pg 19 Furniture Account

Date (S.N.)	Particulars	Cheque No.	Debit	Credit	Balance
0	Opening Balance	-	-	-	0
4	To Purchase of furniture's	123456	40000	0	-40000
			40000	0	

Trial Balance as on DD-MM-YYYY

Sr. No.	**Title of the Account**	**Debit Balance**	**Credit Balance**
1	Bank Account	118,750	0

2	Capital Account	0	90,000
3	Cash on Hand Account	79,000	0
4	Creditor Harshal's Account	0	45,000
5	Creditor Rahul's Account	0	30,000
6	Creditor Ratan's Account	0	10,000
7	Creditor Shankar's Account	0	90,000
8	Debtor Sangmesh's Account	0	0
9	Debtor Subhash's Account	46,000	0
10	Debtor Suresh's Account	75,250	0
11	Electricity Charges Account	2,000	0
12	Interest on Loan Account	2,000	0
13	Loan Account	0	197,000
14	Purchase Account	472,000	0
15	Rent Account	5,000	0
16	Salary Account	6,000	0
17	Sales Account	0	385,000
18	Telephone Expense Account	1,000	0
19	Furniture Account	40,000	
	Total	847,000	847,000

1.18 CHAPTER SUMMARY

Accounting is rightly called the language of business. It is as old as money itself. It is concerned with the collecting, recording, evaluating and communicating the results of business transactions. Initially meant to meet the needs of a relatively few owners, it gradually expanded its functions to a public role of meeting the needs of a variety of interested parties. Broadly speaking all citizens are affected by accounting in some way. Accounting as an information system possesses with accountants engaged in private and public accounting. As in many other areas of human activity a number of specialized fields in accounting also have evolved as a result of rapid changes in business and social needs.

Accounting information should be made standard to convey the same meaning to all interested parties. To make it standard, certain accounting principles, concepts, conventions and standards have been developed over a period of time. These accounting principles, by

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whatever name they are called, serve as a general law or rule that is to be used as a guide to action. Without accounting principles, accounting information becomes incomparable, inconsistent and unreliable. An accounting principle to become generally accepted should satisfy the criteria of relevance, objectivity and feasibility. The FASB (financial accounting standards board) is currently the dominant body in the development of accounting principles. The IASC is another professional body which is engaged in the development of the accounting standards. The ICAI is an associate member of the IASC and the ASB started by the ICAI is formulating accounting standards in our country. Both the IASC and ICAI consider going concern, accrual and consistency as fundamental accounting assumptions.

The following steps are involved in the accounting process:

1. The first and the most important part of the accounting process is the analysis of the transactions to decide which account is to be debited and which account is to be credited.
2. Next comes journalizing the transactions i.e., recording the transactions in the journal.
3. The journal entries are posted into respective accounts in the ledger and the ledger accounts are balanced.
4. At the end of the accounting period, a trial balance is prepared to ensure quality of debits and credits.
5. Adjustment and closing entries are made to enable the preparation of financial statements.
6. Asa last step financial statements are prepared.

These six steps taken sequentially complete the accounting process during an accounting period and are repeated in each subsequent period.

1.19 KEY WORDS

Account	A statement wherein information relating to all items are accumulated.
Credit	Signifies decrease in asset accounts, increase in liability accounts and increase in owners' equity accounts.
Debit	Signifies increase in asset accounts, decrease in liability accounts and decrease in owners' equity accounts.
Journal	A book of prime entry.
Ledger	A set of accounts of a specific business enterprise.
Trial Balance	A list of balances of accounts to ensure arithmetical accuracy.
Accounting concept	Accounting postulates i.e., necessary assumptions or conditions upon which accounting is based.
Accounting conventions	Convention signifies the customs or traditions which serve as a guide to the preparation of accounting statements.

Accounting principle	The body of doctrines commonly associated with the theory and procedure of accounting.
Accounting standard	Standards to be observed in the presentation of financial statements.
Accounting	Language of business.
Cost accounting	Accounting for determination and control of costs.
Financial accounting	Concerned with the recording of transactions for a business enterprise and the periodic preparation of various reports from such records.
Management accounting	Accounting for internal management needs.

1.20 REVIEW QUESTIONS

SHORT ANSWER TYPE QUESTIONS

1. **What arc the functions of accounting?**
2. **State the Scope and importance of accounting.**
3. **Accounting as a social science can be viewed as an information system. Examine.**
4. **Distinguish nominal accounts from real accounts.**
5. **State the difference between two formats of Ledger.**

LONG ANSWER TYPE QUESTIONS

1. **Distinguish between Financial accounting and Cost accounting.**
2. **Distinguish between Capital Expenditure and Revenue Expenditure.**
3. **Distinguish between Realization Concept and Accrual Concept.**
4. **Explain the mechanism of balancing an account.**
5. **Explain the following: (a) journal (b) an account (c) ledger d) Trial Balance.**

1.21 MULTIPLE CHOICE QUESTIONS

1. **Accounting is aptly called the language of _____.**
   a. Business
   b. Communication
   c. Soul
   d. None of the above
2. **It is as _____ as money itself.**
   a. Gold
   b. New
   c. Old
   d. Both A and B

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3. **It is concerned with the _____ and communicating.**
   a. Collecting,
   b. Recording,
   c. Evaluating
   d. All of the above
4. **Initially meant to meet the needs of a relatively _____ owners.**
   a. Few
   b. Most
   c. Low
   d. None of the above
5. **Accounting as an information system possesses with accountants engaged in private and public accounting.**
   a. Economics
   b. Accounting
   c. Social
   d. None of the above
6. **The accounting period ends on _____.**
   a. 29th April
   b. 31st March
   c. 26th September
   d. None of the Above
7. **Accounting records only those transactions which can be expressed in _____.**
   a. Monetary terms
   b. Secondary terms
   c. Least terms
   d. None of the above
8. **Expenditure (Payments) can be grouped into the _____ categories.**
   a. 4
   b. 2
   c. 3
   d. 7
9. **An expenditure which is consumed during the current period and which affects the income of the current period is called _____.**
   a. Deferred Revenue Expenditure
   b. Capital and revenue profits

c. Revenue expenditure

d. None of the Above

10. _____ indicates the amount of funds paid for acquiring the infrastructural properties required for doing business.

a. Capital Expenditure

b. Revenue expenditure

c. Capital and revenue profits

d. None of the Above

♦♦♦♦♦

UNIT II

PREPARATION OF FINANCIAL STATEMENT

STRUCTURE

NOTES 

2.1 LEARNING OBJECTIVE

After completing this unit, you will be able to:

- Explain the Methods of Depreciation understand the Adjustment entries.
- Rectify the Errors.
- Prepare Bank Reconciliation Statement.
- State the Causes for difference in Bank balances.
- Understand the meaning of Profit and Loss Appropriation Account.
- Explain the Guidelines for Preparation of financial statements.
- Able to prepare financial statements.

2.2 INTRODUCTION

While preparing the final accounts, we have to make certain closing adjustment entries such as providing depreciation on fixed assets, providing for bad and doubtful debts, rectify the errors that might have taken place, and reconcile the bank balance. We have to also make provisions for the expenses incurred but not paid; income accrued but not received, prepaid expenses etc. The purpose of these entries is to match the transactions pertaining to the period and to arrive at a true and correct position of assets and liabilities and profit and loss statement.

2.3 DEPRECIATION ACCOUNTING

With the passage of time, all fixed assets lose their capacity to render services, the exceptions being land and antics. Accordingly, a fraction of the cost of the asset is chargeable as an expense in each of the accounting periods in which the asset renders services. The accounting process for this gradual conversion of capitalized cost of fixed assets into expense is called depreciation. Depreciation can be defined as a permanent, continuous and gradual reduction in the book value of a fixed asset. In common parlance depreciation means a fall in the quality or value of an asset. But in accounting terminology, the concept of depreciation refers to the process of allocating the initial or restated input valuation of fixed assets to the several periods expected to benefit from their acquisitions and use. Depreciation accounting is a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, less salvage (if any), over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation and not of valuation.

The international accounting standards committee (IASC) (now international accounting standards board) defines depreciation as follows:

Depreciation is the allocation of the depreciable amount of an asset over the estimated useful life. The useful life is in turn defined as the period over which a depreciable asset is expected to be used by the enterprise.

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The depreciable amount of a depreciable asset is its historical cost in the financial statements, less the estimated residual value. Residual value or salvage value is the expected recovery or sales value of the asset at the end of its useful life.

Causes of Depreciation

The causes of depreciation are 1) Use factor: 2) Time factor: 3) Obsolescence:

Among other factors, the two main factors that contribute to the decline in the usefulness of fixed assets are deterioration and obsolescence.

Deterioration is the physical process wearing out whereas obsolescence refers to loss of usefulness due to the development of improved equipment or processes, changes in style or other causes not related to the physical conditions of the asset.

The other causes of depreciation are:

1. Efflux of time - mere passage of time will cause a fall in the value of an asset even if it is not used.
2. Accidents - an asset may reduce in value because of meeting with an accident.
3. Fall in market price - a sudden fall in the market price of the asset reduces its value even if it remains brand new.

Need For Depreciation Accounting

It is necessary to distribute the cost of a fixed asset in such a way so as to allocate it as equitably as possible to the periods during which the benefits are received from the use of fixed assets. This system or procedure is called depreciation accounting.

The need for depreciation accounting arises on three grounds:

1. To calculate proper profit: according to matching concept of accounting, profit of any year can be calculated only when all costs of earning revenues have been properly charged against them. Asset is an important tool in earning revenues. The fall in the book value of assets reflects the cost of earning revenues from the use of assets in the current year and hence like other costs like wages, salary, etc., it must also be provided for proper matching of revenues with expenses.
2. To show true financial position: the second ground for providing depreciation is that it should result in carrying forward only that part of asset which represents the unexpired cost of expected future service. If the depreciation is not provided then the asset will appear in the balance sheet at the overstated value.
3. To make provision for replacement of assets: if no changes were made for depreciation, profits of the concern would be more to that extent. By making an annual charge for depreciation, a concern would be accumulating resources enough to enable it to replace an asset when necessary. Replacement, thus, does not disturb the financial position of the concern.

PREPARATION OF FINANCIAL STATEMENT

2.4 METHODS OF DEPRECIATION

The amount of depreciation of a fixed asset is determined taking into account the following

three factors: its original cost, its recoverable cost at the time it is retired from service and the length of its life. Out of these three factors the only factor which is accurately known is the original cost of the asset. The other two factors cannot be accurately determined until the asset is retired. They must be estimated at the time the asset is placed in service. The excess of cost over the estimated residual value is the amount that is to be recorded as depreciation expense during the assets' life-time. There are no hard and fast rules for estimating either the period of usefulness of an asset or its residual value at the end of such period. Hence these two factors, which are inter-related, are affected to a considerable extent by management policies.

In this lesson three such methods are discussed, viz.

1. Straight line method.
2. Diminishing balance method.
3. Annuity method.

1. STRAIGHT LINE METHOD (STM) OF DEPRECIATION

This method which is also known as 'fixed installment system', provides for equal amount of depreciation every year, binder this method, the cost of acquisition plus the installation charges, minus the scrap value, is spread over the estimated life of the asset to arrive at the annual charge.

In other words, this method writes off a fixed percentage, say 20%, of the original cost of the asset every year in such a way that the asset is reduced to nil or scrap value at the end of its life.

Evaluation:

The chief merit of this method is that it is easy to calculate depreciation, and hence, it is simple. Depreciation charge is constant from year to year, regardless of the extent of use of the asset. This method can be employed in the case of assets like furniture and fixtures, short leases, etc.

Which involve little capital outlay, or which have no residual value. This method is criticized on the ground that the depreciation charge remaining the same every year, cost of repairs and maintenance would be increasing as the asset becomes older. With the efficiency of the asset declining, it is unfair to charge the same amount of depreciation every year.

Depreciation = Cost of asset - Estimated scrap value
Estimated life in years

EXAMPLE: On 1-4-2017, machinery was purchased for Rs. 10,000. Depreciation at the rate of 10% has to be written off assuming the life of asset as 10 years. Write up the machinery account for three years under Straight line method (SLM). Assume the scrap value as nil.

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Solution:

Machinery Account

Date	Particulars	Debit	Credit	Debit Balance
1-Apr-17	Machinery Purchased	10000		10000
31-Mar-18	Depreciation for the year		1000	9000
31-Mar-18	By Balance CF	0	9000	0
1-Apr-18	To Balance BF	9000		9000
31-Mar-19	Depreciation for the year		1000	8000
31-Mar-19	By Balance CF	0	8000	0
1-Apr-19	To Balance BF	8000	0	8000
31-Mar-20	Depreciation for the year		1000	7000
31-Mar-20	By Balance CF		7000	0

In reality new machines are purchased and old machines are sold. Hence the companies maintain a detailed depreciation schedule to account for purchases and sales of machinery.

Detailed format is as under

S.N	**Particulars**	**31-3-2018**	**31-3-2019**	**31-3-2020**
a)	Cost			
1	Opening	10000	10000	10000
2	Additions	0	0	0
3	Deductions	0	0	0
4	Closing	10000	10000	10000
b)	Depreciation			
5	Opening	0	1000	2000
6	Additions	0	0	0
7	Deductions	0	0	0
8	Closing	1000	2000	3000
c)	Written Down Value			

9	Opening	10000	9000	8000
10	Additions	0	0	0
11	Deductions	0	0	0
12	Value for Depreciation	10000	10000	10000
13	Depreciation Rate %	10.00	10.00	10.00
14	Depreciation for the year	1000	1000	1000
15	Closing WDV	9000	8000	7000

EXAMPLE:

On 1-4-2017, machinery was purchased for Rs. 15,000. Depreciation at the rate of 10% has to be written off. On 1 -4-2019 a new machinery for Rs.25, 000 was purchased Write up the machinery account for three years under Straight line method (SLM). Assume the scrap value as nil.

S.N	Particulars	31-3-2018	31-3-2019	31-3-2020
a)	Cost			
1	Opening	15000	15000	15000
2	Additions	0	0	25000
3	Deductions	0	0	0
4	Closing	15000	15000	40000
b)	Depreciation			
5	Opening	0	1500	3000
6	Additions	0	0	0
7	Deductions	0	0	0
8	Closing	1500	3000	7000
c)	Written Down Value			
9	Opening	15000	13500	12000
10	Additions	0	0	25000

Solution: Machinery Account

1	Deductions	0	0	0
2	Value for Depreciation	15000	15000	40000

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3	Depreciation Rate %	10.00	10.00	10.00
4	Depreciation for the year	1500	1500	4000
5	Closing WDV	13500	12000	33000

EXAMPLE: On 1-4-2017, machinery was purchased for Rs. 20,000. Depreciation at the rate of 10% has to be written off. On 1-4-2018 a new machinery for Rs.35,000 was purchased On 1-4- 2019 old machinery was sold for Rs. 15,000. Write up the machinery account for three years under Straight line method (SLM). Assume the scrap value as nil.

Solution:

Machinery Account

S.N	Particulars	31-3-2018	31-3-2019	31-3-2020
a)	Cost			
1	Opening	20000	20000	55000
2	Additions	0	35000	0
3	Deductions	0	0	20000*
4	Closing	20000	55000	35000
b)	Depreciation			
5	Opening	0	2000	7500
6	Additions	0	0	0
7	Deductions	0	0	4000*
8	Closing	2000	7500	7000
c)	Written Down Value			
9	Opening	20000	18000	47500
10	Additions	0	35000	0
11	Deductions	0	0	16000
12	Value for Depreciation	20000	55000	35000
13	Depreciation Rate %	10.00	10.00	10.00
14	Depreciation for the year	2000	5500	3500
15	Closing WDV	18000	47500	28000*

Notes:

1. Even though machinery is sold for 15,000, it will not reflect in Machinery account. Original cost of machinery sold is deducted from the cost.
2. A depreciation of Rs.2,000 per year was made for two years on the sold machinery. Hence, Rs.4,000 is deducted from the Depreciation
3. Only one machinery of35,000 is left and the depreciation for two years on the same is 7,000. Hence written down value is 28,000.
4. Written down Value of Machinery sold was Rs. 16,000 but it was sold for Rs. 15,000. Hence there will be a loss of Rs. 1000 on Loss on sale of asset which will be reflected in Profit and Loss account.

2. DIMINISHING BALANCE METHOD

The depreciation is provided at a predetermined percentage, on the balance of cost of asset after deducting the depreciation previously charged (usually termed as written down value).

This method which is also known as the, 'reducing instalment system', or 'written down value method', applies depreciation as a fixed percentage to the balance of the net cost of the asset not yet allocated at the end of the previous accounting period. The percentage of depreciation is so fixed that, theoretically, the balance of the unallocated cost at the end of the estimated useful life of the asset should be equal to the estimated residual value.

Evaluation:

Unlike the fixed instalment system, depreciation under this method is not fixed, but gradually decreasing. As such, in the initial periods, the amount will be much higher, but negligible in the later period of the asset. Thus, this method tends to offset the amount of depreciation on the one hand and repairs and maintenance on the other. This method is also simple, although the calculation of depreciation is a bit complicated. Further, as and when additions are made to the asset, fresh calculations do not become necessary. This method is best suited to assets such as plant and machinery which have a long life.

Entries Required:

The entry to be made on writing oft depreciation under any method is:

Depreciation a/c Dr

To asset a/c

The depreciation account goes to the debit of the profit and loss account.

The entry for this is:

Profit and loss a/c ... dr

To depreciation a/c

NOTES 

The asset appears at its reduced value in the balance sheet.

EXAMPLE: On 1-4-2017, machinery was purchased for Rs. 10,000. Depreciation at the rate of 10% has to be written oil. Write up the machinery account for three years under Written down value method (WDV). Assume the scrap value as nil.

Solution:

Machinery Account

Date	Particulars	Debit	Credit	Debit Balance
1-Apr-17	Machinery Purchased	10000		10000
31-Mar-18	Depreciation for the year		1000	9000

31-Mar-18	By Balance CF	0	9000	0
1-Apr-18	To Balance BF	9000		9000
31-Mar-19	Depreciation for the year		900	8100
31-Mar-19	By Balance CF	0	8100	0
1-Apr-19	To Balance BF	8100		8100
31-Mar-20	Depreciation for the year		810	7290
31-Mar-20	By Balance CF		7290	0

In reality new machines are purchased and old machines are sold. Hence the companies maintain a detailed depreciation schedule to account for purchases and sales of machinery.

Detailed format is as under

S.N	**Particulars**	**31-3-2018**	**31-3-2019**	**31-3-2020**
a)	Cost			
1	Opening	10000	10000	10000
2	Additions	0	0	0
3	Deductions	0	0	0
4	Closing (4= 1+2-3)	10000	10000	10000
b)	Depreciation			
5	Opening	0	1000	1900
6	Additions	0	0	0
7	Deductions	0	0	0

8	Closing (8=5+6-7+14)	1000	1900	2710
c)	Written Down Value			
9	Opening (9=1-5)	10000	9000	8100
10	Additions	0	0	0
11	Deductions	0	0	0
12	Value for Depreciation	10000	9000	8100
13	Depreciation Rate %	10.00	10.00	10.00
14	Depreciation for the year	1000	900	810
15	Closing WDV(15=12-14)	9000	8100	7290

3. ANNUITY METHOD OF DEPRECIATION

Under the first two methods of depreciation the interest aspect has been ignored. Under this method, the amount spent on the acquisition of an asset is regarded as investment which is assumed to earn interest at a certain rate. Every year the asset is debited with the amount on interest and credited with the amount of depreciation. This interest is calculated on the debit balance of the asset account at the beginning of the year. The amount to be written off as depreciation is calculated from the annuity table an extract of which is given below:

Years	3%	3.5%	4%	4.5%	5%
3	0.353530	0.359634	0.360349	0.363773	0.367209
4	0.269027	0.272251	0.275490	0.278744	0.282012
5	0.218355	0.221481	0.224627	0.227792	0.230975

The amount to be written off as depreciation is ascertained from the annuity table and the same depends upon the rate of interest and the period over which the asset is to be written off. The rate of interest and the amount of depreciation would be adjusted in such a way that at the end of its working life, the value of the asset would be reduced to nil or its scrap value.

Evaluation:

This method has the merit of treating purchase of an asset as an investment within the business, and the same is supposed to earn interest. However, calculations become difficult when additions are made to the asset. The method is suitable only for long leases and other assets to which additions are not usually made and as such in case of machinery, this method is not found suitable.

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EXAMPLE: A lease is purchased for a term of 4 years by payment of Rs. 1,00,000. It is proposed to depreciate the lease by annuity method charging 4% interest. If annuity of re. I for 4 years at 4% is 0.275490, show the lease account for the full period.

Amount of annual depreciation =Rs. 1,00,000 xre.0.275490 -Rs. 27,549

Date	Particulars	**Rupees**	**Date**	**Particulars**	**Rupees**
1st Year	To Bank	100000.00	1st Year	By Depreciation	27549.00
	To Interest At 4%	4000.00		By Balance c/d	76451.00
		104000.00			104000.00
2nd Year	To Balance b/d	76451.00	2nd Year	By Depreciation	27549.00
	To Interest At 4%	3058.04		By Balance c/d	51960.04
		79509.04			79509.04
3rdYear	To Balance b/d	51960.04	3rd Year	By Depreciation	27549.00
	To Interest At 4%	2078.40		By Balance c/d	26489.44
		54038.44			54038.44

Assets purchased during the year.
If assets are purchased during the year, we can make depreciation on proportionate period.

It can be done as under

Proportionate depreciation =
Depreciation for the year X No of days from the date of purchase/365.

Date of Purchase	Amount	Depreciation for the whole year at 10%	No of days from date of purchase up to 31-3-18	Depreciation for the proportionate period
15-May-17	10000	1000	321	879
16-Jul-17	15000	1500	259	1064
17-Sep-17	25000	2500	196	1342
18-Dec-17	35000	3500	104	997

EXAMPLE: Since the companies have different categories of fixed assets carrying different rates of depreciation, they maintain a detailed Depreciation Schedule as under.

Illustrative Depreciation Schedule

S. N	Particulars	Land	Building	Plant & Machinery	Computers	Furniture &Fixtures	Electrical Equipment	Vehicles	Total
a)	Cost								
1	Opening	0.34	10.14	1.07	0.28	1.25	1.36	1.48	15.92
2	Additions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	Deductions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Closing	0.34	10.14	1.07	0.28	1.25	1.36	1.48	15.92
b)	Depreciation								
5	Opening	0.00	1.10	0.15	0.09	0.12	0.32	0.27	2.05
6	Additions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	Deductions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	Closing	0.00	1.99	0.29	0.17	0.23	0.58	0.51	3.77
c)	Written Down Value								
9	Opening	0.34	9.04	0.92	0.19	1.13	1.04	1.21	13.87
10	Additions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	Deductions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	Value for Depreciation	0.34	9.04	0.92	0.19	1.13	1.04	1.21	13.87
13	Rate of Depreciation	0.00 %	10.00 %	15.00 %	40.00 %	10.00 %	25.00 %	20.00 %	
14	Depreciation for the year	0.00	0.89	0.14	0.08	0.11	0.26	0.24	1.72
15	Closing WDV	0.34	8.15	0.78	0.11	1.02	0.78	0.97	12.15

2.5 ADJUSTMENT ENTRIES

Closing Entries

Periodically, usually at the end of the accounting period, all revenue and expense account balances are transferred to an account called income summary or profit and loss account and are then said to be closed. The balance in the profit and loss account, which is the net income or net loss for the period, is then transferred to the capital account and thus the profit and loss account is also closed. In the case of corporation, the net income or net loss is transferred to retained earnings account which is a part of owners' equity. The entries

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which are passed for transferring these accounts are called as closing entries. Because of this periodic closing of revenue and expense accounts, they are called as temporary or nominal accounts. On the other hand, the assets, liabilities and owners' equity accounts, the balances of which are shown on the balance sheet and are carried forward from year to year are called as permanent or real accounts.

The principle of framing a closing entry is very simple. If an account is having a debit balance, then it is credited and the profit and loss account is debited. Similarly, if a particular account is having a credit balance, it is closed by debiting it and crediting the profit and loss account. In our example sales account and interest account are revenues, and purchases account and salaries account are expenses. Purchases account is an expense because the entire goods have been sold out in the accounting period itself and hence, they become cost of goods sold out. This aspect would become clearer when the reader proceeds to the lessons on profit and loss account. The closing entries would appear as follows:

Adjustment Entries

Because of the adopting of accrual accounting, after the preparation of trial balance, adjustments relating to the accounting period have to be made in order to make the financial statements complete. These adjustments are needed for transactions which have not been recorded but which affect the financial position and operating results of the business.

A concern is required to pass certain entries at the end of the year to adjust the various items of Incomes and expenses, such entries are called as adjustment entries.

Closing Stock, A/c	Dr.
To Trading A/c	
Outstanding Expenses	
Expenses A/c	Dr.
To Expenses Outstanding A/c	
Prepaid Expenses	
Prepaid Expenses A/c	Dr.
To Expenses A/c	
Accrued Income	
Accrued Income A/c	Dr.
To Income A/c	
Income Received in Advance	
Income A/c	Dr.

To Income Received in Advance A/c

Depreciation on Asset

Depreciation A/c Dr.

To Asset A/c

Interest on Capital

Interest on Capital A/c Dr.

To Capital A/c

Interest on Drawing

Capital A/c Dr.

To Interest on Drawings A/c

Bad debts

Bad Debts A/c Dr.

To Debtors A/c

Provision for bad and doubtful debts

Profit & Loss A/c Dr.

To Provision for Doubtful Debts A/c

Provision for Discount on Debtors

Profit and Loss A/c Dr.

To Provision for Discount on Debtors A/c

Provision for Discount on Creditors

Provision for Discount on Creditors A/c Dr.

To Profit and Loss A/c

Loss of Stock by Accident, Fire etc.

Abnormal Loss A/c Dr.

To Trading A/c

EXAMPLE : Pass the necessary journal entries for the following transactions

1. Insurance Premium of Rs. 12,000 was paid on 1-11-2017
2. Telephone bill of Rs. 13,000 for March 2018 was paid in April 2018

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3. Electricity bill of Rs. 10,000 for March 2018 was paid in April 2018
4. Interest on Fixed deposit of Rs. 5,000 for 2017-18 was received in April 2018
5. An advance of Rs.20000 has been received in March 2018 against order but goods are not yet supplied.

Solution:

Date	Particulars	LF		
31 March 2018	Prepaid Expenses A/c Dr.	1	7,000	
31 March 2018	To Insurance A/c			7,000
31 March 2018	Telephone Expenses A/c Dr.	2	13,000	
31 March 2018	To Outstanding Expenses A/c			13,000
31 March 2018	Electricity Expenses A/c Dr.		10,000	
31 March 2018	To Outstanding Expenses A/c			10,000
31 March 2018	Accrued Income A/c Dr.		5,000	
31 March 2018	To Interest Received A/c			5,000
31 March 2018	Sales A/c Dr.		20000	
	To Advance Income A/c			20000

EXAMPLE: Calculate the provision on Debtors based on the following information

1. Debtors as per Trial Balance. Rs. 50,000.
2. A credit sale of Rs. 2000 was not entered in the register.
3. A credit sale of Rs. 2000 was entered as Rs. 3 000 in the register.
4. New Bad Debts were Identified to the tune of Rs. 3,000.
5. Opening provision on Debtors Rs. 2,000.
6. Provision on Debtors required 5% of Debtors.

Answer:

1	Debtors as per Trial Balance	50000	1
2	Additions if any	2000	2
3	Sub Total 1	52000	3
4	Deductions if any	1000	4
5	Sub Total 2	51000	5
6	New Bad Debts Identified	3000	6
7	Value of Debtors for provisioning	48000	7
8	Rate of Provision	5%	8
9	Provision required	2400	9
10	Provision already made	2000	10
11	New provision to be made	400	11
	Entries to be passed		

Debit	P L Provision on Doubtful Debts	400	Debit
Credit	G L Provision on Doubtful Debts	400	Credit

2.6 RECTIFICATION OF ERRORS

Identification of Errors

Errors occur when some transactions are incorrectly entered in the account books. Identification and rectification of the errors is necessary to ensure the correctness of final accounts.

Need of Rectification:

1. For the preparation of correct Accounting Records.
2. Preparation of P & L A/c with corrected figures to ascertain correct Profit or Loss.
3. To find out the true financial position of the firm by preparing Balance Sheet with corrected figures.

CLASSIFICATION OF ERRORS

Error of Omission **This error occurs when a transaction is not recorded in the Journal. This type of error is difficult to locate because it is not reflected in the Trial Balance as both debit and credit entries related to a transaction are missing.**	Sub-Types with Examples Error of Complete Omission Goods sold to X on Credit but not recorded in Sales Book. *(b) Partial Omission Goods sold to X on Credit recorded in Sales Book but not posted to the A/c of X, thus sales A/c is credited but X is not debited creating Short debit. This error will affect Trial Balance.
Error of Commission **(These errors arc caused due to wrong recording of transactions, wrong totalling of subsidiary books or Ledger A/cs, Wrong posting and wrong carry forward)**	(a) Error of Recording in the Book Of Original Entry Goods purchased from Vishal for Rs. 459, recorded as Rs. 549, in the Purchase Book. (This error will not affect Trial Balance as same amount will be posted in both the A/cs, Purchase A/c as well as Ravi.) (b) Wrong Totalling of Subsidiary Book. Example: Purchase Book has been under cast (short totalled) by Rs. 100, Purchase A/c will be debited short by Rs. 100, decreasing the debit side of Trial Balance by Rs. 100. Error in Totalling or Balancing of Ledger A/cs

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This error occurs while posting and balancing of accounts in Ledger	Example: Creditors A/c has been balanced short by Rs. 500, then Trial Balance will Rs. 500 short in Credit side. Error of Posting (i) Posting to the wrong side but correct account. Goods sold to X for Rs. 500, entered to the credit of X's A/c instead of posting to the debit side of his account. (ii) Posting with wrong amount. (iii) Posting twice in an A/c. (iv) Errors in posting to the wrong A/c but correct side don't affect Trial Balance. (e) Error in carrying forward. Total of purchase book Rs. 2,500 is carried forward as Rs. 2050 Creating short debit of Rs. 450, in Purchase A/c and in turn short debit in Trial Balance
III. Errors of Principles. **(These errors are caused due to the violation of accounting principles i.e. allocation between Capital and Revenue Items.**	a) Treating capital items as revenue item Example: Wages paid for the installation of new machinery charged to Wages A/c instead of Machinery A/c. (b) Treating Revenue Items as Capital Item Example: Rs. 200 paid for the repairs of an old Machinery but debited to Machinery A/c instead of Repairs A/c.
IV. Compensating Errors **(Two or more errors committed in such a way that the net effect of these errors of the debit and credits of A/cs is nil).** **This error occurs when the entries corresponding to two or more transactions, which are incorrectly entered in the account books, compensate each other**	Example: On July, 1st 2017 a sum of Rs. 2,000 paid to Vishal is posted as Rs. 200 to the Debit of his A/c and on July 20th, 2071 a sum of Rs. 200 paid to Vikas has been posted as Rs. 2,000 to the Debit of his A/c. Net Effect will be zero.

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From Rectification point of view, errors are classified into the following two categories only:

Case I: Errors which don't affect the Trial Balance or Two-Sided Errors

Case II: Errors which affect the Trial Balance or one-Sided Errors.

Errors not Affecting Trial Balance

a. Errors of complete omission.
b. Wrong recording in the books of original entry.
c. Complete omission from posting to the A/cs.
d. Errors of posting to the wrong A/c but on the correct side.
e. Compensating errors.
f. Errors of principle.

Errors Affecting Trial Balance

a. Errors in totaling of Subsidiary books or ledger A/cs - i.e., overcast or undercast.
b. Error in the Balancing of Ledger A/cs.
c. Error in posting to the correct A/c but with the wrong amount or to the wrong side or both.
d. Errors of Partial commission
e. Omitting to show an A/c in the Trial Balance.

Location of Error

The omission, commission and compensating errors cannot be located from the Trial Balance. Location of such errors can only be determined when:

a. Statements of accounts are received from the suppliers, customers and other business associates
b. Statements of accounts are sent to the customers
c. Internal and external audits are performed

Errors like principal errors are easily located when there is a mismatch between the debit and credit totals of the Trial Balance.

To locate such errors, an accountant performs any of the following tasks:

a. Computes the difference between debit and credit totals in Trial Balance and Accounting and Financial Management Performs various operations on it to determine the error entry
b. Checks the schedules of sundry creditors and debtors.
c. Checks the total of all the subsidiary books such as Sales Book and Purchase Book.
d. Checks all the entries in Journal and their posting in Ledger.

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Suspense Account

a. It is a temporary account to which the difference in the Trial Balance is transferred.

b. If the total of credit side is more than the debit side a Suspense Account with Debit balance equal to the amount of difference is opened and shown on the debit side there by tallying the trial balance.

c. If the total of credit side is less than the debit side a Suspense Account with Credit balance equal to the amount of difference is opened and shown on the credit side there by tallying the trial balance.

d. It should be opened only when the accountant fails to determine the location of errors.

e. It is closed when the accounting entries are passed to rectify the errors that resulted in the difference in the Trial Balance.

f. When in spite of the effects, the Trial Balance does not tally, the difference is put to a newly opened account named Suspense A/c.

g. Suspense A/c is an imaginary account, opened temporarily for the purpose of reconciling a Trial Balance.

h. Later on, when the errors affecting the Trial Balance are located, rectification entries are passed through the Suspense A/c.

i. When all the errors are located and rectified, the Suspense A/c will be automatically closed i.e., it will show zero balance.

j. But if suspense A/c still shows a balance it will indicate that certain errors are still to be discovered and rectified.

RECTIFICATION OF ERRORS

When the errors are detected, these have to be rectified in the books of accounts. Rectification of errors depends upon the type of error and the time of depiction of an error.

1. RECTIFICATION OF TWO-SIDED ERRORS

Two sided errors are those errors which affect two sides of Accounts. These errors don't affect Trial Balance as discussed earlier. These Errors are rectified by passing a Journal entry irrespective of the time of rectification. In other words, their rectifying entry will be same whether (a) the error is depicted before preparing Trial Balance or (b) after the preparation of Trial Balance but before the Final A/cs are prepared.

Steps for Rectification

a. Locate the Effect of Error on Different Accounts

b. The Account Showing Excess credit should be Debited.

c. The Account Showing Excess Debit should be Credited.

d. The Account Showing Short Debit should be Debited.

e. The Account Showing Short Credit should be Credited.

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EXAMPLE: Rectify the follow errors:

a. Without opening a Suspense A/c

1. Rs. 400 Paid to X were entered in the Cash Book but omitted to be posted to the Ledger.
2. Rs. 400 Paid to X were debited to his A/c as Rs. 40.
3. Rs. 400 paid to X were debited to his A/c as Rs. 4000 (for Thousand).
4. Rs.400 Paid to X were Credited to his A/c.
5. Rs.400 Paid to X were Credited to his A/c as Rs. 40.
6. Sales Book was overcast by Rs. 200.
7. Sales Return Book undercast by Rs. 400.
8. Purchase Return Book undercast by Rs. 500.

Solution:

a. Without opening a Suspense A/c, if the errors (single side) are detected before preparing Tri balance then these are rectified by directly the amount in the concerned Led, Accounts.

1. X's A/c will be debited by Rs. 400 as it is a case of partial commission.
2. X's A/c was debited show by Rs. 360 (400-40) there for the rectification will be done by debiting X's A/c by Rs. 360.
3. X's A/c was debited in excess by Rs. 3600 (4000-400) therefore rectification will be done by Crediting the X's A/c by Rs. 3,600.
4. X's A/c was Credited by Rs. 400 instead of debiting by Rs. 400, therefore rectification will be done by debiting the X's A/c by Rs. 400+400 i.e. Rs. 800 (Rs. 400 to cancel the effect of wrong credit and Rs. 400 for actually debiting the A/c).
5. X's is wrongly credited by Rs. 40 instead of debiting it by Rs. 400. Hence rectification will be done by Debiting the x's A/c by Rs. 440.
6. Sales Book overcast means Sales A/c is Credited is excess by Rs. 200 whereas customers have been debited by the correct amount.

   Hence rectification will be done by debiting - Sales A/c by Rs. 200.
7. Sales Return Book total Undercast by Rs. 400 means Sales Return A/c is debited short by Rs. 400. Hence Rectification will be done by debiting the Sales Return A/c by Rs. 400.
8. Purchase Return Book undercast by Rs.' 500 means Purchase Return A/c is credited short by Rs. 500.

   Hence rectification will be done by Crediting the Purchase Return A/c by Rs. 500.

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Exact Solution:

In this example the rectification in X's A/c from Error No. 1 to 4 will be shown as follows: X's Account

Date	Particular	L.F	(Rs)
	To omission of posting of Cash Paid		400
	To Error in Posting with the Wrong Amount By Error in Posting With the wrong Amount		360 3,600
	To Error in Posting to the Wrong side		800

EXAMPLE: An accountant of a trading concern could not agree the Trial Balance. There was an excess credit of Rs. 100 which he transferred to the suspense A/c.

The following errors were then subsequently discovered:

a. Received Rs. 550 from X, were posted to the debit of his account.

b. Rs. 100 being purchase returns were posted to the debit of purchases A/c.

c. Discount received Rs. 200 Correctly entered in the Cash Book but posted to the debit of the discount A/c.

d. Salary paid Rs. 3,500 to x were posted to the salary A/c as Rs. 2,500.

e. A purchase of Rs. 400 has been passed through Sales Book. However, the customer's account has been correctly credited.

Give Rectifying entries and Suspense A/c Rectifying Journal Entries:

Solution:

Date	Particulars	L.F	Debit Amount	Credit Amount
	Suspense A/c Dr To X (Amount received from x was posted to the wrong side now corrected)		1100	 1100
	Suspense A/c Dr To Purchase A/c To Purchase Returns A/c (For the purchase return wrongly posted to the purchases A/c)		200	 100 100

	Suspense A/c Dr To Discount A/c (Discount received was posted to the wrong side of discount, A/c)		400	400
	Salary A/c Dr To Suspense A/c (Salary paid was posted to salary A/c with lesser amount)		1000	1000
	Purchases A/c Dr Sales A/c Dr To Suspense A/c (Purchases has been passed through sales book but the customer's A/c has been correctly credited)		400 400	800

Suspense A/c

Date/ Error	Particular	L.F	(Rs)	Date	Particular	L.F	(Rs)
	To Difference in		100	(4)	By Salary A/c		1000
	the Trial Balance			(5)	By Purchases A/c		400
(I)	To x		1100	(i) (ii)	By Sales A/c		400
2)	To Purchase A/c		100				
3)	To Return A/c		100		Balance c/d		Nil
)	To Discount A/c		400				
			1800				1800

Since the Balance of the suspense A/c is nil, it indicates that all the errors have been rectified.

2.7 BANK RECONCILIATION STATEMENT

Usually, all the firms open a current account with the bank as there are so many transactions and record these transactions in the Bank column of the Cash Book. Bank also maintains a separate ledger account of each firm (customer) and periodically supplies a copy of the account to the firm for information. This copy of the firm's Account supplied by the bank

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is known as Bank Statement or Bank Pass Book. Since all the transactions with the bank are entered in both the books Cash Book and Pass Book, the balances of the two books should tally with each other. But usually, the two balances don't tally. Bank Reconciliation Statement is prepared to reconcile the difference between the Bank Balance shown by the Cash Book and Bank Pass Book.

DEFINITION:
A schedule showing the items of difference between the bank statement and the bank column of Cash Book is known as Bank Reconciliation Statement.

2.8 CAUSES FOR DIFFERENCE IN BALANCES

The differences may be caused by either

1. Time gap in recording transactions or
2. Errors Committed in recording transactions.

1. Differences Caused by the time gap

Reasons for the time gap in recording the transactions in the two books (Cash Book and Pass Book) are as given below-

- Cheques issued but not yet presented for payment in the bank.
- Cheques deposited or paid into the bank for collection but not yet credited by the bank.
- Cheques deposited but dishonored by the bank.
- Interest allowed by the bank.
- Interest on overdraft, bank charges, commission etc. charged by the bank.
- Direct Deposit by the customers into the bank.
- Interest, Dividend etc. collected by the bank.
- Direct payments made by the bank on behalf of customer as per standing instruction.

2. Differences caused by Errors Committed

Such errors may be of two types

a. Errors committed by the firm

- Cheques issued to some creditors but omitted to be recorded in the Cash Book or recorded twice.
- Cheques deposited into the bank omitted to be entered in the Cash Book or recorded twice.
- Error in totaling or balancing the bank column of the Cash Book.

b. Errors committed by the bank

Something bank records a wrong entry in the customer's account which causes a difference in the two balances.

Need and Importance:

- It helps in locating and rectifying the errors or omissions committed either by the firm or by the bank.
- Customer becomes sure of the correctness of the bank balance shown by the cash book.
- Facilitates the preparation of amended or revised Cash Book.
- Reduces the chances of fraud by the staff of the firm or bank.
- Helps in keeping a track of the cheques deposited for collection.

Procedure of Preparing Bank Reconciliation Statement

A Bank Reconciliation Statement is prepared when we get the duly completed Pass Book from the Bank. On receiving the Cash Book

- First of all, tally the Debit side entries of the cash book with the Credit side entries of the Pass Book and vice versa.
- Tick the items appearing in both the book.
- Unticked items will be the points of differences.
- A BRS is then prepared by taking either the balance as per Cash Book or Pass Book as a starting point.

Important Points:

- If the Starting point is Cash Book Balance, then the ending point will be Pass Book Balance.
- If the starting point is Pass Book Balance then the ending point will be the Balance as per Cash Book.
- Debit Balance as per Cash Book or Credit Balance as per Pass Book, means that the firm has that much amount of deposited at the bank also called favorable balance write the amount under + item.
- Credit Balance as per Cash Book or Debit Balance as per Pass Book, means that this much amount has been withdrawn in excess of deposit also called overdraft or unfavorable balance write the amount under - item.
- Method of Preparing BRS Starting with by the Balance / overdraft as per Bank Column of Cash Book.

2.9 CONCEPT OF PREPARATION OF FINANCIAL STATEMENTS

The primary objective of any business concern is to earn income. Ascertainment of the periodic income of a business enterprise is perhaps the important objective of the

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accounting process. This objective is achieved by the preparation of profit and loss account or the income statement.

Profit and loss account is generally considered to be of greatest interest and importance to end users of accounting information. The profit and loss account enables all concerned to find out whether the business operations have been profitable or not during a particular period. Usually, the profit and loss account is accompanied by the balance sheet as on the last date of the accounting period for which the profit and loss account is prepared. A balance sheet shows the financial position of a business enterprise as of a specified moment of time. It contains a list of the assets, the liabilities and the capital of a business entity as of a specified date, usually at the close of the last day of a month or a year. While the profit and loss account is categorized as a flow report (for a particular period), the balance sheet is categorized as a status report (as on a particular date).

2.10 PROFITABILITY STATEMENT AND BALANCE SHEET

Profit and loss account consists of two elements: one element is the inflows that result from the sale of goods and services to customers which are called as revenues. The other element reports the outflows that were made in order to generate those revenues; these are called as expenses.

Income is the amount by which revenues exceed expenses. The term 'net income' is used to indicate the excess of all the revenues over all the expenses.

The basic equation is: Revenue - Expenses = Net Income

This is in accordance with the matching concept.

This financial statement is referred to as "Profit and Loss Account" in more technical language. The purpose of this financial statement is to disclose the result of operations of the business transactions during a given period of time. As such, by nature, profit & loss account is a period statement which relates to a specific duration of time. Hence, profit and loss account are always referred to as "Profit and Loss Account for the year ended on 31st March 2017."

Profit and loss account may have the following four components -

a. **Manufacturing Account** - This part of Profit and Loss Account discloses the result of manufacturing operations carried out by the organization. The final result disclosed by the Manufacturing Account is the Cost of Production incurred by the organization.

   Following is the specimen of Manufacturing Account. Manufacturing Account for the year ended 31st March 2017.

Particulars	Amount	Particulars	Amount
Opening Stock		Closing Stock	

Raw Material		Raw Material	
Work in Progress		Work in Progress	
Purchases of Raw Material		Cost of Production	
Carriage Inward			

Wages Paid
Power and Fuel
Consumable Stores
Manufacturing Expenses
Depreciation on Production Assets
Total Total

b. Trading Account - This part of Profit and Loss Account discloses the result of trading operations carried out by the organization. The final result disclosed by the Trading Account is the Gross Profit earned by the organization.

Following is the specimen of Trading Account.

Trading Account for the year ended on 31st March 2008		
Particulars Amount	Particulars	Amount
Opening Stock Finished Goods	Sales (Net of Sales Returns)	
Cost of Production (Brought from Manufacturing A/c)	Closing Stock Finished Goods	
Gross Profit		
Total Total		

c. Profit and Loss Account - This part of Profit and Loss Account discloses the final result of business transactions of the organization. The final result disclosed by the Profit and Loss Account is the Profit after Tax (PAT) earned by the organization.

Following is the specimen of Profit and Loss Account.

Profit & Loss Account for the year ended on 31st March 2017	Amount	Particulars	Amount
Particulars			
Administrative Expenses		Gross Profit b/fd	
Office Salaries			
Postage & Telephone		Other Income	

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Traveling & Conveyance		Discount Received	
Legal Charges		Commission Received	
Office Rent			
Depreciation		Non-Trading Income	
Audit Fees Interest Received			
Insurance Rent Received			
Repairs & Renewals		Abnormal Income	
Selling & Distribution Expenses		Profit on the sale of assets	
Advertisement			
Carriage Outward			

Free Samples
Bad Debts
Sales Commission
Financial Expenses
Interest & Bank Charges
Other Expenses
Loss on the sale of assets
Salary to Working Partners
Interest on Capital
Provision for Taxation

Net Profit after Taxes (Transferred to Capital Account)

	Total	**Total**
To taxes & insurance	10	
To depreciation	31	
To professional fees	4	
To other expenses	40	
To interest	50	
To net profit	263	
	740	740

Trading and Profit and Loss Account

Expenditure			Income	
To Opening Stock		200	By Sales	2,200
To purchases		1,000	By Closing stock	225
To direct mfg. expenses		500		
To Gross Profit		725		
		2,425		2,425
To salary		150	By gross profit	725
To electricity		75	By interest	5
To telephone		50	By other income	10
To travelling		15		
To rent		50		
To bad debts		2		
To taxes & insurance		10		
To professional fees		4		
To interest		50		
To depreciation		31		
To other expenses		40		
To net profit		263		
		740		740

The structure of the profitability statement can be drafted as below:

- Sales
- Less: Factory Cost
- Gross Profit
- Less: Administrative and Selling Overheads
- Operating Profits
- Less: Non-Operating Expenses
- Add: Non-Operating Incomes
- Profit before Tax
- Less: Taxes

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- Profit After Tax
- Less: Dividend Paid
- Retained Profit

Format of an Operating Statement

		3/31/2016	3/31/2017
1	Sales	36.64	20.30
2	Other income	0.00	0.01
	Total	36.64	20.31
4	Opening Stock of RM	0.00	0.00
	Purchase of RM	12.94	7.41
	Closing stock of RM	0.00	0.00
	Raw Material Consumed	12.94	7.41
	Direct labor	2.59	2.03
	Power & fuel	4.33	3.12
	Other Manufacturing Exp	7.82	0.49
	Change in finished goods	0.22	0.00
	Cost of goods sold	27.90	13.05
5	To Gross profit	8.74	7.26
	Gross Profit Margin	23.85%	35.71%
	Selling & Admin. Expenses	2.54	4.02
6	Profit Before DIT (PBDIT)	6.20	3.24
	Depreciation	2.05	1.72
7	Profit before Interest & Tax	4.15	1.52
	Interest on loan a/c	0.80	1.02
	Interest on Cash Credit	0.00	0.00
8	Total Interest	0.80	1.02
9	Profit Before Tax (PBT)	3.35	0.50
10	Provision for Tax	0.00	0.00
11	Profit after Tax (PAT)	3.35	0.50

	Net Profit Margin	9.14%	2.46%

The net income of an accounting period increases owner's equity because it belongs to the owner. To quote an example, goods costing Rs. 20,000 are sold on credit for Rs. 28,000. The result is that stock is reduced by Rs. 20,000 and a new asset namely debtor for Rs. 28,000 is created and the total assets increase by the difference of Rs. 8,000. Because of the dual aspect concept, we know that the equity side of the balance sheet would also increase by Rs. 8,000 and the increase would be in owner's equity. This is because the profit on sale of goods belongs to the owner. It is clear from the above example that income increases the owner's equity.

Income vs. Receipts:

Income of a period increases the owner's equity but it need not result in increase in cash balance. Loss of a period decreases owner's equity but it need not result in decrease in cash balance. Similarly, increase in cash balance need not result in increased income and owner's equity and decrease in cash balance need not denote loss and decrease in owners' equity. All these are due to the fact that income is not the same as cash receipt.

The following examples make clear the above point:

a. When goods costing Rs. 20,000 are sold on credit for Rs. 28,000 it results in an income of Rs. 8,000 but the cash balance does not increase.

b. When goods costing Rs. 18,000 are sold on credit for Rs. 15,000 there is a loss of Rs. 3,000 but there is no corresponding decrease in cash.

c. When a loan of Rs. 5,000 is borrowed the cash balance increases but there is no impact on income.

d. When a loan of Rs. 8,000 is repaid it decreases only the cash balance and not the income.

Expenses:

An expense is an item of cost applicable to an accounting period. It represents economic resources consumed during the current period. When expenditure is incurred, the cost involved is either an asset or an expense. If the benefits of the expenditure relate to further periods, it is an asset. If not, it is an expense of the current period. Over the entire life of an enterprise, most expenditure becomes expenses. But according to accounting period concept, accounts are prepared for each accounting period. Hence, we get the following four types of transactions relating to expenditure and expenses:

Expenditures That Are Also Expenses:

This is the simplest and most common type of transaction to account for. If an item is acquired during the year, it is expenditure. If the item is consumed in the same year, then the expenditure becomes expense.

E.g., Raw materials purchased are converted into saleable goods and are sold in the same year.

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Assets That Become Expenses:
When expenditures incurred result in benefits for the future period, they become assets. When such assets are used in subsequent years, they become expenses of the year in which they are used. For e.g., Inventory of finished goods are assets at the end of a particular accounting year. When they are sold in the next accounting year, they become expenses.

Expenditures That Are Not Expenses:
As already pointed, out when the benefits of the expenditure relate to future periods, they become assets and not expenses. This applies not only to fixed assets but also to inventories which remain unsold at the end of the accounting year. For e.g. The expenditure incurred on inventory remaining unsold is asset until it is sold out.

Expenses Not Yet Paid:
Some expenses would have been incurred in the accounting year but payment for the same would not have been made within the accounting year. These are called accrued expenses and are shown as liabilities at the year end.

Multiple-step form of income statement
There are three formulas you need to use for this method of calculating net income.

To calculate gross profit on your income statement, you use the formula:

Gross Profit = Net Sales - Cost of Goods Sold
To calculate operating income, you use the formula:

Operating Income = Gross Profit - Operating Expense
To calculate net income, you use the formula:

Net Income = Operating Income + Non-Operating Items
The advantage of multiple-step form of income statement over single step form and the "t" shaped profit and loss account is that there are a number of significant sub totals on the road to net income which lend themselves to significant analysis.

How to Prepare a Multi-Step Income Statement
Preparing a multi-step income statement is a more complex process than creating a single-step report. Here are the steps you need to follow to create a multiple-step income statement for your business.

1. **Select Your Reporting Period**
   Before you prepare your income statement, you need to select a reporting period. Typically, income statements are prepared monthly, quarterly or annually. Publicly traded corporations are required by law to prepare financial statements both quarterly and annually. Preparing statements every month can help you track how your profits change over time, which is valuable information to have when making

financial decisions about your business, like whether to invest in new equipment.

2. **Create a Document Header**
   The header of your multi-step income statement conveys important information to readers. It states the name of your company, it identifies the document as an income statement and it defines the reporting period covered by the document.

3. **Add Operating Revenues**
   The top section of your multi-step income statement covers your total operating activities. First, add your operating revenues, which is the sales revenue generated from selling your goods or services.

4. **Add Operating Expenses**
   Next, add your total operating expenses to the operating activities section. This would include cost of goods sold, as well as costs such as advertising expenses, salaries and administrative expenses, including office supplies and rent.

5. **Calculate Gross Profit**
   To calculate the gross profit, subtract the cost of goods sold from the net sales. Add the final number as a line item under the cost of goods sold and title it Gross Profit.

6. **Calculate Operating Income**
   Next, you'll need to calculate operating income. To do so, subtract your operating expenses from your gross profit. Add the final calculation as a line item at the bottom of your operating activities section, titled Net Operating Income or Income from Operations.

7. **Add Non-Operating Revenues and Expenses**
   In the bottom section of your income statement, below your operating activities, create a section for your non-operating activities. Add your revenues and expenses from non-operating activities, including interest and the sale or purchase of investments.

8. **Calculate Net Income**
   The final step in creating a multi-step income statement is calculating net income. To do so, add together your operating income and your non-operating items. Add the total to the bottom of the income statement as Net Income. If it is a positive number, you're reporting a profit. If the total is a negative number, you're recording a los

Operating Statement of TCS Ltd.

(Amount in crores)	Consolidated	
	2014-15	2013-14
Revenue from operations	94,648.41	81,809.36
Operating expenditure	70,166.70	56,656.57

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Earnings before interest, tax, depreciation and amortization (EBITDA)	24,481.71	25,152.79
Other income (net)	3,229.91	1,636.74
Finance costs	104.19	38.52
Depreciation and amortization expense	1,798.69	1,349.15
Profit before exceptional item and tax	25,808.74	25,401.86
Exceptional item	489.75	-
Profit before tax (PBT)	26,298.49	25,401.86
Tax expense	6,238.79	6,069.99
Profit for the year before minority interest	20,059.70	19,331.87
Minority interest	207.52	168
Profit for the year (PAT)	19,852.18	19,163.87
Adjustment for amalgamation of acquired subsidiaries	-	-
Balance brought forward from previous year	39,504.51	29,529.97
Amount available for appropriation	59,356.69	48,693.84
Appropriations		
Interim dividends on equity shares (excluding tax)	10,772.92	2,349.87
Proposed dividend on equity shares (excluding tax)	4,700.95	3,917.46
Dividend on redeemable preference shares (excluding tax)	-	28.76
Tax on dividends (interim and proposed)	2,635.69	795.68
Write back of tax on dividends o f prior year	-20.97	-
Capital redemption reserve	255.57	157.12
General reserve	1,953.64	1,883.41
Statutory reserve	46.24	57.03
Balance carried to balance sheet	39,012.65	39,504.51

Observations on operating statements

Revenues:

The revenue of the Company aggregated ‘ 94,648.41 crores in fiscal 2015 (‘ 81,809.36 crores in fiscal 2014), registering a growth of 15.69%. In terms of US Dollars, the revenue in fiscal 2015 was $15.45 billion ($13.44 billion in fiscal 2014) registering a growth of 14.96%.

PREPARATION OF FINANCIAL STATEMENT

In fiscal 2015, there was a special, one-time reward to eligible employees, which increased

the employee expenses by' 2,627.91 crores.

Earnings before interest, tax, depreciation and amortization (EBITDA).
The EBITDA excluding one-time adjustment for employee reward aggregated' 27,109.62 crores in fiscal 2015 (' 25,152.79 crores in fiscal 2014) - a growth of 7.78%. EBITDA as reported aggregated' 24,481.71 crores.

Profit before tax (PBT)
PBT excluding one-time adjustment for employee reward aggregated' 28,926.40 crores in fiscal 2015 (' 25,401.86 crores in fiscal 2014) - a growth of 13.88%. PBT as reported aggregated' 26,298.49 crores.

Profit after tax (PAT)
PAT excluding one-time adjustment for employee reward aggregated' 21,911.85 crores in fiscal 2015 (' 19,163.87 crores in fiscal 2014) - a growth of 14.34%. PAT as reported aggregated' 19,852.18 crores.

Earnings per share (EPS)
EPS excluding one-time adjustment for employee reward aggregated ' 111.87 in fiscal 2015 (' 97.67 in fiscal 2014)- a growth of 14.54%. EPS as reported was' 101.35.

The business growth in fiscal 2015 was in line with the business growth in fiscal 2014. However, the total revenue growth in fiscal 2015 was lower than that of fiscal 2014 primarily due to impact of exchange rate fluctuations (-1.32% in fiscal 2015, 12.61% in fiscal2014).

TCS' existence as a listed company over the past eleven years has been marked by continuous value creation and setting increasingly higher standards of performance. While relentlessly pursuing excellence in all its activities, TCS has been generating the wealth for its stakeholders

Dividend
Based on the Company's performance, the directors are pleased to recommend for approval of the members a final dividend of' 24 per share for the financial year 2014-15 taking the total dividend to ' 79 per share (previous year' 32 per share), including a special dividend of' 40 per share. The final dividend on equity shares, if approved by the members would involve a cash outflow of ' 5,640.86 crores including dividend tax. The total dividend on equity shares including dividend tax for the financial year 2014-15 would aggregate' 18,065.41 crores.

Explanation of Items on the Income Statement

The heading of the income statement must show:

a. The business enterprise to which it relates.
b. The name of the statement (income statement).
c. The time period covered (year ended 31st march of the relevant year).

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The income statement is generally followed by various schedules that give detailed account of the items, listed on them. Information about these schedules are given against each item in the financial statements.

One important objective in reporting revenue on an income statement is to disclose the major source of revenue and to separate it from miscellaneous sources. For most companies the major source of revenue is the sale of goods and services.

Sales Revenue:

An income statement often reports several separate items in the sales revenue section, the net of which is the net sales figure. Gross sales are the total invoice price of the goods sold or services rendered during the period. It should not include sales taxes or excise duties that may be charged to the customers. Such taxes are not revenues but rather represent collections that the business makes on behalf of the government and are liabilities to the government until paid. Similarly, postage, freight or other items billed to the customers at cost are not revenues. These items do not appear in the sales figure but instead are an offset to the costs the company incurs for them. Sales returns and allowances represent the sales values of goods that were returned by customers or allowance made to customers because the goods were defective. The amount can be subtracted from the sales figure directly without showing it as a separate item on the income statement. But it is always better to show them separately.

Cash discount Vs. Trade discount

Sometimes called as cash discounts, sales discounts are the amount of discounts allowed to customers for prompt payment. For e.g. If a business offers a 3% discount and if sales are Rs. 10,000 the business receives only Rs. 9,700 in cash and records the balance Rs. 300 as sales discount. There is another kind of discount called as trade discount which is given by the wholesaler or manufacturer to the retailers to enable them to sell at catalogue price and make a profit: e.g., List less 30 percent. Trade discount does not appear in the accounting records at all.

Miscellaneous or Secondary Sources of Revenues:

These are revenues earned from activities not associated with the sale of the enterprise s goods and services. Interest or dividends earned on marketable securities, royalties, rents and gains on disposal of assets are examples of this type of revenues. For e.g. In the case of its operating loss has been converted into net profit only because of other income, other than sales revenue.

Cost of Goods Sold:

When income is increased by the sale value of goods or services sold, it is also decreased by the cost of these goods or services. The cost of goods or services sold is called the cost of sales. In manufacturing firms and retailing business it is often called the cost of goods sold.

The complexity of calculation of cost of goods sold varies depending upon the nature of the business. **In the case of a trading concern which deals in commodities it is very simple**

to calculate the most of goods sold and it is done as follows:

Opening stock	xxx	
Add: purchase	xxx	
Freight	xxx	
Goods available for sale	xxx	
Less: closing stock		xxx
Cost of goods sold		xxx

The calculation becomes a complicated process in the case of manufacturing concern, especially when a number of products are manufactured because it involves the calculation of the work in progress and valuation of inventory. The cost of goods sold in the case of would have been calculated as given in example.

EXAMPLE: Cost of Goods Sold

Opening Stock	4,436
Raw Materials Consumed	22,151
Packing Materials Consumed	48,536
Excise Duty	7,805
Total	82,928
Less: Closing Stock	4,242
Cost Of Goods Sold	78,686

Gross Profit:

The excess of sales revenue over cost of goods sold is gross margin or gross profit. In the case of multiple-step income statement it is shown as a separate item. Significant managerial decisions can be taken by calculating the percentage of gross profit on sale. This percentage indicates the average markup obtained on products sold. The percentage varies widely among industries, but healthy companies in the same industry tend to have similar gross profit percentages.

Operating Expenses:

Expenses which are incurred for running the business and which are not directly related to the company's production or trading are collectively called as operating expenses. Usually operating expenses include administration expenses, finance expenses, depreciation and selling and distribution expenses. Administration expenses generally include personnel

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expenses also. However sometimes personnel expenses may be shown separately under the heading establishment expenses.

Until recently most companies included expenses on research and development as part of general and administrative expenses. But now-a-days the financial accounting standards board (fasb) requires that this amount should be shown separately. This is so because the expenditure or research and development could provide an important clue as to how cautious the company is in keeping its products and services up to date.

Operating Profit: Operating profit is obtained when operating expenses are deducted from gross profit.

Non-Operating Expenses:
These are expenses which are not related to the activities of the business e.g., Loss on sale of asset, discount on shares written off etc.

These expenses are deducted from the income obtained after adding other incomes to the operating profit. Other incomes or miscellaneous receipts have already been explained. The resultant profit is called as profit (or) earnings before interest and tax (EBIT).

Interest Expenses:
Interest expense arises when part of the expenses is met from borrowed funds. The FASB requires separate disclosure of interest expense. This item of expense is deducted from income or earnings before interest and tax. The resultant figure is profit (or) earnings before tax (EBT).

Income Tax:
The provision for tax is estimated based on the quantum of profit before tax. As per the corporate tax laws, the amount of tax payable is determined not on the basis of reported net profit but the net profit arrived at has to be recomputed and adjusted for determining the tax liability. That is why the liability is always shown as a provision.

Net Profit:
This is the amount of profit finally available to the enterprise for Appropriation. Net profit is reported not only in total but also per share of stock. This per share amount is obtained by dividing the total amount of net profit by the number of shares outstanding. The net profit is usually referred to as profit or earnings after tax. This profit could either be distributed as dividends to shareholders or retained in the business. Just like gross profit percentage, net profit percentage on sales can also be calculated which will be of great use for managerial analysis.

BALANCE SHEET

PREPARATION OF FINANCIAL STATEMENT

The purpose of this financial statement is to disclose the financial status of the organization in terms of its assets and liabilities at any given point of time. Thus, in simple language, Balance Sheet is a listing of the assets and liabilities of an organization at any given point of time. Whichever sources are used by an organization for raising the required amount of

funds, create an obligation or liability for the organization and whichever ways the funds are used or applied by an organization create the properties or assets for the organization. Hence, in practical circumstances, the liabilities are referred to as "Sources of Funds" and the assets are referred to as "Application of Funds". As such, by nature, the Balance Sheet is a positive statement in the sense that it relates to a specific point of time or date. Hence, the Balance Sheet is always referred to as "Balance Sheet as on 31st March 2017."

Balance sheet is a statement of Liabilities and Assets as on a given date. The balance sheet is basically a historical report showing the cumulative effect of past transactions. It is often described as a detailed expression of the following fundamental accounting equation:

Assets = Liabilities + Owners' Equity (Capital)
Assets are costs which represent expected future economic benefits to the business enterprise. However, the rights to assets have been acquired by the Enterprise as a result of past transactions.

Liabilities also result from past transactions. They represent obligations which require settlement in the future either by conveying assets or by performing services. Implicit in these concepts of the nature of assets and liabilities is the meaning of owners' equity as the residual interest in the assets of the enterprise.

Liabilities: Amount owed to others. They represent a source of funds. Liabilities have credit balances.

Assets: Amount owed to you by others. Assets have debit balances.

Every credit has corresponding debit and vice versa. Hence, the balance sheet should always tally.

Overview of a balance sheet
Liabilities: 1) Owned Funds 2) Term Liabilities 3) Current Liabilities

Assets l) Fixed Assets 2) Non-Current Assets 3) Current Assets

Components of liabilities
There are three groups of sources of funds.

a. Net Owned Funds (NOF)= Money owned by the owner. Also called as TANGIBLE NET WORTH
b. Term Liabilities. Amount payable after one year. Also called as Non-Current Liabilities
c. Current Liabilities. Amount payable within one year.

Classification of Sources
All the liabilities are classified into two sources.

1. Long Term Source. LTS= a) Owned Funds + b) Term Liabilities.
2. Short Term Source. STS= Current Liabilities.

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Components of Owned Funds

Paid up Capital + Free Reserves + Profit – Loss – Drawings.

It is also called as Equity or Tangible Net Worth, More the equity better the financial health of a firm. It is expected to be one third of total debts.

Glossary of Capital

1. Authorized Capital. The Maximum capital that a company can raise.
2. Issued Capital. Capital offered to the public for subscription.
3. Subscribed Capital. Capital for which the public has submitted their applications.
4. Called up Capital which has been called by a company for payment.
5. Paid up Capital Amount paid by shareholders.

Components of Term Liabilities

1. Borrowings from Friends & Relatives.
2. Borrowings from Term Lending Institutions. DFIs.
3. Borrowings (Term Loans) from Banks.
4. Deferred Tax Liability.
5. Debentures.
6. Public Deposits.
7. Other liabilities payable after one year.

Components of Current Liabilities

1. Cash Credit (overdraft) from Bank.
2. Instalments of Term Loans payable within 12 months.
3. Outstanding liabilities towards Credit Purchases (Creditors).
4. Provision for Expenses.
5. Provision for Dividend/Tax
6. Income Received in Advance
7. Other Liabilities payable within one year.

Components of Assets

1. Fixed Assets. (FA)= Assets in the form of land & building, Plant & machinery, furniture, vehicles etc.
2. Non-Current Assets. (NCA) Asset's receivable after one year.

   1 +2 = Long Term Uses
3. Current Assets (CA)=Assets Receivable within one year

   3- Short Term Uses

PREPARATION OF FINANCIAL STATEMENT

Components of Fixed Assets

1. Land & Building

2. Plant & machinery
3. Furniture & Fixtures
4. Vehicles
5. Electrical equipment's
6. Computers & Electronic Equipment's.
7. Capital Work in Progress
8. Other Fixed Assets.

Components of Non-Current Assets: Investments. Earnest Money, Security Deposit.

Intangible Asset: An asset which appears in the balance sheet but may not reflect a real asset.

Examples: Loss, Drawings, Goodwill, Patents, Deferred Revenue Expenditure, Preliminary expenses not written off.

Components of Current Assets

1. Cash on Hand
2. Balance in Bank a/cs
3. Raw materials
4. Work in Process
5. Finished Goods/Stock
6. Debtors/Receivables
7. Advances paid.
8. Prepaid Expenses
9. Accrued Income
10. Other Current Assets

Classification of uses

Use of funds has two major groups.

Long Term Uses (LTU)= a) Fixed Assets. (FA) + b) Non-Current Assets. (NCA)

Short Term Uses (STU) = Current Assets (C A)

Long Term Sources should be more than Long Term uses. Then it is called Long Term Surplus.

Form and Presentation of a Balance Sheet

Two objectives are dominant in presenting information in a balance sheet. One is clarity and readability; the other is disclosure of significant facts within the framework of the basic assumptions of accounting. Balance sheet classification, terminology and the general form of presentation should be studied with these objectives in mind.

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Conventions of Preparing the Balance Sheet:

There are two conventions of preparing the balance sheet, the American and the English. According to the American convention, assets are shown on the left-hand side and the liabilities and the owners' equity on the right-hand side. Under the English convention just the opposite is followed i.e., Assets are shown on the right-hand side and the liabilities and owners' equity are shown on the left-hand side. In the illustration 'a', the American convention has been followed.

There are two forms of presenting the balance sheet

a. Horizontal format: When the liabilities and owners' equity are listed on the left-hand side and assets on the right-hand side, we get the account form of balance sheet.

b. Vertical Format: An alternative practice is the report form of balance sheet where the liabilities and owners' equity are listed at the top of the page and the assets are listed below them.

FORMATS OF BALANCE SHEET

a. Horizontal format

Liabilities			Assets		
	31-3-2009	31-3-2010		31-3-2009	31-3-2010
Share Capital	700,000	800,000	Land & Building	450,000	480,000
General Reserve	0	40,000	Plant & Machinery	300,000	440,000
P&LA/c	120,000	150,000	Furniture	100,000	180,000
15% Debentures	200,000	300,000	Bills Receivables	60,000	50,000
Mortgage Loan	250,000	200,000	Stock in trade	200,000	218,000
Creditors	128,000	160,000	Sundry Debtors	170,000	222,000
Bills payables	102,000	168,000	Cash at Bank	220,000	228,000
Total	1,500,000	1,818,000	Total 1,500,000	1,818,000	

b. Vertical Format

	Liabilities	Actual	Actual
	A son	3/31/2016	3/31/2017
	Sources of Funds		
1	Share Capital	7.25	7.25

	Reserves & Surplus	0.00	1.43
	Profit & Loss Account	3.35	0.50
	Sub Total	10.60	9.18
2	Term Liabilities		
	Unsecured Loans	2.15	2.50
	TERM LOAN	1.70	1.51
	Total Term Liabilities	3.85	4.01
3	Current Liabilities		
	Cash Credit	4.18	4.13
	Creditors	10.81	6.05
	Provisions for Taxation	0.00	0.00
	Provision for expenses	1.19	0.52
	Total Current Liabilities	16.18	10.70
4	Total Liabilities	30.63	23.89
	Assets	3/31/2016	3/31/2017
	Fixed Assets		
	Gross Block	15.55	15.92
	Less Accumulated Depreciation	2.05	3.77
	Net block as per schedule	13.50	12.15
2	Current Assets		
	Inventory	0.35	0.35
	Debtors	10.05	8.36
	Cash and Bank balance	3.57	1.38
	Current investments	1.40	1.65
	Other Current Assets	0.76	0.00
	Total Current Assets	16.13	11.74
3	Long Term Investments	1.00	0.00
4	Total Assets	30.63	23.89

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The following is the typical summarized balance sheet of a company:

Balance Sheet of XYZ Co	Rs. Crores	
	March'13	March'12
	12 months	12 months
Sources Of Funds		
Total Share Capital	289.37	289.37

Equity Share Capital	289.37	289.37
Share Application Money	0	0
Preference Share Capital	0	0
Reserves	7,612.58	5,751.70
Revaluation Reserves	0	0
Net worth	7,901.95	6,041.07
Secured Loans	0	0
Unsecured Loans	71.27	97.48
Total Debt	71.27	97.48
Total Liabilities	7,973.22	6,138.55
Application Of Funds		
Gross Block	3,828.85	3,425.94
Less: Accumulated Depreciation	2,024.42	1,914.33
Net Block	1,804.43	1,511.61
Capital Work in Progress	293.55	343.15
Investments	6,430.48	4,882.81
Inventories	636.28	678.53
Sundry Debtors	0	423.2
Cash and Bank Balance	558.86	446.49
Total Current Assets	1,195.14	1,548.22
Loans and Advances	1,987.44	1,744.82
Fixed Deposits	0	1,208.36
Total CA, Loans & Advances	3,182.58	4,501.40
D offered Credit	0	0
Current Liabilities	668.22	2,925.53

Provisions	1,742.47	2,174.89
Total CL & Provisions	2,410.69	5,100.42
Net Current Assets	771.89	-599.02
Miscellaneous Expenses	0	0
Total Assets	9,300.35	6,138.55
Contingent Liabilities	1,252.99	1,445.67
Book Value (Rs)	273.08	208.77

Notes on the Accounts:
Notes on the Accounts are stated in the final accounts with the help of Schedules referred to in the financial statements and they form an integral part of the balance sheet.

From the above balance sheet, it would have been found that previous year's figures are also given. As per the company's act, 1956 it is mandatory for the companies to give figures for the previous year also. The schedules attached to the balance sheet give details of the respective items.

Listing of Items on the Balance Sheet
Assets in balance sheet are generally listed in two ways -

a. In the order of liquidity or according to time i.e. In the order of the degree of ease with which they can be converted into cash or
b. In the order of permanence or according to purpose i.e., in the order of the desire to keep them in use. Some assets cannot be easily classified.

For e.g. Investments can be easily sold but the desire may be to keep them. Investments may therefore be both liquid and semi-permanent that is why they are shown as a separate item in the balance sheet. Liabilities can also be grouped in two ways; either in the order of urgency of payment or in the reverse order. The various assets and liabilities grouped in the two orders will appear as follows:

ORDER OF LIQUIDITY

Order of Permanence

Liabilities	Assets
	Cash
	Bank
Bank Overdraft	Marketable Securities
Bills Payable	Debtors
Creditors	Inventory
Outstanding Expenses	Bills Receivable
Income Received in Advance	Prepaid Expenses

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Provision for Income-Tax	Investments
Mortgage Loan	Furniture and Fixtures
Debenturest	Plant and Machinery
Owners' Equity	Land and Buildings
	Patents
	Trade Marks
	Goodwill
	Preliminary Expenses

Owners' Equity	Goodwill
Debentures	Trade Marks
Mortgage Loan	Patents
Provision For Income-Tax	Land And Buildings

Income Received In Advance	Plant And Machinery
Outstanding Expenses	Furniture And Fixtures
Creditors	Investments
Bills Payable	Prepaid Expenses
	Inventory
	Debtors
	Marketable Securities
	Bank
	Cash
	Bills Receivables

CLASSIFICATION OF ITEMS IN THE BALANCE SHEET

Although each individual asset or liability can be listed separately on the balance sheet, it is more practicable and more informative to summarize and group related items into categories called as account classifications. The classifications or group headings will vary considerably depending on the size of the business, the form of ownership, the nature of its operations and the users of the financial statements. For e.g. While listing assets, the

order of liquidity is generally used by sole traders, partnership firms and banks, whereas joint stock companies by law follow the order of permanence. As a generalization which is subject to many exceptions, the following classification of balance sheet items is suggested as representative:

Assets: Current assets, Investments, Fixed assets, Intangible assets and other assets.

Liabilities: Current liabilities and long-term liabilities.

Owners' Equity: Capital and Retained earnings.

Current Assets:
Current assets are those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business enterprise or within one year, whichever is longer. By operating cycle, we mean the average period of time between the purchase of goods or raw materials and the realization of cash from the sale of goods or the sale of products produced with the help of raw materials. Current assets generally consist of cash, marketable securities, bills receivables, debtors, inventory and prepaid expenses.

Cash:
Cash consists of funds that are readily available for disbursement. It includes cash kept in the cash chest of the enterprise as also cash deposited on call or current accounts with banks.

Marketable Securities:
These consist of investments that are both readily marketable and are expected to be converted into cash within a year. These investments are made with a view to earn some return on cash that otherwise would be temporarily idle.

Accounts Receivable:
Accounts receivable consist of amounts owed to the enterprise by its consumers. This represents amounts usually arising out of normal commercial transactions. These amounts are listed in the balance sheet at the amount due less a provision for portion that may not be collected. This provision is called as provision for doubtful debts. Amounts due to the enterprise by someone other than a consumer would appear under the heading 'other receivables' rather than 'accounts receivables'.

If the amounts due are evidenced by written promises to pay, they are listed as bills receivables. Accounts receivables are expected to be realized in cash.

Inventory:
Inventory consists of i) goods that are held in stock for sale in the ordinary course of business, ii) work-in-progress that are to be currently consumed in the production of goods or services to be available for sale. Inventory is expected to be sold either for cash or on credit to customers to be converted into cash. It may be noted in this connection that

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inventory relates to goods that will be sold in the ordinary course of business. A van offered for sale by a van dealer is inventory. A van used by the dealer to make service calls is not inventory but an item of equipment which is a fixed asset.

Prepaid Expenses:

These items represent expenses which are usually paid in advance such as rent, taxes, subscriptions and insurance. For e.g. If rent for three months for the building is paid in advance, then the business acquires a right to occupy the building for three months. This right to occupy is an asset. Since this right will expire within a fairly short period of time it is a current asset.

Long Term Investments:

The distinction between a marketable security shown under current asset and as an investment is entirely based on time factor. Those investments like investments in shares, debentures, bonds etc. That will be retained for more than one year or one operating cycle will appear under this classification.

Fixed Assets:

Tangible assets used in the business that are of a permanent or relatively fixed nature are called plant assets or fixed assets. Fixed assets include furniture, equipment, machinery, building and land. Although there is no standard criterion as to the minimum length of life necessary for classification as fixed assets, they must be capable of repeated use and are ordinarily expected to last more than a year. However, the asset need not actually be used continuously or even frequently. Items of spare equipment's held for use in the event of breakdown of regular equipment or for use only during peak periods of activity are also included in fixed assets.

With the passage of time, all fixed assets with the exception of land lose their capacity to render services. Accordingly, the cost of such assets should be transferred to the related expense amounts in a systematic manner during their expected useful life. This periodic cost expiration is called depreciation. While showing the fixed assets in the balance sheet the accumulated depreciation as on the date of balance sheet, is deducted from the respective assets.

Intangible Assets:

While tangible assets are concrete items which have physical existence such as buildings, machinery etc., intangible assets are those which have no physical existence. They cannot be touched and felt. They derive their value from the right conferred upon their owner by possession. Examples are: goodwill, patents, copyrights and trademarks.

Fictitious Assets:

These items are not assets. Yet they appear in the asset side simply because of a debit balance in a particular account not yet written off- e.g., Debit balance in current account of partners, profit and loss account, etc.

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CLASSIFICATION OF LIABILITIES

Current Liabilities:

When the liabilities of a business enterprise are due within an accounting period or the operating cycle of the business, they are classified as current liabilities. Most of the current liabilities are incurred in the acquisition of materials or services forming part of the current assets. These liabilities are expected to be satisfied either by the use of current assets or by the creation of other current liabilities. The one-year time interval or current operating cycle criterion applies to classifying current liabilities also. Current liabilities generally consist of bills payable, creditors, outstanding expenses, income received in advance, provision for income-tax etc.

Accounts Payable:

These amounts represent the claims of suppliers related to goods supplied or services rendered by them to the business enterprise for which they have not yet been paid. Usually, these claims are unsecured and are not evidenced by any formal written acceptance or promise to pay. When the enterprise gives a written promise to pay money to a creditor for the purchase of goods or services used in the business or the money borrowed, then the written promise is called as bills payable or notes payable. Amounts due to financial institutions which are suppliers of funds, rather than of goods or services are termed as short-term loans or by some other name that describes the nature of the debt instrument, rather than accounts payable.

Outstanding Expenses:

These are expenses or obligations incurred in the previous accounting period but the payment for which will be made in the next accounting period. A typical example is wages or rent for the last month of the accounting period remaining unpaid. It is usually paid in the first month of the next accounting period and hence it is an outstanding expense.

Income Received in Advance:

These amounts relate to the next accounting period but received in the previous accounting period. This item of liability is frequently found in the balance sheet of enterprises dealing in the publication of newspapers and magazines.

Pro vision for Taxes:

This is the amount owed by the business enterprise to the government for taxes. It is shown separately from other current liabilities both because of the size and because the amount owed may not be known exactly as on the date of balance sheet. The only thing known is the existence of liability and not the amount.

Long Term Liabilities:

All liabilities which do not become due for payment in one year and which do not require current assets for their payment are classified as long-term liabilities or fixed liabilities. Long term liabilities may be classified as secured loans or unsecured loans. When the long-term loans are obtained against the security of fixed assets owned by the enterprise, they

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are called as secured or mortgaged loans. When any asset is not attached to these loans they are called as unsecured loans. Usually, long-term liabilities include debentures and bonds, borrowings from financial institutions and banks, public debts, etc. Interest accrued on a particular secured long-term loan, should be shown under the appropriate sub-heading.

Contingent Liabilities:

Contingent liabilities are those liabilities which may or may not result in liability. They become liabilities only on the happening of a certain event. Until then both the amount and the liability are uncertain. If the event happens there is a liability; otherwise, there is no liability at all. A very good example for contingent liability is a legal suit pending against the business enterprise for compensation. If the case is decided against the enterprise the liability arises and in the case of favorable decision there is no liability at all. Contingent liabilities are not taken into account for the purpose of totaling of balance sheet.

Capital Or Owners' Equity:

As mentioned earlier, owners' equity is the residual interest in the assets of the enterprise. Therefore, the owners' equity section of the balance sheet shows the amount the owners have invested in the entity. However, the terminology' owners' equity, varies with different forms of organizations depending upon whether the enterprise is a joint stock company or sole proprietorship / partnership concern.

Sole Proprietorship/Partnership Concern:

The ownership equity in a sole Proprietorship or partnership is usually reported in the balance sheet as a single amount for each owner rather than distinction between the owner's initial investment and the accumulated earnings retained in the business. For e.g., in a sole proprietor's balance sheet for the year 2011, the capital account of the owner may appear as follows:

Owner's capital as on 1-4-2016	2,50,000
Add: 2015-16-profit	30,000 2,80,000
Less: drawings	15,000
Owner's capital as on 31 -3-2017	2,65,000

Joint Stock Companies:

In the case of joint stock companies, according to the legal requirements, owners' equity is divided into two main categories. The first category called share capital or contributed capital is the amount the owners have invested directly in the business. The second category of owners' equity is called retained earnings.

PREPARATION OF FINANCIAL STATEMENT

Share capital is the capital stock pre-determined by the company by the time of registration. It may consist of ordinary share capital or preference share capital or both. The capital stock

is divided into units called as shares and that is why the capital is called as share capital. The entire predetermined share capital called as authorized capital need not be raised at a time. That portion of authorized capital which has been issued for subscription as on a date is referred to as issued capital.

"Retained earnings" is the difference between the total earning to date and the number of dividends paid out to the shareholders to date. That is, the difference represents that part of the total earnings that have been retained for use in the business. It may be noted that the amount of retained earnings on a given date is the accumulated amount that has been retained in the business from the beginning of the company's existence up to that date. The owners' equity increases through retained earnings and decreases when retained earnings are paid out in the form of dividends.

CHECK YOUR PROGRESS

1. **What are the different types of Errors?**
2. **What is a Suspense Account?**
3. **What is a Bank Reconciliation Statement?**
4. **What are the components of Intangible Assets?**
5. **What are the components of Non-Current Assets?**

2.11 PROFIT AND LOSS APPROPRIATION ACCOUNT

This part of Profit and Loss Account, which is mainly applicable to company form of organization, discloses the manner in which the PAT earned by the organization is appropriated. The amount of profit not appropriated or retained is transferred to Reserves and Surplus in the Balance Sheet. Following is the specimen of Profit and Loss Appropriation Account.

Profit & Loss Appropriation Account for the year ended on 31 st March 2017			
Particulars	Amount	Particulars	Amount
By Opening Balance			
Dividend Paid		Profit After Tax b/fd	
Transferred to Reserves		Amount withdrawn from Reserves	
Balance transferred to Balance Sheet			
	Total		Total

Statement of Retained Earnings

The term retained earnings means the accumulated excess of earnings over losses and dividends. The statement of retained earnings is generally included with almost any set of financial statements although it is not considered to be one of the major financial statements. A typical statement of retained earnings starts with the opening balance of

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retained earnings, the net income for the period as an addition, the dividends as a deduction, and ends with the closing balance of retained earnings. The statement may be prepared and shown on a separate sheet or included at the bottom of the income statement. The balance shown by the income statement is transferred to the balance sheet through the statement of retained earnings after making necessary appropriations. This statement thus links the income statement to the retained earning item on the balance sheet. This statement can be prepared in 'f shape also when it is called as profit and loss appropriation account. Illustration' f' gives the statement of retained earnings of ltd.

Example-Vishal Pvt. Ltd.

For The Year Ended 31st March 2012

Retained Earnings at The Beginning Of The Year		700
Add: Net Income		5,625
		6,325
Less: Dividends	5,600	
		6,225
General Reserve	625	
Retained Earnings at The End of The Year	100	

2.12 GUIDELINES FOR PREPARATION OF FINANCIAL STATEMENTS

NEW SCHEDULE BISECTION 129

The Schedule III has been revised by Ministry of Company Affairs (MCA) and is applicable for all Balance Sheet made after 31st March, 2011. The Format has done away with earlier two options of format of Balance Sheet, now only Vertical format has been permitted. This schedule explains the format and contents of Balance Sheet and Profit and Loss Account.

GENERAL INSTRUCTIONS FOR PREPARATION OF BALANCE SHEET

The disclosure requirements specified in Part I and Part II of this Schedule are in addition to the disclosure requirements specified in the Accounting Standards.

Each item on the face of the Balance Sheet and Statement of Profit and Loss shall be cross referenced to any related information in the notes to accounts.

Rounding off

Depending upon the turnover of the Company, the figures appearing in the Financial Statements may be rounded as below:

Turnover Rounding off

a. Less than one hundred crore rupees: To the nearest hundreds, thousands, lakhs or millions, or decimals thereof

b. One hundred crore rupees or more: To the nearest lakhs or millions or crores, or decimals thereof.

Once a unit of measurement is used, it should be used uniformly in the Financial Statements.

The corresponding amounts (comparatives) for the immediately preceding reporting period for all items shown in the Financial Statements

PART I — FORM OF BALANCE SHEET

Name of the company

Balance Sheet as at

(Rupees in …….)

PART I — FORM OF BALANCE SHEET

1. **Equity and liabilities**

Shareholders' Funds

a. Share capital

b. Reserves and surplus

c. Money received against share warrants

2. **Share Application money pending allotment**

3. **Non-current liabilities**

a. Long-term borrowings

b. Deferred tax liabilities (Net)

c. Other long-term liabilities

d. Long-term provisions

4. **Current liabilities**

a. Short term borrowings

b. Trade payables

c. Other current liabilities

d. Short-term provisions

TOTAL

PART I — FORM OF BALANCE SHEET

1. **ASSETS**

Non-current assets

a. Fixed Assets

- Tangible assets
- Intangible Assets

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- Capital work-in-progress
- Intangible assets under development
- Non-current Investments

b. Long-term Loan and Advances

c. Deferred tax assets (net)

d. Other Non-current assets

2. Current assets

a. Current investments

b. Inventories

c. Trade receivables

d. Cash and cash equivalents

e. Short-term loans and advances

f. Other current assets

Criteria for Current Assets

An asset shall be classified as current when it satisfies any of the following criteria:

a. It is expected to be realized in, or is intended for sale or consumption in, the company's normal operating cycle;

b. It is held primarily for the purpose of being traded;

c. It is expected to be realized within twelve months after the reporting date; or

d. It is cash or cash equivalent unless it is restricted from being exchanged or used to settle a liability for at least twelve months after the reporting date.

All other assets shall be classified as non-current.

Criteria for Current Liability

A liability shall be classified as current when it satisfies any of the following criteria:

a. It is expected to be settled in the company's normal operating cycle;

b. It is held primarily for the purpose of being traded;

c. It is due to be settled within twelve months after the reporting date; or

d. The company does not have an unconditional right to defer settlement of the liability for at least twelve months after the reporting date.

All other liabilities shall be classified as non-current.

Operating cycle

An operating cycle is the time between the acquisition of assets for processing and their realization in cash or cash equivalents. Where the normal operating cycle cannot be identified, it is assumed to have duration of 12 months.

Trade Receivable and Payable

A receivable shall be classified as a 'trade receivable' if it is in respect of the amount due on account of goods sold or services rendered in the normal course of business.

A payable shall be classified as a 'trade payable' if it is in respect of the amount due on account of goods purchased or services received in the normal course of business.

Mandatory Disclosures

1. **Share Capital for each class of share capital (different classes of preference shares to be treated separately):**
   a. The number and number of shares authorized;
   b. The number of shares issued, subscribed and fully paid, and subscribed but not fully paid;
   c. Par value per share;
   d. A reconciliation of the number of shares outstanding at the beginning and at the end of the period;
   e. The rights, preferences and restrictions attaching to that class including restrictions on the distribution of dividends and the repayment of capital;
   f. Shares in the company held by its holding company or its ultimate holding company or by its subsidiaries or associates;
   g. Shares in the company held by any shareholder holding more than 5 percent shares;
   h. Shares reserved for issue under options and contracts/commitments for the sale of shares/disinvestment, including the terms and amounts;
   i. Separate particulars for a period of five years following the year in which the shares have been allotted/bought back, in respect of:

      Aggregate number and class of shares allotted as fully paid up pursuant to contract(s) without payment being received in cash.

      Aggregate number and class of shares allotted as fully paid up by way of bonus shares (Specify the source from which bonus shares are issued).

      Aggregate number and class of shares bought back.
   j. Terms of any security issued along with the earliest date of conversion in descending order starting from the farthest such date.
2. **Reserves and Surplus**
   a. **Reserves and Surplus shall be classified as:**
      - Capital Reserves;
      - Capital Redemption Reserves;
      - Securities Premium Reserve;
      - Debenture Redemption Reserve;

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- Revaluation Reserve;
- Other Reserves - (specify the nature of each reserve and the amount in respect thereof);
- Surplus i.e., balance in statement of Profit & Loss disclosing allocations and appropriations such as dividend paid, bonus shares and transfer to/ from reserves.
- Surplus i.e., balance in Statement of Profit & Loss disclosing allocations and appropriations such as dividend, bonus shares and transfer to/from reserves etc.
- (Additions and deductions since last balance sheet to be shown under each of the specified heads)

b. A reserve specifically represented by earmarked investments shall be termed as a 'fund'.

c. Debit balance of Statement of Profit and Loss shall be shown as a negative figure under the head 'Surplus' Similarly, the balance of 'Reserves and Surplus', after adjusting negative balance of surplus, if any, shall be shown under the head 'Reserves and Surplus' even if the resulting figure is in the negative.

3. Long-term Borrowings

a. Long-term borrowings shall be classified as:

- Bonds/debentures.
- Term loans: • from banks. And • from other parties.
- Deferred payment liabilities.
- Deposits.
- Loans and advances from related parties.
- Long-term maturities of finance lease obligations
- Other loans and advances (specify nature).

b. Borrowings shall further be sub-classified as secured and unsecured. Nature of security shall be specified separately in each case.

c. Where loans have been guaranteed by directors or others, a mention thereof shall be made and also the aggregate amount of such loans under each head.

d. Bonds/debentures (along with the rate of interest and particulars of redemption or conversion, as the case may be) stated in descending order of maturity or conversion, starting from farthest redemption or conversion date, as the case may be. Where bonds/debentures are redeemable by installments, the date of maturity for this purpose must be reckoned as the date on which the first installment becomes due.

e. Particulars of any redeemed bonds/debentures which the company has power to reissue.

f. Terms of repayment of term loans and other loans.

g. Period and amount of default in repayment of dues, providing break-up of principal and interest shall be specified separately in each case.

4. Other Long-term Liabilities

Other Long-term Liabilities shall be classified as: a. Trade payables b. Others

5. Long-term provisions

The amounts shall be classified as:

a. Provision for employee benefits, b. Others (specify nature).

6. Short-term borrowings

a. Short-term borrowings shall be classified as:

- Loans repayable on demand • from banks and • from other parties.
- Loans and advances from subsidiaries/holding company/associates/business ventures.
- Deposits.
- Other loans and advances (specify nature).

b. Borrowings shall further be sub-classified as secured and unsecured. Nature of security shall be specified separately in each case.

c. Where loans have been guaranteed by directors or others, a mention thereof shall be made and also the aggregate amount of loans under each head.

d. Period and amount of default in repayment of dues, providing break-up of principal and interest shall be specified separately in each case.

7. Other current liabilities

The amounts shall be classified as:

a. Current maturities of long-term debt.

b. Current maturities of finance lease obligations.

c. Income received in Advance.

d. Interest accrued but not due on borrowings.

e. Interest accrued and due on borrowings.

f. Unpaid Dividends.

g. Application money received for allotment of securities and due for refund and interest accrued thereon. Share application money includes advances towards allotment of share capital.

h. Unpaid matured deposits and interest accrued thereon.

i. Unpaid matured debentures and interest accrued thereon.

j. Other payables (specify nature).

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8. Short-term provisions

The amounts shall be classified as: a. Provision for employee benefits, b. Others (specify nature).

9. Tangible assets

a. Classification shall be given as:
   - Land.
   - Buildings.
   - Plant and Equipment.
   - Furniture and Fixtures.
   - Vehicles.
   - Office equipment.
   - Others (specify nature).

b. Assets under lease shall be separately specified under each class of asset

c. A reconciliation of the gross and net carrying amounts of each class of assets at the beginning and end of the reporting period showing additions, disposals, acquisitions and other movements and the related depreciation and impairment losses/reversals shall be disclosed separately.

d. Where sums have been written off on a reduction of capital or revaluation of assets or where sums have been added on revaluation of assets, every balance sheet subsequent to date of such write-off, or addition shall show the reduced or increased figures as applicable and shall by way of a note also show the amount of the reduction or increase as applicable together with the date therefore for the first five years subsequent to the date of such reduction or increase.

10. Intangible assets

a. Classification shall be given as:
   - Goodwill.
   - Brands /trademarks.
   - Computer software.
   - Mastheads and publishing titles.
   - Mining rights.
   - Copyrights, and patents and other intellectual property rights, services and operating rights.
   - Recipes, formulae, models, designs and prototypes.
   - Licenses and franchise.
   - Others (specify nature).

11. Non-current investments

a. Non-current investments shall be classified as trade investments and other investments and further classified as:

- Investment property;
- Investments in Equity Instruments;
- Investments in Preference shares;
- Investments in Government or trust securities;
- Investments in units, debentures or bonds;
- Investments in Mutual Funds;
- Investments in partnership firm;
- Other non-current investments (specify nature)

12. Long-term loans and advances

a. Long-term loans and advances shall be classified as:

- Capital Advances;
- Security Deposits;
- Loans and Advances to related parties (giving details thereof);
- Other Loans and Advances (specify nature).

b. The above shall also be separately sub-classified as:

- To the extent secured, considered good;
- Others, considered good;
- Doubtful.

c. Allowance for bad and doubtful loans and advances shall be disclosed under the relevant heads separately.

d. Loans and advances due by directors or other officers of the company or any of them either severally or jointly with any other persons or amounts due by firms or private companies respectively in which any director is a partner or a director or a member should be separately stated.

13. Other non-current assets

Other non-current assets shall be classified as:

- Long-term Trade Receivables (including trade receivables on deferred credit terms);
- Others (specify nature)
- Long-term Trade Receivables shall be sub-classified as:
- (a) secured, considered good; (b) unsecured, considered good; (c) Doubtful. Allowance for bad and doubtful debts shall be disclosed under the relevant heads separately.

NOTES 

Debts due by directors or other officers of the company or any of them either severally or jointly with any other person debts due by firms or private companies respectively in which any director is a partner or a director or a member should be separately stated.

LIMITATIONS OF FINANCIAL STATEMENTS

1. Financial statements are available only after the specific period of time is over e.g., the Balance Sheet as on 31st March, 1990 is available only after 31st March, 1990 is over. The various legal provisions also provide for sufficient time lag for the preparation of financial statements. Thus, the financial statements give the information about the historic facts which may not be sufficient from decision making point of view for the management.
2. Financial statements are necessarily interim reports and cannot be final ones. E.g., to understand the correct profitability and to understand the correct position of various assets and liabilities, it will be necessary to stop the business operations and dispose of all the assets and liquidate all the liabilities which may not be practicable and feasible. In order to prepare the financial statements for a specific period, it may be necessary to cut off various transactions involving costs and incomes at the date of closing the accounts which may involve the personal judgements. Various policies and principles are required to be formulated and followed consistently for such cutting off of incomes and costs.
3. As 'going concern principle' is followed while preparing the Balance Sheet, the various assets and liabilities are shown at historical prices and do not necessarily represent the current market prices or the liquidation prices. This may affect the profitability statement as well in the form of incorrect provision for depreciation. This problem may be more critical during the periods of extreme inflation or depression. As such, any conclusions drawn on the basis of such financial statements may be misleading ones.
4. Financial statements consider only those transactions which can be expressed in monetary terms. All other transactions or factors which cannot be expressed in terms of money are ignored by the financial statements. E.g., Assuming that the business of a company is such that it is likely to be injurious to the health of local community. As such, there is a strong opposition from the local community for the company's carrying on of business at that location. This opposition is something which cannot be expressed in terms of money and hence finds no place in the financial statements though it is affecting the business operations of the company to a very great extent.
5. The financial statements prepared may be useful for the use of normal users under normal circumstances. If a user wants to use the financial statements for some special purposes, the necessary information or details may not be available from the financial statements. E.g. If a user, on the basis of financial statements available wants to value the equity shares of the company with the methods considering earnings capacity of the company, the required details may not be available from the financial statements.

2.13 PREPARATION OF FINANCIAL STATEMENTS

Profit and loss statement

To Electricity bill	2,000	To Gross Profit b/d	85,000
To Interest	2,000		
To Rent	5,000		
To Salary	6,000		
To Telephone bills	1,000		
To Net Profit	69,000		
Total 85,000		Total	85,000

Balance Sheet; on DD-MM -YYYY

Sr. No.	Title of the Account	Credit Balance
1	Capital Account	90,000
2	Creditor Marshal's Account	45,000
3	Creditor Rahul's Account	30,000
4	Creditor Ratan's Account	10,000
5	Creditor Shankar's Account	90,000
6	Loan Account	197,000
7	Profit and Loss account	69,000
	Total	531,000

Assets

Sr. No.	Title of the Account	Debit Balance
1	Bank Account	118,750
2	Cash on Hand Account	79,000
3	Debtor Subhash's Account	46,000
4	Debtor Suresh's Account	75,250
5	Stock on Hand Account	172,000
6	Furniture Account	40,000
	Total	531,000

NOTES

EXAMPLE: Prepare Trading A/c, Profit & Loss account and Balance sheet on the basis of the following information.

Trial Balance of Rahul Pharmaceutical as on 31 -3-17.

S.N	Particulars	Debit	Credit
1	Share Capital		8.00
2	Drawings	1.00	
3	Car loan from banks		2.00
4	Borrowing from friends		21.00
5	Cash Credit from Bank		2.00
6	Creditors		5.00
7	Fixed Assets: Gross block	10.00	
8	Provision for Depreciation		3.00
9	Debtors	17.00	
10	Cash and Bank balance	0.10	
11	Investments	1.00	
12	Sales Net		146.00
13	Interest on investments		0.10
14	Opening stock	9.00	
15	Purchases	138.00	
16	Selling & Administrative Expenses	11.00	
		187.10	187.10

Adjustments to be made

1	Closing stock	16.00
2	Depreciation to be made for the year 2016-17	10% WDV
3	Provision for Interest on Loans & Cash credit	10%
4	Provision of income tax on Profit Before Tax	30%
5	Prepaid Selling & Administration Expenses	0.50
6	Provision for outstanding expenses to be made	1.00

PREPARATION OF FINANCIAL STATEMENT

Solution:

In the Books of Ms. Rahul Pharmaceutical

Dr. Trading A/c as on 31st March, 2017			Cr.
Particulars	Amount	Particulars	Amount
To Opening Stock	138.00	By Sales	146.00
To Purchases	15.00	By Closing Stock	16.00
To Gross Profit transferred to P&L A/c	9.00		
Total Rs.	162.00	Total Rs.	162.00

Dr. Profit & Loss A/c as on 31st March, 2017 Cr.

Particulars	Amount	Particulars	Amount
To Selling & Administration Expenses (11 +1 -0.5)	11.50	By Gross Profit b/d	15.00
To Interest on Loans & Cash credit 10% on (2+21+2=25)	2.50	By interest Received	0.10
To Depreciation 10% on (10-3=7)	0.70		
To Income Tax 30%ofPBT0.40	0.12		
By Net Profit transferred to B/S	0.28		
Total Rs.	15.10	Total Rs.	15.10

Balance Sheet as at 31st March, 2017

Liabilities	Amount	Amount	Assets	Amount	Amount
Capital	8		Fixed Assets	10.00	
(-) Drawings	-1		Less: Depreciation	3.70	6.30
(+) Net Profit	+0.28	7.28	Prepaid Expenses		0.50
Car loan from banks		2.00	Sundry Debtors		17.00
Borrowing from friends		21.00	Investments		1.00
Cash Credit from Bank		2.00	Closing Stock		16.00
Creditors		5.00	Cash in Hand		0.10
Provision for Interest		2.50			
Provision for outstanding expenses		1.00			

NOTES 

Provision for Income Tax		0.12			
Total Rs.		40.90	Total Rs.		40.90

EXAMPLE: The following Trial Balance was extracted from the books of Vishal as on 31.3.2017. Prepare Trading and Profit & Loss Account for the year ended 31st March, 2017 and Balance Sheet as on that date.

Trial balance

Head of Accounts	Debit Amount Rs.	Credit Amount Rs.
Capital Account		100000
Machinery	78000	
Furniture	2000	
Sales		127000
Purchases	60000	
Returns	1000	750
Opening Stock	30000	
Discount	425	800
Debtors	45000	
Creditors		25000
Salaries	7550	
Wages	10000	
Carriage Outward	1200	
Provision for Bad Debts		525
Rent	10000	
Advertisement	2000	
Cash	6900	
Total Rs.	254075	254075

Additional information:

a. Closing Stock was valued at Rs.34220

b. Depreciate machinery at 10% p.a.

c. Provision for bad debts is to be kept at of 5%.

d. Vishal has taken goods worth Rs. 5000 for personal use and distributed goods worth Rs. 1000 as free samples.

Solution:

Dr. Trading A/cason31stMarch, 2017 Cr.

Particulars	Amount Rs.	Particulars	Amount Rs.
To Opening Stock	30000	By Sales 127000	
To Purchases 60000		Less: Sales Return 1000	126000
Less: Purchase Return 750	59250	By Goods withdrawn by Proprietor for Personal Use	5000
		Goods Distributed as Free Samples	1000
To Wages	10000	By Closing Stock	34220
To Gross Profit transferred to P&LA/c	66970		
Total Rs.	166220	Total Rs.	166220
Dr. Profit & Loss A/c as on 31st March, 2017			Cr.
Particulars	Amount Rs.	Particulars	Amount Rs.
To Discount Allowed	425	By Gross Profit b/d	66970
To Salaries	7550	By Discount Received	800
To Rent	10000		
To Carriage Outward	1200		
To Advertisement	2000		
To Interest on Capital	10000		
To Depreciation on Machinery	7800		
To Goods Distributed as Free Samples	1000		
To New RDD @5%	2250		
(-) Old RDD Provision 525	1725		
By Net Profit transferred to B/S	26070		
Total Rs.	67700	Total Rs.	67700

NOTES

Balance Sheet as at 31st March, 2017

Liabilities	Amount Rs.	Amount Rs.	Assets	Amount Rs.	Amount Rs.
Capital	100000		Machinery	78000	
(+) Interest on Capital	+10000		Less: Depreciation	7800	70200
(-) Goods Withdrawn	-5000		Furniture		2000
(+) Net Profit	+26070	131070	Sundry Debtors	45000	
			Less: RDD@5%	2250	42750
Sundry Creditors		25000	Closing Stock		34220
			Cash in Hand		6900
Total Rs.		156070	Total Rs.		156070

2.14 CHAPTER SUMMARY

Depreciation can be defined as a permanent, continuous and gradual reduction in the book value of a fixed asset. The causes of depreciation are 1) Use factor: 2) Time factor: 3) Obsolescence:

Methods of depreciation are 1. Straight line method, 2. Diminishing balance method and 3. Annuity method

Straight Line Method (SLM) Of Depreciation: This method which is also known as 'fixed installment system' provides for equal amount of depreciation every year. Under this method, the cost of acquisition plus the installation charges, minus the scrap value, is spread over the estimated life of the asset to arrive at the annual charge.

Diminishing Balance Method: The depreciation is provided at a predetermined percentage, on the balance of cost of asset after deducting the depreciation previously charged (usually termed as written down value).

Periodically, usually at the end of the accounting period, all revenue and expense account balances are transferred to an account called income summary or profit and loss account and are then said to be closed.

Because of the adopting of accrual accounting, after the preparation of trial balance,

adjustments relating to the accounting period have to be made in order to make the financial statements complete. These adjustments are needed for transactions which have not been recorded but which affect the financial position and operating results of the business.

Errors occur when some transactions are incorrectly entered in the account books. Identification and rectification of the errors is necessary to ensure the correctness of final accounts.

Error of Omission: This error occurs when a transaction is not recorded in the Journal.

Error of Commission: These errors are caused due to wrong recording of transactions, wrong totaling of subsidiary books or Ledger A/cs, Wrong posting and wrong carry forward.

Errors of Principles. These errors are caused due to the violation of accounting principles

Compensating Errors: Two or more errors committed in such a way that the net effect of these errors of the debit and credits of A/cs is nil

Suspense Account: It is a temporary account to which the difference in the Trial Balance is transferred

A schedule showing the items of difference between the bank statement and the bank column of Cash Book is known as Bank Reconciliation Statement. The differences may be caused by either (A) Time gap in recording transactions or (B) Errors Committed in recording transactions.

A balance sheet shows the financial position of a business enterprise as of a specified moment of time. Profit and loss account consists of two elements: one element is the inflows that result from the sale of goods and services to customers which are called as revenues. The other element reports the outflows that were made in order to generate those revenues; these are called as expenses.

Manufacturing Account is a part of Profit and Loss Account that discloses the result of manufacturing operations carried out by the organization. The final result disclosed by the Manufacturing Account is the Cost of Production incurred by the organization.

Trading Account is a part of Profit and Loss Account that discloses the result of trading operations carried out by the organization. The final result disclosed by the Trading Account is the Gross Profit earned by the organization.

Profit and Loss Account is a part of Profit and Loss Account that discloses the final result of business transactions of the organization. The final result disclosed by the Profit and Loss Account is the Profit After Tax (PAT) earned by the organization.

Profit and Loss Appropriation Account is a part of Profit and Loss Account, which is mainly applicable to company form of organization, discloses the manner in which the PAT earned by the organization is appropriated i.e., how much is disbursed as dividend and how much is retained in the business.

NOTES 

2.15 KEY WORDS

Accumulated Depreciation	The total periodic depreciation charged on depreciable assets.
Bank Reconciliation Statement	A schedule showing the items of difference between the bank statement and the bank column of Cash Book.
Compensating Errors	Two or more errors committed in such a way that the net effect of these errors of the debit and credits of Accounts is nil.
Depreciable Amount	The historical cost less the estimated residual value
Depreciable Asset	Asset which is expected to be used during more than one accounting period and is held for long term use to generate income.
Diminishing Balance Method	The depreciation is provided at a predetermined percentage, on the balance of cost of asset after deducting the depreciation previously charged (usually termed as written down value.
Error of Commission	These errors are caused due to wrong recording of transactions, wrong totaling of subsidiary books or Ledger Accounts, Wrong posting and wrong carry forward.
Error of Omission	This error occurs when a transaction is not recorded in the Journal.
Errors of Principles	These errors are caused due to the violation of accounting principles
Straight Line Method	"Fixed installment system', which provides for equal amount of depreciation every year spread over the estimated life of the asset
Suspense Account	It is a temporary account to which the difference in the Trial Balance is transferred
Written Down Value	Cost less Accumulated Depreciation
Balance Sheet	Balance Sheet is the summarized statement of what the business owns i.e., assets and what the business owes i.e., liabilities.
Bills Payable	Bills Payable indicates the amount payable to the suppliers
Bills Receivable	It indicates the amount receivable from the customers
Capital	Capital indicates the amount of funds invested by the owner in the business
Creditor	A creditor is a supplier to whom the business owes money for the goods bogle it on credit

Debtor	A debtor is a customer who owes money to the business for the goods supplied on credit
Depreciation	Reduction in the value of fixed assets, which arise either due to time factor or use factor or both.
Drawings	The amount of funds or goods withdrawn by the owner of the business for his personal use.
Liabilities	All the amounts owed by the business to various providers of funds or services are collectively referred to as liabilities.

2.16 REVIEW QUESTIONS

SHORT ANSWER TYPE QUESTIONS

1. **What are the Adjustment entries?**
2. **What are the Closing entries?**
3. **What are the components of Own Funds (Equity)?**
4. **What are the components of Term Liabilities (Debt)?**
5. **What are the components of Current Liabilities?**

LONG ANSWER TYPE QUESTIONS

1. **Define Depreciation. Explain the need for Depreciation Accounting.**
2. **Explain the Methods of Depreciation**
3. **Explain the format of a Bank Reconciliation Statement**
4. **Explain the format of Profit and Loss Account.**
5. **Explain the format of Trading Account.**

2.17 MULTIPLE CHOICE QUESTIONS

1. **Methods of depreciation are _____.**
   a. 1
   b. 2
   c. 3
   d. 4
2. **A balance sheet shows the financial position of a business enterprise as of a specified moment of _____.**
   a. Time
   b. Amount
   c. System
   d. None of the above

NOTES 

3. **Profit and loss account consists of _____ elements.**
   a. 1
   b. 2
   c. 3
   d. 4
4. **Manufacturing _____ is a part of Profit and Loss.**
   a. System
   b. Account
   c. Unit
   d. None of the above
5. **Depreciation can be defined as a _____in the book value of a fixed asset.**
   a. Permanent
   b. Continuous
   c. Gradual reduction
   d. All of the above
6. **The depreciation is provided at a predetermined _____.**
   a. Amount
   b. Percentage
   c. Unit
   d. Both A and B
7. **Error of _____: This error occurs when a transaction is not recorded in the Journal.**
   a. Omission
   b. Commission
   c. Depreciation
   d. Capital
8. **Errors of_____: These errors are caused due to the violation of accounting _____.**
   a. Amounts
   b. Principles
   c. Liabilities
   d. None of the above
9. **Suspense_____: It is a temporary _____ to which the difference in the Trial Balance is transferred.**
   a. Account

b. Principles

c. Liabilities

d. Amounts

10. The _____ has been revised by Ministry of Company Affairs (MCA).

a. Schedule I

b. Schedule II

c. Schedule III

d. Schedule IV

♦♦♦♦♦

UNIT III

COST ACCOUNTING

STRUCTURE

NOTES 

3.1 LEARNING OBJECTIVE

After completing this unit, you will be able to:

- Explain the Types of costs.
- Prepare a Cost Sheet.
- Understand the Material Cost.
- Describe the meaning of Labour Cost.
- Apportion the Overhead Cost.
- Carry out Cost Control.
- Know the Formulas for various cost calculations.
- Explain the Cost, Volume and Profit Relationship.
- Understand the Economy of Scale.
- Describe Marginal Costing.
- Carry out Break Even Analysis.

3.2 INTRODUCTION

The industrial revolution in England posed a challenge to the development of accounting as a tool of industrial management. This necessitated the development of costing techniques as guides to management action. Cost accounting emphasizes the determination and the control of costs. It is concerned primarily with the cost of manufacturing processes.

Accounting can no longer be considered a mere language of business. The need for maintaining the financial chastity of business operations, ensuring the reliability of recorded experience resulting from these operations and conducting a frank appraisal of such experiences has made accounting a prime activity along with such other activities as marketing, production and finance. Cost accounting is primarily concerned with providing information relating to the conduct of the various aspects of a business like cost or profit associated with some portions of business operations to the internal parties viz., management.

The Institute of Cost and Management Accountants, London, has defined Cost Accounting as "the application of costing and cost accounting principles, methods and techniques to the science, art and practice of cost control and the ascertainment of profitability as well as the presentation of information for the purpose of managerial decision-making."

One of the principal functions of cost accounting is to assemble and interpret cost data, both actual and prospective, for the use of management in controlling current operations and in planning for the future.

All goods and services are meant for sale. So the organization has to fix selling price. The normal formula of selling price is as under

NOTES

Selling Price = Cost Price + Profit. To decide the selling price a firm has to know its cost price. Hence, the computation of the cost of production is very important. If the selling price is fixed arbitrarily without the computation of the cost of production, it may result in over pricing or under-pricing. In case of over pricing you will lose your customers and in case of under-pricing you will lose your profit. Selling Price acts as a balancing factor between the customers and profit. Hence, one should compute the cost of production as accurately as possible. For this purpose, one should know what are the different types of costs and how to prepare a cost sheet.

3.3 TYPES OF COST

In the process of cost accounting, costs are arranged and rearranged in various classifications. The term 'classification' refers to the process of grouping costs according to their common characteristics.

The different bases of cost classification are:

1. By nature, or elements (materials, labour and overheads)
2. By time (historical, pre-determined)
3. By traceability to the product (direct, indirect)
4. By association with the product (product, period)
5. By changes in activity or volume (fixed, variable, semi-variable)
6. By function (manufacturing, administrative, selling, research and development, pre-production)
7. By relationship with the accounting period (capital, revenue)
8. By controllability (controllable, non-controllable)
9. By analytical/decision-making purpose (opportunity, sunk, differential, joint, common, imputed, out-of-pocket, marginal, uniform, replacement)
10. By other reasons (conversion, traceable, normal, avoidable, unavoidable, total)

OPPORTUNITY COST

opportunity cost of a commodity is forgoing the opportunity to produce alternative goods and services. It is also called as Economic cost. In view of scarcity of resources, every producer has to make a choice among several alternatives. The second alternative use of a resource has to be sacrificed for using it in a particular way. Opportunity Cost can be also defined as the benefit forgone on the second best alternative. If you have a building, you can give it on rent. If you are using it for the own business, the rent that you would have received is sacrificed by you and that is the opportunity cost of Building. If you were not working in your own business, you would have done a job and earned salary. The salary that you would have received is sacrificed by you and that is the opportunity cost of your services.

Examples:

- Rent on own land and building used for business.
- Salary on the own efforts of owners/proprietor.
- Interest on the own capital invested by owners.

For example, Mr. A has Rs. 1,00,000 to invest. He has two options open.

- Keep the same with some bank in a fixed deposit and get the interest of 10% p.a.
- Invest the money in the business and get the return on investment of 12%.

If Mr. A decides to invest the money in business, he cannot get the interest on the fixed deposit from the bank. So the opportunity cost of investing the money in the business is in the form of lost interest on fixed deposits with the bank. It should be noted that the opportunity cost itself finds no place in the accounting process. However, it is required to be considered in the decision making process, for the comparison purpose. The returns available from a proposal should be more than the cost of opportunity lost, then and then only the proposal can be accepted.

IMPLICIT COST

Implicit cost includes the opportunity costs of those factors of production which are already owned by the businessman. These costs are not explicitly incurred by the producer for buying factors. Implicit cost is also called opportunity cost.

EXPLICIT COST

Explicit cost includes these payments which are made by the employer to those factors of production which do not belong to the employer himself. Direct Contractual Monetary Payments.

These costs are explicitly incurred by the producer for buying factors from others on contract. For example, the payments made for raw materials, power, fuel, wages and salaries, the rent on land and interest on capital are all contractual payments made by the employer. Explicit cost is also called accounting cost.

ACCOUNTING COST

All those expenses incurred by a producer that enter the accounts are known as accounting cost. Land: Rent, Labour: Wages, Capital: Interest and Enterprise: Profit.

MONEY COST

The sum of money spent for producing a particular quantity of commodity is called its money cost.

REAL COST

According to Marshall the real cost of production of a commodity is expressed not in money but in efforts and sacrifices undergone in the making of a commodity.

NOTES 

DIRECT AND INDIRECT COST

Direct Cost indicates that cost which can be identified with the individual cost centre. It consists of direct material cost, direct labour cost and direct expenses. It is also termed as Prime Cost. Indirect Cost indicates that cost which cannot be identified with the individual cost centre. It consists of indirect material cost, indirect labour cost and indirect expenses. It is also termed as overheads. As it is not possible to identify these costs with individual cost centres, such identification is done in the indirect way by following the process of allocation, apportionment and absorption.

SUNK COST

The historical cost which has been incurred in the past is called as "Sunk Cost". This type of cost is normally not relevant in the decision making process. This is also called as the Historical Cost. Example: Cost of acquiring machinery for the business.

THE RELEVANT COST

It the realisable Market Value of an asset. This type of cost is relevant in the decision making process.

CONTROLLABLE AND UNCONTROLLABLE COSTS

The costs which can be controlled by the management are called Controllable Costs. Example: Advertising expenses, Pay packages. The costs which cannot be controlled by the management are called Uncontrollable Costs. Example: Cost of Interest, Depreciation, Taxes, Dearness Allowances, raw material prices, electricity charges, water charges etc.

NORMAL AND ABNORMAL COSTS

The costs which are incurred in the normal course of the business are called as Normal Costs.

Example: Rent, Material Cost, Wages. The costs which are incurred due to the reasons beyond the control of the management such as Floods, earthquake, Tsunami, fire etc. are called as abnormal Costs. **Example:** Dacoit/loot of the goods, Loss of goods due to fire/ flood/earthquake.

FIXED, VARIABLE AND SEMI-VARIABLE/SEMI-FIXED COST

Fixed cost indicates that portion of total cost which remains constant at all the levels of production, irrespective of any change in the later. As the volume of production increases, per unit fixed cost may reduce, but not the total fixed cost. **Examples:** Depreciation, Interest on Loans, Rent, Salary of office staff etc. Variable cost indicates that portion of the total cost which varies directly with the level of production. The higher the volume of production, the higher the variable cost and vice versa, though per unit variable cost remains constant at all the levels of production. **Examples:** Raw Material, Wages of labour law, Repairs and maintenance etc. Semi-variable or semi-fixed cost indicates that portion of the total cost which is partly fixed and partly variable in relation to the volume of production.

NOTES 

MARGINAL COST

In Economics and Finance marginal cost is the change in Total Cost that arises when the quantity produced changes by one unit. It is the cost of producing one more unit of a commodity. The marginal cost of production is the increase in Total cost as a result of producing one extra unit. It is the variable costs associated with the production of one more units.

ELEMENTS OF COST

The elements of costs are the essential part of the cost. There are broadly three elements of cost, as explained below:

1. **Material:** The substance from which the produce is made is called material. It can be direct as well as indirect.
   a. **Direct Material:** It refers to those materials which become an integral part of the final product and can be easily traceable to specific physical units. Direct materials, thus, include:
      - All materials specifically purchased for a particular job or process.
      - Components purchased or produced.
      - Primary packing materials (e.g., carton, wrapping, card-board boxes etc.).
      - Material passing from one process to another.
   b. **Indirect Material:** All materials which are used for purpose ancillary to the business and which cannot conveniently be assigned to specific physical units are known as 'indirect materials'. Oil, grease, consumable stores, printing and stationery material etc. Are a few examples of indirect materials.
2. **Labour:** In order to convert materials into finished products, human effort is required. Such human effort is known as labour. Labour can be direct as well as indirect.
   a. **Direct Labour:** It is defined as the wages paid to workers who are engaged in the production process and whose time can be conveniently and economically traceable to specific physical units. When a concern does not produce but instead renders a service, the term direct labour or wages refers to the cost of wages paid to those who directly carry out the service, e.g., wages paid to driver, conductor of a bus in transport service.
   b. **Indirect Labour:** Labour employed for the purpose of carrying out tasks incidental to goods produced or services provided is called indirect labour or indirect wages. In short, wages which cannot be directly identified with a job, process or operation, are generally treated as indirect wages. Examples of indirect labour are: wages of storekeepers, foremen, supervisors, inspectors, internal transport men etc.
3. **Expenses:** Manufacturing Expenses other than Material and Labour costs. Expenses may be direct or indirect.

NOTES 

a. **Direct Expenses:** These are expenses which can be directly, conveniently and wholly identifiable with a job, process or operation. Direct expenses are also known as chargeable expenses or productive expenses. Examples of such expenses are: cost of special layout, design or drawings, hire of special machinery required for a particular contract, maintenance cost of special tools needed for a contract job, etc.

b. **Indirect Expenses:** Expenses which cannot be charged to production directly and which are neither indirect materials nor indirect wages are known as indirect expenses. Examples are rent, rates and taxes, insurance, depreciation, repairs and maintenance, power, lighting and heating etc.

ELEMENT OF COST

Material Cost	=Direct Material + Indirect Material
Labour Cost	=Direct Labour + Indirect Labour
Other Expenses	=Direct Expenses + Indirect Expenses
Total Factory Cost	=Total Direct Cost + Total Indirect Cost

3.4 COST CENTRE

Cost Centre is defined as a location, person, or item of equipment (or a group of these) in or connected with an undertaking, in relation to which costs may be ascertained and used for the purpose of cost control. Correct identification of a cost centre is a pre-requisite for the successful implementation of the cost accounting process as the costs are ascertained and controlled with respect to the cost centres. Similarly, correct identification of cost centre facilitates the fixation of responsibility in a correct manner.

3.5 MATERIAL COSTS

Material cost is the first and probably the most important element of cost. In the case of specific types of industries, say cement, sugar, chemicals, iron and steel etc., the materials cost forms a very significant portion of the overall cost of production. The term material refers to all commodities which are consumed in the production process. The materials which can be consumed in the production process can be basically classified as:

1. Direct Materials
2. Indirect Materials

STAGES IN THE MOVEMENT OF MATERIAL

The movement of material may involve the following stages.

1. Procurement of materials.
2. Storing the material till it is required for consumption.
3. Issue of the material for consumption.

NOTES 

Procurement of Materials: Though the practices may differ from organisation to organisation, normally, the process of purchasing the materials involves the following stages.

1. **Purchase Requisition:**
   a. Material to be purchased
   b. When it is required
   c. How much to be purchased

   Before deciding the quantity to be purchased, consideration will have to be given to the following factors also:

   a. Quantity already ordered.
   b. Quantity reserved. This quantity is such, as if it is not in stock.
   c. Funds availability: Amounts which are kept aside for drawing up purchase budget should be considered.

   If proper planning is not done regarding material management, it may result in over stocking or under stocking. Both these situations have their advantages and disadvantages

OVER STOCKING

Advantages:

1. Ordering cost is low
2. No fear of shortage of material for production chain.
3. If the price increases in future benefit

Disadvantages:

1. Carrying cost is High
2. If the price decreases in future Loss
3. Blocking of working capital.
4. Risk of deterioration of quality and obsolescence.
5. More storage facilities.
6. Additional Insurance Cost.
7. More material handling and up keeping.
8. Risk of breakage/pilferage etc.

UNDERSTOCKING

Advantages:

1. Ordering Carrying cost is low
2. If the price decreases in future benefit

Disadvantages:

1. Ordering cost is High

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2. Fear of shortage of material for production chain.
3. Production holdups, resulting into disturbed delivery schedules.
4. Frantic eleventh hour purchases which may result into unfavourable prices and quality.
5. Payment for idle time to workers.
6. Increase in Ordering Cost.
7. If the price increases in future Loss

To have more advantages and to minimize the disadvantages, an organization should maintain optimum stock of materials.

INVENTORY

Inventory means all the materials, parts, suppliers, expenses and in process or finished products recorded on the books by an organization and kept in its stocks, warehouses or plant for some period of time.

Types of Inventory

1. Raw Materials
2. Finished Components
3. Work-in-Progress(WIP)
4. Finished Goods
5. Goods in Transit
6. Tools
7. Auxiliary Materials
8. Machine Spares

NEED FOR INVENTORY

1. To gain economies in Purchasing /Manufacturing.
2. Safety Stocks to avoid stock outs.
3. To satisfy the demand during the period of replenishment.
4. To level out Production.
5. To prevent loss of Sales.
6. To create buffer against uncertainty in Supplier's Plant.
7. To take advantage of lower transportation cost.
8. Supplier's condition of minimum quantity.
9. Govt. Regulations.

INVENTORY CONTROL

Inventory control is the technique of maintaining the size of the inventory at some desired level keeping in view the best economic interest of an organization.

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Objectives of inventory control

1. Protection against fluctuations in demand;
2. Better use of men, machines and material;
3. Protection against fluctuations in output;
4. Control of stock volume;
5. Control of stock distribution.
6. Deciding optimum order size
7. Deciding Reorder point

Major activities of inventory control

1. Planning the inventories;
2. Procurement of inventories;
3. Receiving and inspection of inventories;
4. Storing and issuing the inventories;
5. Recording the receipt and issues of inventories.
6. Physical verification of inventories;
7. Follow-up function;
8. Material standardization and substitution.

INVENTORY DECISIONS

Executive decide two basic issues while dealing with inventories;

1. How much of an item to order when the inventory of that item is to be replenished?
2. When to replenish the inventory of that item.

Inventory decisions facilitate production or satisfy customer demands. Inventory system is a set of policies and controls which monitors and determines the levels of inventory.

PERPETUAL INVENTORY SYSTEM

It is a method of recording stores balances after every receipt and issue, to facilitate regular checking and obviate closing down for stock taking. -Wheldon

Factors which help helpful to make system successful

1. Stores ledger, stores control, cards or bin cards are properly maintained;
2. Quantity balance store shown in the store ledger; stock control and bin cards are reconciled;
3. Exploring the cause of discrepancies if any physical balances and book balances.

STEPS IN INVENTORY CONTROL

1. Deciding the maximum- minimum limits of inventory;
2. Determination of Reorder point;
3. Determination of reorder quantity;

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4. Perpetual inventory control;
5. ABC analysis;

METHOD OF CONTROL THROUGH TURN OVER.

Inventory Turnover method

It means how many times a company's inventory is sold and replaced (finished product)

EXAMPLE: Opening Stock 100

Closing stock 200

Cost of goods sold 1500.

Calculate Inventory Turnover Ratio

ITR = COGS/Average Stock = 1500/150 = 10 times.

It can also be calculated as stockholding period.

(Average Stock*365)/COGS = 150*365/1500= 36 days

It can also be calculated as Percentage.

(Average Stock* 100)/CGGS= 150*100/1500= 10%

3.6 LABOUR COSTS

Labour Cost is another important element of cost in the manufacturing cost.

METHODS TO ASCERTAIN LABOUR COST

The starting point for ascertaining the labour cost is in the form of Time Keeping and Time Booking.

1. **Time Keeping:** This is the process of recording the attendance time of the workers. The recording of time attended may be necessary from the following angles.
   a. To maintain discipline.
   b. Though the regular wages may not depend upon the time attended, in some cases, the other payments like overtime wages, dearness allowance etc. may be linked with the attendance.
   c. The fringe benefits like Pension, Gratuity on retirement. Provident Fund etc. may depend on the continuity of service which will be available only if time attended is recorded properly.
   d. Attendance records may be required for research and other purposes.

Methods of Time Keeping:

1. **Hand-Written Method:** Under this method, the names of the workers are recorded in the attendance register with provision of various columns for various days.

a. **Token or Disc Method:** Under this method, each worker is allotted an identification number and a disc or token bearing that number. Immediately before the scheduled opening time, all the tokens/discs will be placed at the factory gate. Every incoming worker will take out his token and drop it in a separate box or hang it on a separate board. The tokens/discs not removed will indicate that the said worker is absent.

b. **Time Recording Clock Method:** Under this method, every worker is allotted an individual ticket number and a clock card which bears that ticket number. The cards are placed on two racks on either side of the time recording clock denoting separately TN' rack and 'Out' rack. At opening time, all the cards are placed in the 'Out' rack. On arrival, the worker takes out his own card, puts it in the slot available on the time clock recorder which punches the time on that card, and places the card in the In' rack. All the cards, left in the 'Out' rack indicate absent workers. At the time of departure, he removes the card from the In' rack, gets it punched and places it in the 'Out 'rack.

   It is clean, safe and quick and has printed records to avoid disputes. Chances of fraudulent entries being made can be avoided.

2. **Time Booking:** The ultimate aim of costing is to decide the cost of each cost centre. Equally important is to record the time spent for individual cost centres. This process is in the form of time booking. The methods followed for this purpose, may be considered as below:

   a. **Daily time sheets:** Under this method, each worker is provided with a daily time sheet on which the time spent by him on various jobs/work orders is expected to be mentioned.

   b. **Weekly Time Sheets:** Under this method too, one sheet is allotted to each worker but instead of recording the work done for only a day, a record of time for all the jobs during the week is made. These types of time sheets are useful for intermittent types of jobs like building or construction work. It involves a comparatively less amount of paper work.

   c. **Job Card:** Under this method, the details of time are recorded with reference to the jobs or production/work orders undertaken by the workers rather than with reference to individual workers and this facilitates the computation of labour cost with reference to jobs or production/ work orders. There may be two ways in which job card may be maintained.

   d. **Reconciliation of the time attended and the time booked:** For ensuring proper control over labour it is necessary to match the time kept at the gate with the time booked. This reconciliation implies ascertaining that the time spent by a worker in the factory is equal to his time at work plus recorded idle time. Idle time is the time when the worker does no work and remains idle.

The reasons for idle time are numerous such as waiting for materials, tools, orders, failure of power supply, breakdown of machinery, accidents etc. Idle time, so that every minute

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spent by a worker may be correctly accounted for. It helps in taking steps to reduce the idle time. It ensures a proper reconciliation between the time booked and time kept.

3.7 OVERHEAD EXPENSES

The term overheads include indirect material, indirect labour and indirect expenses. Overheads may be incurred in the factory, office or selling and distribution departments/ divisions in an undertaking. Thus overheads may be of three types: factory overheads, office and administrative overheads and selling and distribution overheads. This classification of overheads may be shown thus:

Classification of Overheads

Factory Overheads	=	Indirect Material + Indirect Labour + Indirect Expenses
Office Overheads	=	Indirect Material + Indirect Labour + Indirect Expenses
Selling and distribution Overheads	=	Indirect Material + Indirect Labour + Indirect Expenses

1. **Factory Overheads:**
   - Indirect Material such as consumable stores, cotton waste, oil and lubricants etc.
   - Indirect Labour Cost such as wages paid to the foreman/storekeeper, works manager's salary etc.
   - Indirect Expenses such as carriage inward cost, cost of factory lighting/power expenses, rent/insurance/repairs for factory building/machinery, depreciation on factory building or machinery etc.
2. **Office and Administration Overheads:**
   - Indirect Material such as stationery items, office supplies etc.
   - Indirect Labour cost such as salaries paid to Accounts and Administration staff, Directors' remuneration etc.
   - Indirect Expenses such as postage/telephone, rent/insurance/repairs/depreciation on office building, general lighting, legal/audit charges, bank charges etc.
3. **Selling and Distribution Overheads:**
   - Indirect Material such as packing material, samples etc.
   - Indirect Labour like salaries paid to sales personnel, commission paid to sales manager etc. Indirect Expenses like carriage outwards, warehouse charges, advertisement, bad debts, repairs and running of distribution van, discount offered to customers etc.

3.8 PREPARATION OF COST SHEET

The various elements/components of the cost as discussed above can be presented in the form of a statement, popularly known as 'Cost Sheet' or 'Cost Statement'. The cost sheet may be prepared separately for each cost centre and may have the columns like, cost per unit or cost of previous period etc.

Costs of production are the most important force governing the supply of a product. A firm chooses a combination of factors which minimizes its cost of production for a given level of output. Production of a commodity involves expenses to be incurred on different factors viz. hand, Labour, Capital and Enterprise. It is the sum total of expenses incurred by the producer to pay for the factors of production. Costs of production have different meanings.

Selling Price = Cost Price + Profit.

Everything that a firm produces has to be sold. The firm has to fix Selling Price. As per the formula above, Selling Price depends on Cost Price. Hence Cost price should be known to decide the correct Selling price after adding profit margin. If the correct price is not calculated, it may lead to a situation of over pricing or under-pricing. Hence, the computation of the cost of production is very important. Cost Sheet helps in calculating the per unit cost of production.

A Proforma cost sheet is shown below:

Format of Cost sheet

S.NO	PARTICULARS
1.	Material Cost
	Material consumed
	opening stock+ Purchases-Closing stock
	Carriage inward
	Total Material Cost
2.	Labour cost
	Payment made to labours
	Contribution to EPF/Gratuity/Perquisites
	Total Labour Cost
3.	Prime cost (3=1 +2)
	Other direct manufacturing expenses
	Power & Fuel
	Repairs & Maintenance
	Factory rent
	Depreciation of machinery
	Spare parts & accessories
	Lubricants

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	Others
	Total Other Cost
4.	Other direct manufacturing expenses
	Power & Fuel
	Repairs & Maintenance
	Factory rent
	Depreciation of machinery
	Spare parts & accessories
	Lubricants
	Others
	Total Other Cost
5.	Factory cost (5=3+4)
6.	Factory Over Heads (Indirect Cost)
	Indirect Material
	Indirect Labour cost
	Indirect Other cost
	Total Over Plead Costs
7.	Cost of goods sold (7= 5+6)
8.	Administrative expenses
	Salary
	Depreciation of furnitures of office
	Insurances of office assets
	Licence fees/taxes
	Stationery
	Telephone
	Postage
	Electricity of office
	Rent of Office
	Miscellaneous expenses
	Total Administrative expenses
9.	Total cost of Production (9=7+8)
10.	Selling expenses
	Travelling Expenses
	Advertisement & Publicity
	Discount given
	Bad debts
	Packing
	Carriage outward
	Any others

	Total Selling expenses
11.	Cost of sales (11 =9+10)
12.	Profit Margin % of col 11
13.	Sale price (13=11 + 12)
14.	No. of units to be sold
15.	Sale price per unit (15= 13/14)

EXAMPLE: Prepare a cost sheet on the basis of the following information. Calculate selling price per unit if total no. of units is 1000 and Profit margin is 20%.

Opening stock	4,000
Purchases of Raw material	39,000
Closing stock	5,000
Carriage inward	2,000
Payment made to labours	12,000
Contribution to EPF/Gratuity/Perquisites	3,000
Power & Fuel	1,100
Repairs & Maintenance	900
Factory rent	1,300
Depreciation of machinery	1,400
Spare parts & accessories	400
Lubricants	300
Other manufacturing expenses	100
Indirect Material	450
Indirect Labour cost	550
Indirect Other cost	150
Salary	5,500
Depreciation of furniture of office	2,500
Insurances of office assets	750
Licence fees/taxes	125
Stationery	75

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Telephone	123
Postage	251
Electricity of office	352
Rent of Office	654
Miscellaneous expenses	259
Travelling Expenses	459
Advertisement & Publicity	126
Discount given	25
Bad debts	43
Packing	12
Carriage outward	71
Other selling expenses	19

Solution:

S.No.	Particulars	Amount	Amount
1	Material Cost		
	Material consumed-	38,000	
	opening stock+ Purchases-Closing stock		
	4000+39000-5000		
	Carriage inward	2,000	
	Total Material Cost		40,000
2	Labour cost		
	Payment made to labours	12,000	
	Contribution to EPF/Gratuity/Perquisites	3,000	
	Total Labour Cost		15,000
3	Prime cost (3=1+2)		55,000
4	Other direct manufacturing expenses		
	Power & Fuel	1,100	
	Repairs & Maintenance	900	
	Factory rent	1,300	

	Depreciation of machinery	1,400	
	Spare parts & accessories	400	
	Lubricants	300	
	Others	100	
	Total Other Cost		5,500
5	Factory cost (5=3+4)		60,500
6	Factory Over Heads (Indirect Cost)		
	Indirect Material	450	
	Indirect Labour cost	550	
	Indirect Other cost	150	
	Total Over Head Costs	700	
7	Cost of goods sold (7= 5+6)	61,200	
8	Administrative expenses		
	Salary	5,500	
	Depreciation of furnitures of office	2,500	
	Insurances of office assets	750	
	Licence fees/taxcs	125	
	Stationery	75	
	Telephone	123	
	Postage	251	
	Electricity of office	352	
	Rent of Office	654	
	Miscellaneous expenses	259	
	Total Administrative expenses		10,589
9	Total cost of Production (9=7+8)		71,789
10	Selling expenses		
	Travelling Expenses	459	
	Advertisement & Publicity	126	
	Discount given	25	
	Bad debts	43	
	Packing	12	

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	Carriage outward	71	
	Any others	19	
	Total Selling expenses		755
11	Cost of sales (11 =9+10)		72,544
12	Profit Margin % of col 11	20%	14,509
13	Sale price (13=11+12)		87,053
14	No. of units to be sold		1,000
15	Sale price per unit (15= 13/14)		87

CHECK YOUR PROGRESS

1. **Write a short note on cost accounting.**
2. **Write short note on opportunity cost.**
3. **What are the different bases of cost classification?**
4. **Write short note on cost centre.**
5. **Discuss time keeping methods.**

3.9 FORMULAS FOR VARIOUS COST CALCULATIONS

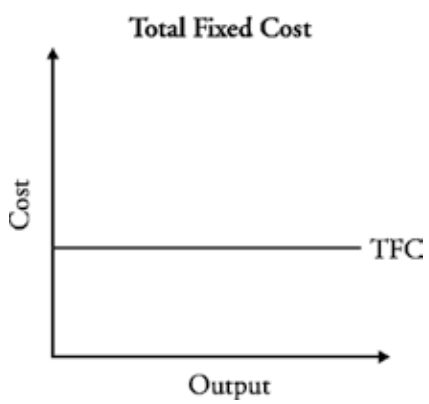
There is a definite relationship between Cost, Volume and Profit. As the volume increases, the average fixed cost decreases, average cost also decreases and the profit increases. Cost-volume-profit (CVP) analysis focuses on the way cost and profit change when volume changes. It is, broadly speaking, that system of analysis which determines the probable profit at any level of activity. This technique is generally used to analyse the incremental effect of volume on costs, revenues and profits. At what volume of operations are costs and revenues equal? What volume of output or sales would be necessary to earn a profit of say Rs. 2 lakhs? How much profit will be earned at a volume of, say 10,000 units? What will happen if there is a reduction of 10 percent in the selling price? Questions like these are sought to be answered through CVP analysis. This detailed analysis will help the management to know the profit levels at different activity levels of production and sales and various types of costs involved in it.

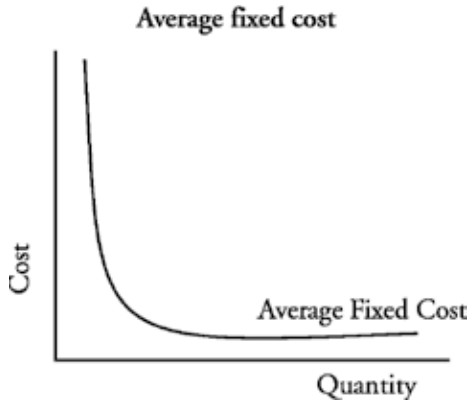
Average Fixed cost.

Calculation of average cost is important to fix the selling price per unit.

Average Fixed Cost = Total Fixed Cost/Total No. Of Units.

Total Fixed Cost remains constant but Average Fixed Cost goes on decreasing as the level of production increases. If the production is very high, the average fixed cost may become negligible. This is called Economy of Scale. It means if the scale of business is high, the average fixed cost becomes negligible and average cost becomes equal to variable cost.

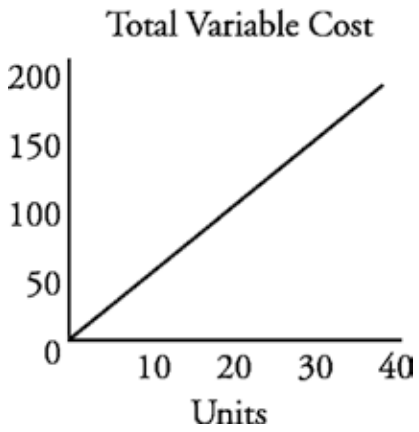




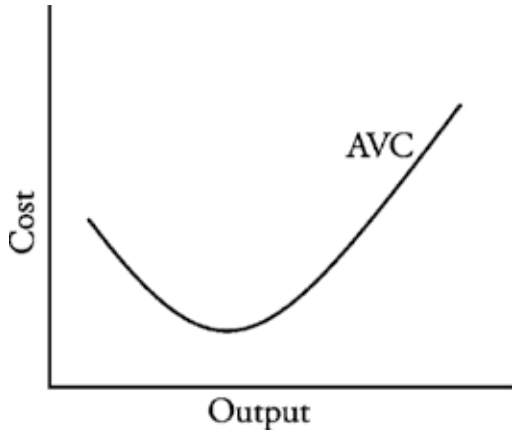
Average Variable cost:

Average Variable Cost = Total Variable Cost/Total No. Of Units.

Average Variable Cost remains constant but Total Variable Cost goes on increasing as the level of production increases.



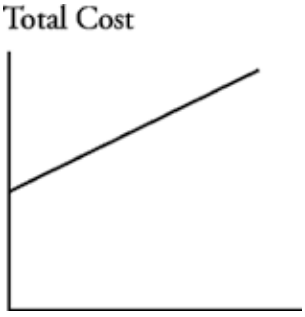
Average variable cost

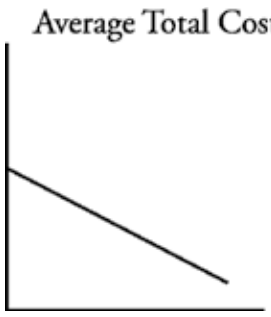


Average Total cost:

Average Total Cost = Total Fixed + Variable Cost/Total No. Of Units.

Average Total Cost goes on decreasing as the level of production increases. But, Total Cost goes on increasing as the level of production increases.





Total Cost = Total Fixed Cost + Total Variable Cost

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Formulas:

- Average Fixed Cost = Total Fixed Cost /Total No. Of Units.
- Average Variable Cost = Total Variable Cost /Total No. Of Units.
- Average Total Cost = Total Cost/Total No. Of Units.
- Total Cost =Total Fixed Cost + Total Variable Cost.
- Total Variable Cost = Total No. Of Units * Variable Cost Per Unit
- Marginal Cost = Change in Total Cost/ Change in Output = ΔTC / Δ Q
- Total Revenue = Total No. Of Units * Selling Price Per Unit
- Average Revenue = Total Revenue /Total No. Of Units
- Marginal Revenue = Change in Total Revenue/Change in No. Of Units
- Total Profit = Total Revenue - Total Cost
- Average Profit = Total Profit/Total No. Of Units
- Marginal Profit = Change in Total Profit / Change in No. Of Units
- Marginal Profit = Marginal Revenue - Marginal Cost

Abbreviations used in Costing

TFC - Total Fixed Cost

AFC= Average Fixed Cost

TVC = Total Variable Cost

AVC= Average Variable Cost

ATC= Average Total Cost

AC= Average Cost

TC= Total Cost

TR= Total Revenue

AR= Average Revenue

TP = Total Profit

AP=Average Profit

MR= Marginal Revenue

MC= Marginal Cost

MP= Marginal Profit

EXAMPLE:

No of units	Fixed cost	Average Fixed Cost	Variable Cost	Average Variable Cost	Total Cost	Aver Total Cost
0	100,000	n.a.	0	0	100,000	n.a
200	100,000	500	20,000	100	120,000	600
400	100,000	250	40,000	100	140,000	350
600	100,000	167	60,000	100	160,000	267
800	100,000	125	80,000	100	180,000	225
1,000	100,000	100	100,000	100	200,000	200
1,500	100,000	67	150,000	100	250,000	167

Observations on Cost Behaviour

1. Total fixed cost is constant.
2. Average Fixed Cost is decreasing gradually.
3. Total Variable Cost is increasing gradually.
4. Average Variable Cost is constant.
5. Total Cost is increasing gradually.
6. Aver Total Cost is decreasing gradually.

3.10 COST VOLUME-PROFIT RELATIONSHIP

There is a definite relationship between Cost, Volume and Profit. As the volume increases, the average fixed cost decreases, average cost also decreases and the profit increases. Cost-volume-profit (CVP) analysis focuses on the way cost and profit change when volume changes. It is, broadly speaking, that system of analysis which determines the probable profit at any level of activity. This technique is generally used to analyse the incremental effect of volume on costs, revenues and profits

The following are the three important aspects of a business.

1. Selling price per unit and total sales amount.
2. Total cost which in its turn may be in the form of variable cost or fixed cost.
3. Volume of sales

Cost-Volume-Profit Analysis aims at studying the relationships existing among these factors and its impact on the amount of profits.

Let us study the following examples

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Calculating Cost, Volume and Profit at different levels of production

EXAMPLE

Fixed Cost Rs. 20,000

Variable Cost Rs.30PU Selling Price Rs. 50 PU

No of units	Fixed cost	Variable Cost	Total Cost	Sales (Revenue)	Total Profit
0	20,000	0	20,000	0	-20,000
200	20,000	6000	26,000	10000	-16,000
400	20,000	12000	32,000	20000	-12,000
600	20,000	18000	38,000	30000	-8,000
800	20,000	24000	44,000	40000	-4,000
1,000	20,000	30000	50,000	50000	0
1,500	20,000	45000	65,000	75000	10,000

EXAMPLE

Fixed Cost Rs. 10,000

Variable Cost Rs. 10 P U Selling Price Rs. 15 P U

No of units	Total Cost	Aver Total Cost	Sales (Revenue)	Average Revenue	Total Profit	Average Profit
0	10,000	n.a	0	n.a	-10,000	na
500	15,000	30	7,500	15	-7,500	-15
1,000	20,000	20	15,000	15	-5,000	-5
1,500	25,000	17	22,500	15	-2,500	-2
2,000	30,000	15	30,000	15	0	0
5,000	60,000	12	75,000	15	15,000	3
10,000	110,000	11	150,000	15	40,000	4

You can observe from the above table that as the sales (Volume) increases Average Cost decreases and Total Profit increases. This shows that there is a relationship between Cost, Volume and Profit.

Application of Cost-Volume-Profit Analysis

CVP analysis helps in:

a. Forecasting the profit in an accurate manner

b. Preparing the flexible budgets at different levels of activity

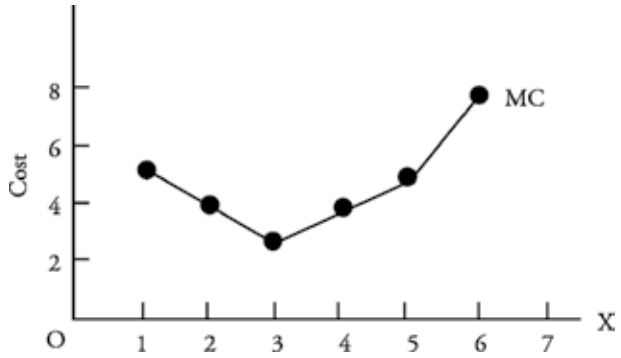
c. Fixing prices for products

3.11 ECONOMY OF SCALE

Scale means scale of production or level of production. As you increase the scale of production Average fixed cost goes on decreasing and it becomes negligible. Total cost also goes on decreasing and it almost becomes equal to variable cost. So a big organization can increase the scale of production to reduce its average cost of production and it can sell at a lower price than the competitors or small firms. This is called economy of scale. Small firms have higher average cost of production and hence they cannot compete with big firms. It can be explained as "Big fish eating Small Fish".

3.12 MARGINAL COSTING

The marginal cost of production is the increase in Total cost as a result of producing one extra unit. It is the variable costs associated with the production of one more units.



Marginal Cost = Change in Total Cost/change in quantity.

Units of Output	Total Cost	Marginal Cost
1	5	5
2	9	4
3	12	3
4	16	4
5	21	5
6	29	8

Many firms follow the pricing policy of Marginal Cost + Profit. They don't consider the average cost. Average cost includes partly the average fixed cost. As long as your selling

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price is more than your marginal cost you can make profit even though the selling price is less than average cost.

EXAMPLE

Bus with a capacity of 40 seats is going from Pune to Solapur. The ticket price is fixed as Rs.400 per person. Average Cost is Rs.200 per person. Suppose a bus has 20 passengers who have paid Rs.400 each and it has left Pune. At the outskirts of Pune there are 10 passengers who want to go to Solapur. They bargain with the bus operator and request for a fare of Rs.200 each. Since the marginal cost o ('additional passenger is nil, the bus operator will make a profit of Rs.2,000 (200 * 10) by accepting their request. Normally we feel that the bus operator made a loss of Rs. 2,000 i.e (400-200) per person for 10 persons.

A five start hotel as a tariff of Rs. 10,000 per day and the marginal cost of one room per day is Rs.500/-. Now even if the lodge gives a discount of 80% and charges Rs. 2,000 per day per room, the lodge will make a profit of Rs. 1,500 per day per room compared to keeping the rooms vacant.

Marginal costing is a technique of costing. This technique of costing uses the concept 'marginal cost'. Marginal cost is the change in the total cost of production as a result of change in the production by one unit. Thus marginal cost is nothing but variable cost. In marginal costing technique only variable costs are considered while calculating the cost of the product, while fixed costs are charged against the revenue of the period. The revenue arising from the excess of sales over variable costs is known as 'contribution'. Using contribution as a vital tool, marginal costing helps to a great extent in the managerial decision making process. This unit deals with the various aspects of marginal costing.

According to the Institute of cost and management accountants (icma), London, marginal cost is 'the amount at any given volume of output by which aggregate costs are changed if the volume of output is increased or decreased by one unit'. Thus marginal cost is the added cost of an extra unit of output.

MC = Direct Material + Direct Labour + Other Variable Costs = Total Cost - Fixed Cost.

EXAMPLE

A concern manufacturing product x has provided the following information:

Sales	75,000
Direct materials	30,000
Direct labour	10,000
Variable overhead	10,000
Fixed overhead	15,000

In order to increase its sales by Rs. 25,000, the concern wants to introduce the product y, and estimates the costs in connection therewith as under:

Direct materials	10,000	Direct labour	8,000
Variable overhead	5,000	Fixed overhead	Nil

Advise whether the product Y will be profitable or not.

Sol:

Marginal Cost Statement	X	Y	(in Rupees) Total
Sales	75,000	25,000	1,00,000
Less: marginal costs:			
Direct materials	30,000	10,000	40,000
Direct labour	10,000	8,000	18,000
Variable overhead	10,000	5,000	15,000
	50,000	23,000	73,000
Contribution	25,000	2,000	27,000
Fixed cost			15,000
Profit			12,000

Commentary: If product Y is introduced, the profitability of product X is not affected in any manner. On the other hand, product Y provides a contribution of Rs. 2,000 Towards fixed cost and profit. Therefore, Y should be introduced.

BENEFITS OF MARGINAL COSTING

The technique of marginal costing is of immense use to the management in taking various decisions, as explained below:

1. **How Much to Produce?**
   Marginal costing helps in finding out the level of output which is most profitable for running a concern. This, in turn, helps in utilising plant capacity in full, and realise maximum profits. By determining the most profitable relationships between cost, price and volume, marginal costing helps a business determine most competitive prices for its products.

2. **What to Produce?**
   By applying marginal costing techniques, the most suitable production line could be determined. The profitability of various products can be compared and those products which languish behind and which do not seem to be feasible (in view of their inability to recover marginal costs), may be eliminated from the production line by using marginal costing. It, thus, helps in selecting an optimum mix of products, keeping the capacity and resource constraints in mind. It will also serve as a guide in arriving at the price for new products.

NOTES 

3. **Whether to Produce or Procure?**
   The marginal cost of producing an article inside the factory serves as a useful guide while arriving at make or buy decisions. The costs of manufacturing can be compared with the costs of buying outside and a suitable decision can be arrived at easily.

4. **How to Produce?**
   In case a particular product can be produced by two or more methods, ascertaining the marginal cost of producing the product by each method will help in deciding as to which method should be allowed. The same is true in case of decisions to use machine power in place of manual labour.

5. **When to Produce?**
   In periods of trade depression, marginal costing helps in deciding whether production in the plants should be suspended temporarily or continued in spite of low demand for the firm's products.

6. **At What Cost to Produce?**
   Marginal costing helps in determining the no profit- no-loss point. The efficiency and economy of various products, plants, departments can also be determined. This helps in profit planning as well as cost control.

LIMITATIONS OF MARGINAL COSTING

Marginal costing has the following limitations:

1. **Difficulty in classification:** In marginal costing, costs are segregated into Fixed and variable. In actual practice, this classification scheme proves to be Superfluous in that, certain costs may be partly fixed and partly variable and Certain other costs may have no relation to volume of output or even with the time. In short, the categorisation of costs into fixed and variable elements is a difficult and tedious job.
2. **Difficulty in Application:** the marginal costing technique cannot be applied in industries where large stocks in the form of work-in-progress (job and contracting firms) are maintained.
3. **Defective Inventory Valuation:** under marginal costing, fixed costs are not included in the value of finished goods and work in progress. As fixed costs are also incurred, these should form part of the cost of the product. By eliminating fixed costs from finished stock and work-in-progress, marginal costing techniques present stocks at less than their true value. Valuing stocks at marginal cost is objectionable because of other reasons also:
   a. In case of loss by fire, full loss cannot be recovered from the insurance
   b. company.
   c. Profits will be lower than that shown under absorption costing and hence may
   d. be objected to by tax authorities.

e. c. Circulating assets will be understated in the balance sheet.

4. **Wrong Basis for Pricing:** In marginal costing, sales prices are arrived at on the basis of contribution alone. This is an objectionable practice. For example, in the long run, the selling price should not be fixed on the basis of contribution alone as it may result in losses or low profits. Other important factors such as fixed costs, capital employed should also be taken into account while fixing selling prices. Further, it is also not correct to lay more stress on selling function, as is done in marginal costing, and relegate production function to the background.

5. **Limited Scope:** The utility of marginal costing is limited to short-run profit planning and decision-making. For decisions of far-reaching importance, one is interested in special purpose cost rather than variable cost. Important decisions on several occasions, depend on non-cost considerations also, which are thoroughly discounted in marginal costing.

   In view of these limitations, marginal costing needs to be applied with necessary care and caution. Fruitful results will emerge only when management tries to apply the technique in combination with other useful techniques such as budgetary control and standard costing.

MARGINAL REVENUE

The concept of Marginal Revenue is same as Marginal Cost. The marginal Revenue is the increase in Total Revenue as a result of selling one extra unit. It is the variable revenues associated with the selling of one more units.

Marginal Revenue = Change in Total Revenue/ Change in Output = $\Delta TR/\Delta Q$

EXAMPLE

No of units	Sales	Change in Units	Change in Revenue	Marginal Revenue
200	3000			
300	4600	100	1600	16
400	6300	100	1700	17
500	7800	100	1500	15
600	9400	100	1600	16

Marginal Profit:

The concept of Marginal Profit is same as Marginal Cost. The marginal Profit is the increase in Total Profit as a result of selling one extra unit. It is the variable Profit associated with the selling of one more units.

Marginal Profit =Change in Total Profit/Change in Output

NOTES

EXAMPLE

No of units	Total Profit	Change in Units	Change in Profit	Marginal Profit
0	-20000			
100	-16000	100	4000	40.00
195	-11000	95	5000	52.63
285	-6000	90	5000	55.56
372	-1000	87	5000	57.47
390	0	18	1000	55.56
470	4800	80	4800	60.00
550	9500	80	4700	58.75
680	16500	130	7000	53.85

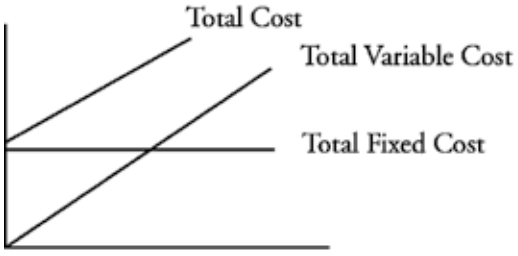
3.13 BREAK EVEN ANALYSIS

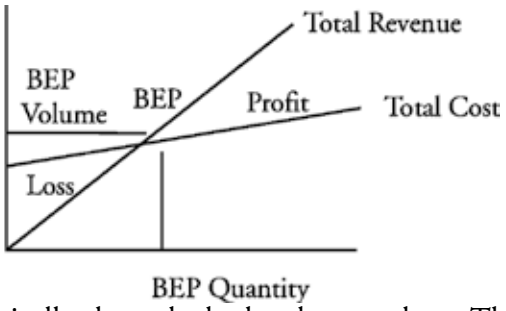
BREAK EVEN POINT (BEP): This is a situation of no profit no loss. It means that at this stage, contribution is just enough to cover the fixed costs i.e. Contribution - Fixed Cost. It also means that contribution generated by all sales beyond Break Even Point will directly result into profits. As such, it will be intention of every business to reach the Break Even Point, as early as possible. The Break Even Point may be expressed in two ways.

a. In terms of quantity-Fixed Costs/ Contribution per unit

b. In term of amount- Fixed Costs/P/V Ratio

BREAK-EVEN CHART



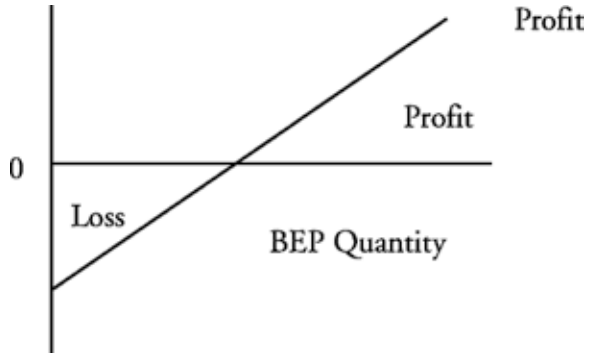


The break-even point can also be shown graphically through the break-even chart. The break-even chart 'shows the profitability or otherwise of an undertaking at various levels of activity and as a result indicates the point at which neither profit nor loss is made'. It shows the relationship, through a graph, between cost, volume and profit. The break-even point lies at the point of intersection between the total cost line and the total sales line in the chart. In order to construct the breakeven chart, the following assumptions are made:

NOTES

PROFIT GRAPH

This graph (called profit graph) gives a pictorial representation of cost-volume profit relationship. In this graph x axis represents sales. However, the sales line bisects the graph horizontally to form two areas. The ordinate above the zero sales line, shows the profit area, and the ordinate below the zero sales line indicates the loss or the fixed cost area. The profit-volume-ratio line is drawn from the fixed cost point through the break-even point to the point of maximum profit. In order to construct this graph, therefore, data on profit at a given level of activity, the break-even point and the fixed costs are required.



ASSUMPTIONS OF BREAK-EVEN CHART

1. Fixed costs will remain constant and do not change with the level of activity.
2. Costs are bifurcated into fixed and variable costs. Variable costs change according to the volume of production.
3. Prices of variable cost factors (wage rates, price of materials, suppliers etc.) Will remain unchanged so that variable costs are truly variable.
4. Product specifications and methods of manufacturing and selling will not undergo a change.
5. Operating efficiency will not increase or decrease.
6. Selling price remains the same at different levels of activity.
7. Product mix will remain unchanged.
8. The number of units of sales will coincide with the units produced, and hence, there is no closing or opening stock.

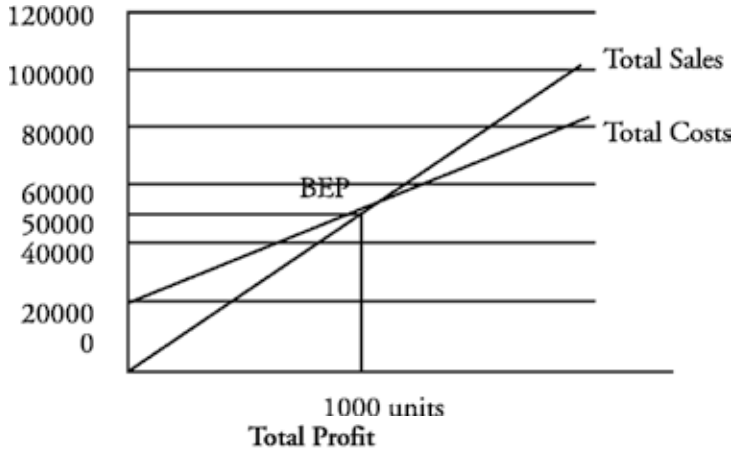
CONSTRUCTION OF BREAK-EVEN CHART

The following steps are required to be taken while constructing the Break-even chart:

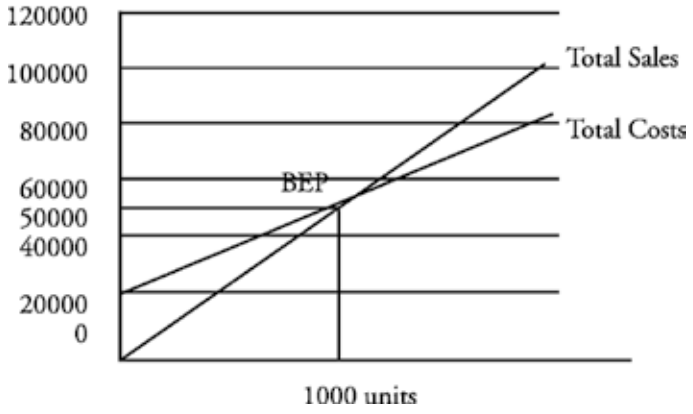
1. Sales volume is plotted on the x-axis. Sales volume can be shown in the form of rupees, units or as a percentage of capacity. A horizontal line is drawn spacing equal distances showing sales at various activity levels.
2. Y axis represents revenues, fixed and variable costs. A vertical line is also spaced in equal parts.
3. Draw the sales line from point o onwards. Cost lines may be drawn in two ways fixed cost line is drawn parallel to x axis and above it variable cost line is drawn from zero point of fixed cost line. This line is called the total cost line

NOTES

4. The point at which the total cost cuts across the sales line is the break-even point and volume at this point is break-even volume.
5. The angle of incidence is the angle between sales and the total cost line. It is formed at the intersection of the sales and the total cost line, indicating the profit earning capacity of a firm. The wider the angle the greater is the profit and vice versa. Usually, the angle of incidence and the margin of safety are considered together to show that a wider angle of incidence coupled with a high margin of safety would indicate the most suitable conditions.



Total Profit



MARGIN OF SAFETY:

These are the sales beyond Break Even Point. A business will like to have a high margin of safety because this is the amount of sales which generates profits. As such, the soundness of the business is indicated by the margin of safety.

Margin of safety = – profit/pv ratio

Margin of Safety = Sales * PV Ratio – Fixed Cost

PV Ratio = (Contribution/Sales) * 100

ADVANTAGES AND LIMITATIONS OF BREAK-EVEN ANALYSIS

The break-even analysis is a simple tool employed to graphically represent accounting data. The data revealed by financial statements and reports are difficult to understand and

interpret. But when the same are presented through break-even charts, it becomes easy to understand them.

BREAK-EVEN CHARTS HELP IN:

1. Determining total cost, variable cost and fixed cost at a given level of activity.
2. Finding out break-even output or sales.
3. Understanding the cost, volume, profit relationship.
4. Making inter-firm comparisons.
5. Forecasting profits.
6. Selecting the best product mix.
7. Enforcing cost control.

On the negative side, break-even analysis suffers from the following limitations:

1. It is very difficult if not impossible to segregate costs into fixed and variable components. Further, fixed costs do not always remain constant. They have a tendency to rise to some extent after production reaches a certain level. Likewise, variable costs do not always vary proportionately. Another false assumption is regarding the sales revenue, which does not always change proportionately. As we all know selling prices are often lowered down with increased production in an attempt to boost up sales revenue. The break-even analysis also does not take into account the changes in the stock position (it is assumed, erroneously though, that stock changes do not affect the income) and the conditions of growth and expansion in an organisation.
2. The application of break-even analysis to a multiproduct firm is very difficult. A lot of complicated calculations are involved.
3. The break-even point has only limited importance. At best it would help management to indulge in cost reduction in times of dull business. Normally, it is not the objective of business to break-even, because no business is carried on in order to break-even. Further the term BEP indicates precision or mathematical accuracy of the point. However, in actual practice, the precise break-even volume cannot be determined and it can only be in the nature of a rough estimate. Therefore, critics have pointed out that the term 'break-even area' should be used in place of BEP.
4. Break-even analysis is a short-run concept, and it has a limited application in the long range planning.

Despite these limitations, break-even analysis has some practical utility in that it helps management in profit planning. According to wheldon, if the limitations are accepted, and the chart is considered as being an instantaneous photograph of the present position and possible trends, there are some very important conclusions to be drawn from such a chart.

CASH BREAK-EVEN CHART

This chart is prepared to show the cash need of a concern. Fixed expenses are to be classified as those involving cash payments and those not involving cash payments like depreciation.

NOTES

As the cash break-even chart is designed to include only actual payments and not expenses incurred, any time lag in the payment of items included under variable costs must be taken into account. Equal care must be shown on the period of credit allowed to the debtors for the purpose of calculating the amount of cash to be received from them, during a particular period.

3.14 FORMULAS FOR BREAK EVEN ANALYSIS

1. Break-Even Point (Of Sales) = (Fixed Costs/ Contribution Per Unit) * Selling Price Per Unit
2. Break-Even Point (Of Sales) = Fixed Costs/ (P/V Ratio)
3. B.E.P. (Sales) = (Fixed Cost * Selling Price per Unit)/ (Selling Price per Unit Variable Cost per Unit)
4. B.E.P. (Sales) = (Fixed Cost * Selling Price per Unit)/ Contribution Per Unit
5. B.E.P. (Sales) = (Fixed Cost * Total Sales)/Total Contribution
6. B.E.P. (Sales) = Total Contribution/ PV Ratio
7. Break-Even Point = Fixed Costs/ Contribution Per Unit
8. B.E.P. (In Units) = Fixed Cost/ (Selling Price per Unit -Marginal Cost per Unit)
9. Sales Needed for a Desired Profit = (Fixed Cost + Desired Profit)/(P/V Ratio)
10. Total Contribution = Sales - Total Variable Cost
11. Total Contribution -Fixed Costs + Profit
12. Total Contribution = Sales * (P/V Ratio)
13. Total Contribution = Fixed Costs - Loss
14. Contribution Per Unit = Sales/No of Units sold
15. Contribution Per Unit = Selling Price Per Unit - Variable Cost Per Unit
16. Contribution Per Unit = Selling Price Per Unit * (P/V Ratio)
17. Total Variable Cost =Total Cost - Fixed Costs
18. Total Variable Cost = Sales -Total Contribution
19. Total Variable Cost = No of Units sold * Variable Cost Per Unit
20. Profit = Total Contribution Fixed Costs
21. Profit = Sales X P/V Ratio Fixed Costs
22. Profit = Sales Total Cost

EXAMPLE: Based on the following Information, find out the breakeven point, the sales needed for a profit of Rs. 6.00 per unit, if 4,00,000 units are sold at Rs. 6 per unit.

Units of Output 5,00,000

Fixed Costs Rs. 7,50,000

Variable Cost Per Unit Rs. 7

Selling Price Per Unit Rs. 5

Sol.

Break-Even Point (Of Units) = (Fixed Costs/ Contribution Per Unit)

=7,50,000/3= 2,50,000 Units

Break-Even Point (Of Sales) = (Fixed Costs/ Contribution Per Unit) Selling Price Per Unit

(7,50,000/3) * 5 = Rs. 12,50,000

Sales Needed for a Desired Profit = (Fixed Cost + Desired Profit)/ P/V Ratio

(7,50,000 + 6,00,000)/0.60 = Rs.22,50,000 or 4,50,000 Units

Profit On Sale of 4,00,000 Units at Rs.6 Per Unit

Sales = 4,00,000 Units = 4,00,000 * Rs.6 =Rs.24,00,000

Sales - Variable Cost = Contribution

24 Lakhs - (4 Lakhs * 2 Per Unit) = Rs.16,00,000

Profit = Total Contribution-Fixed Costs = 16,00,000 - 7,50,000 = Rs.8,50,000

Profit =Unit Sales * Contribution Per Unit-Fixed Cost

4 Lakhs * Rs.4=16 Lakhs - 7,50,000 = Rs.8,50,000

EXAMPLE: A company is considering a reduction in the price of its product by 10% because it is felt that such a step may lead to a greater volume of sales. It is anticipated that there will be no change in total fixed costs or variable costs per unit. The directors wish to maintain profit at the present level.

You are given the following information:

Sales (15,000Units)	Rs.3,00,000
Variable Cost	Rs.13 Per Unit
Fixed Cost	Rs. 60,000

From the above information, calculate P/V ratio and the amount of sales required to maintain profit at the present level after reduction of selling price by 10%.

Sol.

P/V Ratio = Contribution Per Unit/ Selling Price Per Unit

Selling Price Per Unit = Total Sales/ No of Units sold Rs.3,00,000/15,000 Units = Rs.20

Contribution Per Unit = Selling Price Per Unit - Variable Cost Per Unit = 20-13 =Rs.7

NOTES

P/V Ratio = Contribution Per Unit/ Selling Price Per Unit = 7/20 = 0.35 Or 35 %

After reduction of price by 10% it will be Rs.18 (original price per unit Rs.20).

Present profit level = (35% of 3,00,000)- 60,000= Rs.45,000

P/V ratio after price reduction

P/V Ratio = Contribution Per Unit/Selling, Price Per Unit = 5/18 = 0.2778 Or 27.78%

Sales Needed for a Desired Profit (Fixed Cost + Desired Profit)/ P/V Ratio

=(60,000+ 45,000)/ 0.2778= Rs. 1,78,000

EXAMPLE: From the following information, prepare a break-even chart Showing the break-even point.

Budget output.... 10,000 units Fixed expenses Rs.40,000

Selling price per unit Rs.20 Variable cost per unit.... Rs.15

Sol

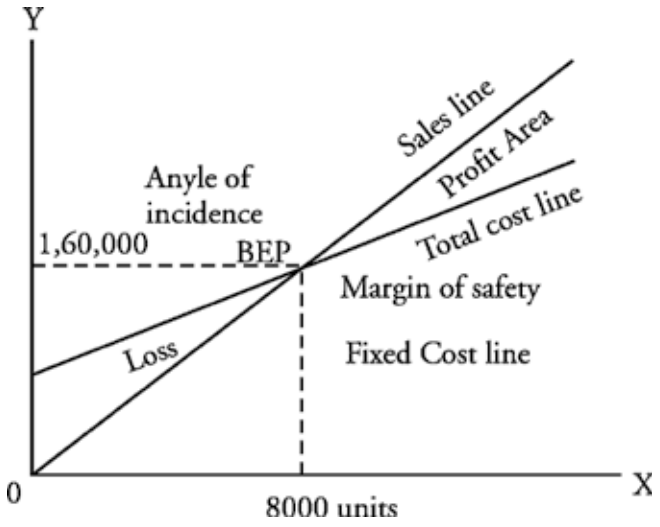
Total costs and sales at varying levels of output:

No of units	Fixed cost	Variable Cost	Total Cost	Sales (Revenue)	Total Profit
0	40,000	0	40,000	0	-40,000
1000	40,000	15000	55,000	20000	-35,000
2000	40,000	30000	70,000	40000	-30,000
3000	40,000	45000	85,000	60000	-25,000
4000	40,000	60000	100,000	80000	-20,000
5000	40,000	75000	115,000	100000	-15,000
6000	40,000	90000	130,000	120000	-10,000
7000	40,000	105000	145,000	140000	-5,000
8000	40,000	120000	160,000	160000	0
9000	40,000	135000	175,000	180000	5,000
10000	40,000	150000	190,000	200000	10,000

B.E.R is at 8,000 units, i.e., Rs.1,60,000

Margin of Safety = Sales-B.E. Volume Units = 10,000-8,000 =2,000 Units

Margin of Safety = Sales -B.E. Volume Sales = 2,00,000-1,60,000 =Rs.40,000



EXAMPLE

The following information is available in respect of Vishal Pvt ltd. for the budget period.

Sales	10,000 units at Rs.10 per unit.
Variable costs	Rs.4 per unit.
Fixed costs	Rs. 25,000 including depreciation of Rs. 4,000
Preference dividend to be paid	Rs. 3,000
Taxes to be paid	Rs. 6,000

It may be assumed that there are no lags in payment. Calculate cash break-even Point.

Cash Break-Even Point (Of Output) = Cash Fixed Costs/Cash Contribution Per Unit

Cash Fixed Costs = Fixed Costs + Preference dividend + Taxes - Depreciation

= 25,000+3,000+6,000- 4,000 = 30,000

Cash Contribution Per Unit = Selling Cost per unit - Variable cost per unit =10-4 = 6

Cash Break-Even Point (Of Output) = Cash Fixed Costs/Cash Contribution Per Unit =30,000/6 =5,000 Unit

Cash Break-Even Point (Of Sales) = 5,000 X 10 = Rs. 50,000

PROFIT VOLUME (P/V) RATIO:

This ratio indicates the contribution earned with respect to one rupee of sales. As such, it is expressed as

(Contribution/Sales) x 100

P/V ratio may also be expressed as: (Change in Profits/Change in Sales) * 100

NOTES 

EXAMPLE: Sales price is Rs. 10 per unit, variable cost is Rs. 6 perunit, and fixed costs are Rs. 300, we observe that for 100 and 150 units, P/V Ratio works out as:

	100 Units 150 Units	
	Rs.	Rs.
Sales	1,000	1,500
Variable cost	600	900
Contribution	400	600
Fixed cost	300	300
Profit	100	300
Hence, P/V Ratio is		
Contribution * 100=	400	X100 = OR 600 X 100 = 40%
Sales	1,000	1,500
Increase in Profits * 100 i.e.		200 X 100 = 40%
Increase in Sales		500

The fundamental property of P/V Ratio is that it remains constant at all the levels of activities, provided per unit sales price and variable cost remains constant. It should be noted that P/V Ratio remains unaffected by any variation in fixed costs though overall profits may change due to this variation.

EXAMPLE: Following details are available:

	Sales	Total Cost
	Rs.	Rs.
Period I	39,000	34,800
Period II	43,000	37,600

Calculate variable cost, fixed cost and contribution for each period.

Solution: As Sales - Total Cost = Profit, we know as below:

	Sales	Total Cost	Profit
	Rs.	Rs.	Rs.
Period I	39,000	34,800	4,200
Period II	43,000	37,600	5,400

As P/V Ratio = (Increase in Profits/Increase in Sales) X 100

= 5,400-4,200X100 = 1,200X100 = 30% 43,000-39,000 4,000

As Sales X P/V Ratio = Contribution,

For period I, Contribution = 39,000x30%= 11,700

For period II, Contribution = 43,000x30%= 12,900

As Sales - Contribution = Variable Cost, For period I, Variable Cost = 39,000 -11,700 = 27,300

For period II, Variable Cost = 43,000- 12,900 = 30,100

As Contribution - Profit = Fixed Cost,

For period 1, Fixed Cost= 11,700-4,200 = 7,500

For period II. Fixed Cost = 12,900 - 5,400 = 7,500

3.15 CHAPTER SUMMARY

- The Institute of Cost and Management Accountants, London, has defined Cost Accounting as "the application of costing and cost accounting principles, methods and techniques to the science, art and practice of cost control and the ascertainment of profitability as well as the presentation of information for the purpose of managerial decision-making."
- Direct Cost indicates that cost which can be identified with the individual cost centre. It consists of direct material cost, direct labour cost and direct expenses. It is also termed as Prime Cost.
- Indirect Cost indicates that cost which cannot be identified with the individual cost centre.
- Fixed cost indicates that portion of total cost which remains constant at all the levels of production, irrespective of any change in the later.
- Variable cost indicates that portion of the total cost which varies directly with the level of production.
- Opportunity cost is the return on the second best alternative foregone.
- Element of cost

  Material Cost = Direct Material + Indirect Material

  Labour Cost = Direct Labour + Indirect Labour

  Other Expenses = Direct Expenses + Indirect Expenses
- Cost Centre is defined as a location, person, or item of equipment (or a group of these) in or connected with an undertaking, in relation to which costs may be ascertained and used for the purpose of cost control.
- A big organization can increase the scale of production to reduce its average cost of production and it can sell at a lower price than the competitors or small firms. This is called economy of scale.

NOTES

- The marginal cost of production is the increase in Total cost as a result of producing one extra unit. It is the variable costs associated with the production of one more units.
- Cost-volume-profit analysis is a technique of analysis to study the effects of cost and volume variations on profit. It determines the probable profit at any level of activity. It helps in profit planning, preparation of flexible budgets, fixation of selling prices for products, etc. As the volume increases, the average fixed cost decreases, average cost also decreases and the profit increases.
- Break Even Point is a situation of no profit no loss. It means that at this stage, contribution is just enough to cover the fixed costs. The break-even point is generally depicted through the break-even chart. The chart shows the profitability of an undertaking at various levels of activity. It brings out the relationship between cost, volume and profit clearly. On the negative side, the limitations of break-even analysis are: difficulty in segregating costs into fixed and variable components, difficulty in applying the technique to multi-product firms, short-term orientation of the concept etc.

3.16 KEYWORDS

Cost	The amount of expenditure incurred on or attributable to a specified article, product or activity.
Cost Accounting	"the application of costing and cost accounting principles, methods and techniques to the science, art and practice of cost control and the ascertainment of profitability as well as the presentation of information for the purpose of managerial decision-making."
Cost Centre	A location, person, or item of equipment (or a group of these) in or connected with an undertaking, in relation to which costs may be ascertained and used for the purpose of cost control.
Cost of Goods Sold	It includes (i) cost of materials; (ii) labour and factory overheads;
Cost of Sales	Cost of goods sold plus selling and administrative expenses.
Cost Sheet	The various elements/components of the cost presented in the form of a statement for ascertaining the cost per unit
Direct Cost	That cost which can be identified with the individual cost centre.
Fixed cost	That portion of total cost which remains constant at all the levels of production, irrespective of any change in the later.
Indirect Cost	That cost which cannot be identified with the individual cost centre.

Inventory **Inventory**	All the materials, parts, suppliers, expenses and in process or finished products recorded on the books by an organization and kept in its stocks, warehouses or plant for some period of time.
Inventory control	The technique of maintaining the size of the inventory at some desired level keeping in view the best economic interest of an organization.
Opportunity cost	The return on the second best alternative foregone.
Overheads	Indirect costs.
Time booking	The time spent by him on various jobs/work orders.
Time Keeping	The process of recording the attendance time of the workers.
Variable cost	That portion of the total cost which varies directly with the level of production.
Break Even Point	A situation of no profit no loss
Cost-volume-profit analysis	A technique of analysis to study the effects of cost and volume variations on profit.
Economy of scale	increasing the scale of production to reduce average cost of production
Margin of Safety	Sales beyond Break Even Point.
Marginal cost	The increase in Total cost as a result of producing one extra unit.
Marginal Profit	The increase in Total Profit as a result of selling one extra unit.
Marginal Revenue	The increase in Total Revenue as a result of selling one extra unit.
Profit Volume (P/V) Ratio:	This ratio indicates the contribution earned with respect to one rupee of sales.

3.17 REVIEW QUESTIONS

SHORT ANSWER TYPE QUESTIONS

1. **What is a cost centre?**
2. **What are the elements of cost?**
3. **Describe the methods of recording attendance of Labour.**
4. **What is Marginal Cost? What is the utility of Marginal Cost?**
5. **What is Break Even Point? How is it calculated?**

NOTES

LONG ANSWER TYPE QUESTIONS

1. **Explain the importance of Cost Accounting.**
2. **Explain the features of Cost Accounting.**
3. **Explain the different Types of costs.**
4. **Explain the concept of Marginal Revenue and Marginal Profit.**
5. **Explain the concept of Cost, Volume and Profit relationship with example.**

3.18 MULTIPLE CHOICE QUESTIONS

1. **The cost which can be identified with the individual cost centre is called_____.**
   a. Direct Cost
   b. Indirect Cost
   c. Marginal Cost
   d. Selling Price
2. **The amount of expenditure incurred on or attributable to a specified article, product or activity is known as_____.**
   a. Deduction
   b. Selling Price
   c. Cost
   d. Price
3. **The _____ point is generally depicted through the break-even chart.**
   a. Marginal cost
   b. Break-even
   c. Margin-even
   d. Cost-even
4. **Cost-volume-profit analysis is a technique of analysis to study the effects of cost and volume variations on_____.**
   a. Loss
   b. Profit
   c. Cost
   d. Deduction
5. **To decide the selling price a firm has to know its _____price.**
   a. Cost
   b. Direct
   c. Profit
   d. Sum
6. **The term "overheads" means_____.**
   a. Direct costs

b. Indirect costs

c. Costs

d. General cost

7. **Cash break-even chart is prepared to show the ____need of a concern.**

a. Overcome

b. Credit

c. Cash

d. Demand

8. **The _____is a simple tool employed to graphically represent accounting data.**

a. Break-even analysis

b. Break-odd analysis

c. Marginal Costing

d. Economic Analysis

9. **The marginal Profit is the _____ in Total Profit as a result of selling one extra unit.**

a. Decrease

b. Increase

c. Change

d. Gravity

10. **The technique of _____is of immense use to the management in taking various decisions.**

a. Marginal costing

b. Delegation Costing

c. Economic Change

d. Direct Costing

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UNIT IV

FINANCIAL MANAGEMENT

STRUCTURE

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4.1 LEARNING OBJECTIVE

After completing this unit, you will be able to:

- Understand the Meaning and Importance of Financial Management.
- Know the Duties and Responsibilities of Finance Officer.
- Explain the Theories of Capitalisation.
- List out the Sources of finance.
- State the features of Share and Debt Capital.
- Explain the meaning of Capital Structure.
- Theories of Capital Structure.
- Understand the Cost of Capital and calculate the Weighted Average Cost of Capital.
- Explain the Concept of Leverages.
- Explain the concept of Working capital and its management.
- State the factors affecting working capital requirement.
- Identify the various sources of finance for working capital.
- Define the motives of holding cash.
- Assess know the method for estimation of cash requirements.
- State the principles of cash management.
- Evaluate the techniques employed for Cash Management.

4.2 INTRODUCTION

A business is an activity which is carried on with the intention of earning profits, production, marketing and finance are the key operational areas in case are of a manufacturing organization, out of which finance, is the most crucial one. This is so, as the functions of production and marketing are related with the function of finance. If the decisions relating to money or funds fail, it may result into the failure of the business organisation as a whole. Hence, it is utmost important to take the proper financial decisions and that too at a proper point of time.

The reasons for finance function being a highly centralised function are very obvious.

1. Financial decisions are the most crucial ones on which survival or failure of the organisation depends.
2. Financial decisions affect the solvency position of the organisation and a wrong decision in this area may land the organisation into crisis.
3. The organisation may gain economies of centralization in the form of reduced cost of raising the funds, acquisition of fixed assets at the competitive prices etc.

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Profit Maximization: As a basic principle, any business activity aims at earning the profits. According to this principle, all the functions of the business will have the profit as the main objective. Similarly, the finance function will also have the profits as the main objective.

Wealth Maximization: Due to the limitations attached with the profit maximization as an objective of the finance function, it is no more accepted as the basic objective. As against it, it is now accepted that the objective of the business should be to maximize its wealth and value of the shares of the company

The value of an asset is judged not in terms of its cost but in terms of the benefit it produces. Similarly, the value of a course of action is judged in terms of the benefits it produces less the cost of undertaking it.

4.3 MEANING, SCOPE AND IMPORTANCE OF FINANCIAL MANAGEMENT

R.C. Osborn: The finance function is the process of acquiring and utilizing funds of a business.

Bonneville and Dewey: Financing consists of the raising, providing, managing of all the money, capital or funds of any kind to be used in connection with the business.

Prather and Wert: Business finance deals primarily with raising, administering and disbursing funds by privately owned business units operating in non-financial fields of industry.

Financial Management is the function of Assessment, Acquisition, Allocation of capital and Appropriation of profit and Analysis of performance.

According to the modern approach, the function of finance is concerned with the following three types of decisions -

- Financing Decisions
- Investment Decisions
- Dividend Policy Decisions

FINANCING DECISIONS

Financing decisions are the decisions regarding the process of raising the funds. This function of finance is concerned with providing the answers to the various questions like -

a. What should be the amount of funds to be raised? In simple words, the amount of funds to be raised by the organisation should not be more or less than what is required as both the situations involve the adverse consequences.

b. What arc the various sources available to the organisation for raising the required amount of funds? For the purpose of raising the funds, the organisation can go for internal source, as well as external sources.

c. What should the proportion in which the internal and external sources should be used by the organisation?

d. If the organisation particularly the corporate form of organisation, wants to raise the funds from different sources, it is required to comply with various legal and procedural formalities. Earlier, these legal and procedural formalities were prescribed by Controller of Capital Issues (CCI). Since 1992, after the abolition of the office of CCI, these formalities are prescribed and regulated by Securities Exchange Board of India (SEBI). Though the intention of this subject is to consider the SEBI regulations and guidelines in details.

INVESTMENT DECISIONS

Investment decision It relates to as how the funds of a firm are to be invested into different assets, so that the firm is able to earn highest possible return for the investors. Investment decision can be long-term, also known as capital budgeting where the funds are commited into long-term basis. Short-term investment decision also known as working capital decision and it is concerned with the levels of cash, inventories and debtors. Investment decision can be long-term and short-term.

Companies own a variety of assets that are used for different purposes. These assets also have different time frames in which they are held by a company. Companies categorize the assets they own and two of the main asset categories are current assets and fixed assets; both are listed on the balance sheet.

1. **Fixed Assets:** Fixed Assets indicate the infrastructural facilities and properties required by the organisation. Fixed Assets are the assets which bring the returns to the organisation over a longer span of time. The investment decisions in these types of assets are technically referred to as "Capital Budgeting Decisions." Capital Budgeting decisions are concerned with the answers to the questions like —
   a. How the fixed assets or proposals or projects should be selected to make the investment in? What are the various methods available to evaluate the investment proposals in the fixed assets?
   b. How the decisions regarding the investment in fixed assets or proposals or projects should be made in the situations of risk and uncertainty?
2. **Current Assets**: Current Assets are the assets which get generated during the course of operations and are capable of getting converted in the form of cash or getting utilized within a short span of time of one year. Current Assets keep on changing the form and shape very frequently. The investment decisions in these types of assets are technically referred to as "Working Capital Management." Working Capital Management decisions are concerned with the answers to the questions like-
   a. What is the meaning of working capital management? What are the objectives of working capital management?
   b. Why the need for working capital arises?
   c. What are the factors affecting the requirement of working capital?

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d. How to quantify the requirement of working capital?

e. What are the sources available for financing the requirement of working capital?

f. Working capital management is concerned with the management of current assets on overall basis as well as on individual basis. In practical situations, current assets may be found in the form of cash and bank balances, receivables and inventory. Working capital management is concerned with the management of these individual components of current assets as well.

DIVIDEND POLICY DECISIONS

Profits earned by the organisation belong to the owners of the organisation. In case of the corporate form of organisation, shareholders are the owners and they are entitled to receive the profits in the form of dividend. However, there is no specific law or statute which specifies as to how much amount of profits should be distributed by way of dividend and how much amount of profits should be retained in the business. The alternatives available to the organisation to distribute the profits in the form of dividend on one hand and retention of profits in the business have reciprocal relationship with each other. If the dividends paid are higher, retained profits are less and vice versa. If the organisation pays higher dividends, shareholders are very happy as they get more recurring income and the company may be able to gain the confidence of the shareholders. However, the organisation can be in financial problems as payment of dividend results into the withdrawal of profits from the business. On the other hand, if the organisation pays less dividend, the organisation may be in a favourable situation. However, the shareholders are likely to be offended. As such, the organisation is required to take the decisions regarding the payment of dividend in such a way that neither the shareholders are offended nor the organization is in financial problems. As such, dividend policy decisions are the strategic financial decisions and are concerned with the answers to the questions like –

1. What are the forms in which the dividends can be paid to the shareholders?
2. What are the legal and procedural formalities to be completed while paying the dividend in different forms?

4.4 DUTIES AND RESPONSIBILITIES OF FINANCE OFFICER

On the basis of the scope of the finance function, which has already been discussed, the various duties and responsibilities which a finance executive has to fulfil can be classified as below:

- Recurring Duties
- Non-recurring Duties

RECURRING DUTIES

1. **Deciding the Financial Needs:** In case of a newly started or growing concern, the basic duty of the finance executive is to prepare the financial plan for the company. Financial plan decides in advance the quantum of funds required, their duration,

etc. The funds may be needed by the company for initial promotional expenditure, fixed capital, working capital or for dividend distribution. The finance executive should assess this need of funds properly.

2. **Raising the Funds Required:** The finance executive has to choose the sources of funds to fulfill financial needs. The sources may be in the form of issue of shares, debentures, borrowing from financial institutions or general public, lease financing etc. The finance executive has also to decide the proportion in which the various sources should be raised. For this, he may have to keep in mind basic three principles of cost, risk and control. If the company decides to go in for issue of securities say in the form of shares or debentures, he has to arrange for the underwriting or listing of the same. If the company decides to go in for borrowed capital, he has to negotiate with the lenders of the funds.
3. **Allocation of funds:** The financial executive has to ensure proper allocation of funds. He can allocate the funds basically for two purposes.
   a. **Fixed Assets Management:** He has to decide in which fixed assets the company should invest the funds. He has to ensure that the fixed assets acquired or to be acquired satisfy the present as well as future needs of the company. He has to ensure that the funds invested in the fixed assets justify the investments in terms of the expected cash flows generated by them in future. If there are more than one proposals for making the investments in fixed assets, the finance executive has to decide in which proposal, the company should invest the funds. For this purpose, he may be required to take the help of various techniques of capital budgeting to evaluate the various proposals,
   b. **Working Capital Management**: The finance executive has to ensure that sufficient funds are made available for investing in current assets as it is the lifeblood of the business activity. Non-availability of funds to invest in current assets in the form of say cash, receivable, inventory etc. may halt the business operations.
4. **Allocation of Income:** Allocation of the income of the company is the exclusive responsibility of the finance executive. For this purpose, basically the income may be distributed among the shareholders by way of dividend or it may be retained in the business for future purpose like expansion.
5. **Control of Funds:** The finance executive is responsible to control the use of funds committed in the business so as to ensure that cash is flowing as per the plan and if there is any deviation between estimates and plans, proper corrective action may be taken in the light of financial position of the company.
6. **Evaluation of Performance:** The financial executive may be required to evaluate and interpret the financial statements, financial position and operations of the company. For this purpose, he may be required to ensure that proper books and records are maintained in proper way so that whatever data is required of this purpose is available in time.
7. **Corporate Taxation:** As the company is a separate legal entity, it is subjected to the various direct and indirect taxes like income tax, wealth tax, excise and customs

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duty, sales tax etc. The finance executive may be expected to deal with the various tax planning and tax saving devices in order to minimize the tax liability.

8. **Other Duties**: In addition to all the above duties the financial executive may be required to prepare annual accounts, prepare and present financial reports to top management, carrying out internal audit, get done statutory and tax audit, safeguarding securities and assets of company by properly insuring them etc.

NON-RECURRING DUTIES

The non-recurring duties of the finance executive may involve preparation of financial plan at the time of company promotion, financial readjustments in times of liquidity crisis, valuation of the enterprise at the time of acquisition and merger thereof etc.

4.5 THEORIES OF CAPITALISATION

The assessment of the funds needed by the company should be done in such a way that the total amount of funds available should be neither too large nor too less. As such, one of the most important financial decisions becomes the determination of the amount which the company should have at its disposal. This is capitalisation.

Thus the term capitalisation means total amount of long term funds available to the company. In the words of Dewing "Capitalisation includes capital stock and debt". Therefore, capitalisation includes shares and debentures issued by the company and also the long-term loans taken from the financial institutions. The question arises regarding the inclusion of non-distributed profit in the capitalisation.

There are two important theories which act as guidelines for determining the amount of capitalisation.

1. **Cost Theory:** Cost theory of capitalisation considers the amount of capitalisation on the basis of cost of various assets required to set up the organisation. It gives more stress on cunent outlays than on the requirements which are necessary to accommodate the investment on a going concern basis. The company may need the funds to invest in fixed and current assets and also to meet promotional and organisational expenses. The total sum required for all these purposes gives the amount of capitalisation. The cost theory of capitalisation seems to be ideal as it considers the actual funds to acquire various assets, but it does not consider the earnings capacity of these assets. If the amount of capitalisation arrived at on this basis includes the cost of assets acquired at inflated costs or the cost of idle and obsolete assets, the earnings are bound to be low which will not be able to pay favourable return on the cost of assets and this will result into over-capitalisation. Similarly, cost theory of capitalisation may not be useful in case of company with irregular earnings.
2. **Earnings Theory:** Earnings theory of capitalisation considers the amount of capitalisation on the basis of expected future earnings of the company, by capitalising the future earnings at the appropriate capitalisation rate. Thus, for

determining the amount of capitalisation, it is necessary to take the following steps:

a. **To decide future earnings:** Estimations of future earnings may be comparatively an easy task in case of established concerns as there can be some basis of past data. In case of new concerns, estimating the future earnings is a difficult task. While estimating future earnings, following factors should be kept in mind.

   - Smaller the period, more accurate will be the estimations of future earnings. While estimating future earnings on the basis of past earnings, weighted average of past earnings may be considered giving maximum weight age to recent earnings.
   - While considering future earnings on the basis of past earning, care should be taken to adjust the earnings on account of non-recurring factors. Moreover, adjustments should be made for known factors in future.
   - In case of new concerns, the estimations of future earnings depend upon correct estimation of future sales (which in turn should be based upon proper sale forecast) and future costs. Allowance should be made for contingencies.

b. **To determine Capitalisation rate:** This is the trickiest and delicate issue and is entirely a subjective concept. The concepts of capitalisation rate may take any of the following forms:

   - It is the rate of return that is required to attract investors to the particular organisation.
   - It is the cost of capital.
   - It is the rate of earnings of the similar organisations in the same industry.

c. **To capitalise the future earnings at the decided rate of Capitalisation:** Following example will illustrate the working of earnings theory of capitalisation.

EXAMPLE: Expected future earnings of A Ltd. are Rs. 3,00,000. Find out the amount of capitalisation if rate of return earned by similar types of companies is 15%.

Amount of capitalisation = Rs. 3,00,000 x 100/15 = Rs. 20,00,000.

Expected future Profit after Tax of a company is Rs.2.5 lacs. Capitalisation Rate is 10%. The ideal capitalisation of the company will be, 2,50,000 x 100/10 = Rs. 25,00,000.

The earnings theory of capitalisation is ideal in the sense that it considers earnings capacity of the organisation. But it has limitations in the sense that it involves the estimation of two variables i.e. future earnings and capitalisation rate, which are too difficult to accertain.

As such, in case of established concerns, earnings theory may be useful, whereas new concerns may prefer cost theory to decide the amount of capitalisation.

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OVERCAPITALISATION

In simple terms, overcapitalisation means existence of excess capital as compared to the level of activity and requirements. For example, if a company is earning a profit of Rs. 50,000 and the normal rate of return applicable for the same industry is 10%, it means that the amount of shares and debentures should be Rs. 5,00,000. If the amount of shares and debentures issued by the company is more than Rs. 500,000, then the company will be said to be overcapitalised.

The term overcapitalisation should not be taken to mean excess funds. There can be situation of overcapitalisation; still the company may not be having sufficient funds. Similarly, the company may be having more funds and still may be having a low earning capacity thus resulting into overcapitalisation.

CAUSES OF OVERCAPITALISATION

The situation of overcapitalisation may arise due to various reasons as stated below:

1. The assets might have been purchased during the inflationary situations. As such the real value of the assets is less than the book value of the assets.
2. Adequate provision might not have been made for depreciation on the assets. As such, the real value of the assets is less than the book value of the assets.
3. The company might have spent huge amounts during its formation stage or might have spent huge amounts for the purchase of intangible assets like goodwill, patents, trademarks, copyrights and designs etc. As a result, the earning capacity of the company may be adversely affected.
4. The requirement of funds might not have been properly planned by the company. As a result, the company may have shortage of capital and to overcome the situation of shortage of capital, the company may borrow the funds at unremunerative rates of interest, which in its turn will reduce the earnings of the company.
5. The company might have followed the lenient dividend policy without bothering much about building up the reserves. As a result, the retained profits of the company may be adversely affected.
6. If there is a very high rate of taxation for companies, the company may not be having sufficient funds left with it for modernisation or renovation programs. As such, the real value and the earning capacity of the assets will be lower.
7. There may be many instances, where the management of the company may raise large amounts by issuing securities, irrespective of the fact whether they are really required or not, in order to take benefit of favourable capital market conditions. As a result, only the liability of the company increases but not the earning capacity.
8. According to the earnings theory of capitalisation, the capitalisation is the amount of earnings capitalised at a representative rate of return. As such, if the capitalisation rate is wrong, the amount of capitalisation will be wrong, in such a way that lower the rate of capitalisation, higher will be amount of capitalisation.

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EFFECTS OF OVERCAPITALIZATION

1. **On Company:** The real value of the business and its earning capacity reduces with the adverse effect on market value of shares. Credit standing of the company in the market falls down and it is difficult to raise further capital. The temporary means like lower amount of depreciation and maintenance charges are followed to improve the earnings which aggravates the situation further.
2. **On Shareholders:** This is the worst affected class. The shares held by them are not having any backing of tangible assets. Due to the reduced market values, the shares become non-transferable or are required to be transferred at extremely low prices
3. **On Consumers:** To overcome the situation of overcapitalisation and to improve the earnings, the company may be tempted of increase the selling price, more particular in monopoly conditions. Due to this, the quality of the products may also be affected.
4. **On Society at Large:** The increasing selling prices and reducing quality can't be continued for a very long time due to the competition existing in the market. The situation like this means losing the backing of the shareholders as well as the consumers. As a result, the company is dragged towards the winding up which ultimately affects the society at large in the adverse way in terms of lost industrial production, unemployment generated, unrest among the workers as a part of society etc.

REMEDIES AVAILABLE

In order to overcome the situation of overcapitalization, the company may resort to any of the following remedial measures:

1. To reduce the debts by repaying them. But the debts should be repaid out of the own earnings of the company. There is no point in repaying the debts out of the fresh issue of shares or debentures, as it does not reduce the amount of capitalization.
2. To redeem the preference shares if they carry too high rate of dividend.
3. The persons holding the debentures may be persuaded to accept new debentures which carry lower rate of interest.
4. The par value of the equity shares may be reduced but this also will have to be done only after taking the shareholders into confidence.
5. The number of equity shares may be reduced but this also will have to be done only after taking the shareholders into confidence.

UNDERCAPITALISATION

As against the indication of overcapitalization, the situation of undercapitalisation indicates the excess of real worth of the assets over the aggregate of shares and debentures outstanding. Thus, if a company succeeds in earning abnormally high income continuously for a very long period of time, it indicates symptoms of undercapitalisation. As such, undercapitalisation is an indication of effective and proper utilization of funds employed in the business. It also indicates sound financial position and good management of the

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company. Hence it is said that "undercapitalisation is not an economic problem but a problem in adjusting capital structure".

Causes of Undercapitalisation:

The situation of undercapitalisation may arise due to various reasons as stated below:

1. Sometimes, it may so happen that while deciding the number of shares and debentures to be issued, the future earnings may be underestimated. As a result, if the actual earnings turn out to be higher, capitalisation of these earnings may result into undercapitalisation. Similarly, use of low rate of capitalisation for capitalising the future earnings may also result in undercapitalisation.
2. There may be cases where the earnings of the business come as a windfall. This may arise during transition from depression to boom. Thus, while recovering from depression, the companies may find their earnings too high to result into the state of undercapitalisation.
3. Sometimes, the company may follow too conservative policy for paying the dividends keeping aside more and more profit for making further additions and investments. As a result, the company may find itself to be in too high profits and thus undercapitalisation.
4. The company may be in the position to improve its efficiency through constant modernisation programs financed out of its own savings. As such the earnings capacity.
5. Of the company may increase to such an extent that the real value of the assets is much more than the book value which results into the state of undercapitalisation.

EFFECTS OF UNDERCAPITALISATION

1. **On Company:** Financial stability and solvency of the company is not affected due to undercapitalisation, but it still affects the company adversely.
   a. As earnings per share ratio is very high, it increases the competition unduly by creating a feeling that the line of business is very lucrative.
   b. Increasing amounts of profits increases the tax liability of the company.
   c. Marketability of the shares of the company gets restricted due to very high market prices of shares.
   d. Very high profitability of the company induces the employees to demand increase in wages, reduced working hours, more welfare schemes and more social amenities.
   e. Very high profitability of the company creates a feeling among the customers that the company is charging very high prices for its products. They try to bring pressure on the company for reducing the prices of the product.
   f. Increasing profitability coupled with unrest among the employees as well as consumers increases the possibility of Government control and intervention over such companies. This proves to be quite embarrassing for the company.

2. **On Shareholders:** Generally, the shareholders of an undercapitalised concerns are benefited. Firstly, they get a very high dividend income regularly. Due to the increasing share prices, the investment of shareholders in the company appreciates considerably which can be encashed at any time. Secondly, in times of need, the shareholders may get loans on the security of these shares on easy terms due to high credit standing of the company in market. However, the shareholders of the undercapitalised concerns may suffer in the sense that the market for the shares is limited due to very high market prices of the shares.
3. **On Society:** The effects of undercapitalisation on the society as a whole may not necessarily be adverse ones. It may encourage new enterpreneurs to start new ventures or existing ones to expand. This may increase the industrial production and reduce the unemployment problems. The consumers may get variety of products at the competitive prices.

However, society may not be benefited if the state of undercapitalisation is not taken into right spirit. If the feeling is developed among the workers and consumers that they are being exploited due to ever-increasing profitability of the undercapitalised company, it may disturb not only the company itself but also the society as a whole. Possibility of Government intervention and introduction of various control measures (say in the form of price control, dividend ceiling and dividend freeze) increases.

REMEDIES AVAILABLE

The main indications about existence of the situation of undercapitalisation is the ever-increasing amount of earnings per share. If the situation of undercapitalisation is to be resolved, the company can take any of the following two measures in order to reduce the amount of earnings per share.

1. **Issue of Bonus Shares:** If the company has sufficient amount of reserves and surplus in hand, whole or a part of reserves and surplus may be capitalised by way of bonus shares. As a result, number of shares as well as amount of share capital will increase and amount of reserves and surplus will be reduced. It should be noted that it will affect neither the amount of capitalisation nor the total income of the shareholders. But it will reduce the amount of earnings per share.

   For example, suppose that the present capitalisation of the company comprise of Equity Share Capital of Rs. 1,00,000 (divided into 1000 Equity Shares of Rs. 100/- each) and reserves of Rs. 75,000. If the present earnings are Rs. 50,000, the present earnings per share will Rs. 50 i.e. Rs. 50,000/1000 equity shares. The company decides to issue 500 equity shares of Rs. 100/- each as bonus shares. As such, the equity share capital will increase to Rs. 150,000 and reserves will reduce to Rs. 25,000. The earnings of the company will be considered against total of 1500 equity shares and as such, earnings per share will reduce to Rs. 33.33 i.e. Rs. 50,000/1500 Equity Shares.
2. **Splitting the Shares:** To overcome the situation of undercapitalisation, the company may decide to spilt the shares in order to spread the earnings over a greater number of shares so that the earnings per share may be reduced.

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WATERED STOCK/WATERED CAPITAL

When share capital is not represented by the assets of equal value, the situation may mean introduction of water in the capital or watered capital.

This situation may arise due to following reasons:

1. The services of the promoters are valued highly and they are paid usually in the form of shares of the company. As such, share capital is increased but no assets are created.
2. Sometimes, the company pays higher price to the vendors of the assets transferred. i.e., the price which is more than the worth of the assets.

4.6 SOURCES OF FINANCE

The various sources from which a company may meet its long term and medium-term requirement of funds are discussed under the following headings:

- Shares
- Debentures
- Term Loans
- Public Deposits
- Leasing and Hire Purchase
- Retained Earnings

4.7 SHARE CAPITAL

A share indicates the smallest unit into which the overall requirement of capital of a company is subdivided. For example, If the capital required by a company is Rs. 10 Crores, it can be subdivided into 1 crore smaller units called as "Shares", each one of the units having the value of Rs. 10 each, which in technical words is referred to as "Face Value" or "Nominal Value". In the Indian circumstances, the Face Value or Nominal Value can be decided by the company on its own. Generally, found face value or nominal value is Rs. 10 or Rs. 100 each share.

In the Indian circumstances, a company can raise the long term funds by issuing two types of shares.

- Equity Shares
- Preference Shares

EQUITY SHARES

These are the comer stones of the financial structure of the company. On the strength of these shares, the company procures other sources of capital. Equity Shares as a source of long term funds for the company has the following characteristic features:

1. Investors in the equity shares are the real owners of the company. As such, the investors in equity shares are entitled to the profits earned by the company or the losses incurred by the company.
2. Funds raised by the company by way of equity shares are available on permanent basis. In other words, funds raised by the company by way of equity shares are not required to be repaid by the company during the lifetime of the company. They are required to be repaid only at the time of closing down of the company i.e. winding up of the company.
3. Funds raised by the company by way of equity shares are available to the company on unsecured basis i.e. the company does not offer any of its assets by way of security to the investors in equity shares.
4. Return which the company pays on equity shares is in the form of dividend. The rate of dividend is not fixed. It generally depends upon the profits earned by the company. However, a profit making company is under no obligation to pay dividend on equity shares.
5. Equity shares as a source of raising the long term funds is a risk free source for the company, as the company does not commit anything on equity shares.
6. Equity shares as an investment is very risky for the investors. As such, the investors are granted the voting rights. By exercising the voting rights, the investors can participate in the affairs regarding the business of the company. These voting rights are generally proportionate voting rights, in the sense the voting rights of the investors are in proportion to their investment on the overall capital of the company. However, it should be noted that due to some recent amendments to the companies Act, 1956, it may be possible for the companies to issue the equity shares with disproportionate voting rights.
7. Equity shareholders may not be able to compel the company to pay the dividend, but they enjoy the right to maintain the proportionate interest in profits, assets and control of the company. As such, it the company wants to issue additional equity shares, it is under legal obligation to offer these equity shares to the existing shareholders first, before going to the open market as a general offer. This right of equity shareholders is called "Pre-emptive Right".
8. In financial terms, equity shares as a source of raising the funds is a costly source available to the company. The reasons for this will be discussed in the following paragraphs.

ADVANTAGES OF EQUITY SHARES

1. **To the Company:** While issuing the equity shares, the company does not accept any obligation of any type. The company neither offers any security to the investors in the form of assets of the company nor commits the repayment of these shares during the life time of the company nor commits the payment of any dividend to the shareholders. This is a total risk free source of capital for the company.

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2. **To the investors:**
    a. As per the law, the liability of the equity shareholders is restricted only to the extent of face value of the shares purchased by the investors. The personal properties of the investors are not at stake even if the company fails to fulfil its contractual obligations.
    b. Possibility of getting higher returns is always there in case of equity shares. The investors can gain from equity shares in two forms. One, the regular dividend paid by the company in the form of cash or by way of bonus shares and Second, the capital appreciation received by the investors by selling the equity shares in the secondary market i.e. stock exchanges. As such, equity shares are a good investment attracting the risk taking investors.

DISADVANTAGES OF EQUITY SHARES

1. As the investors in equity shares enjoy the voting powers to control the affairs of the company, the management of the company is always under constant danger of getting interfered and disturbed in the regular administration.
2. The cost associated with the equity shares is on the higher side as compared to the borrowed capital. By issuing more and more equity shares, the company looses the cost advantage.
3. Many categories of investors i.e. institutional investors may not be able to invest in the equity shares due to various statutory restrictions.
4. The excessive issue of equity shares may result in over capitalization to be realized in future.

PREFERENCE SHARES

These are the shares which enjoy preferential treatment as compared to the equity shares in respect of the following factors -

- Unlike in case of equity shares, the preference shares carry the dividend at a fixed rate which is payable even before any dividend is paid on equity shares.
- In the case of winding up of the company, preference shareholders are paid back their investment even before the investment of equity shareholders is paid off.

Preference Shares as a source of funds for the company involves the following characteristic features-

1. Investors in preference shares are not the absolute owners of the company.
2. Funds raised by the company by way of preference shares are required to be repaid during the existence of the company. As per the provisions of Section 80 of the Companies Act, the company can issue the preference shares maximum for the duration of 20 years. As such, unlike equity shares, preference share is not a permanent capital available for the company.
3. Like in case of equity shares, funds raised by the company by way of preference shares are available to the company on unsecured basis i.e. the company does not

offer any of its assets by way of security to the investors in preference shares. Return which the company pays on preference shares is also in the form of dividend which is payable by the company out of the profits earned. However, unlike in case of equity shares, the rate of dividend is prefixed and recommunicated to the investors.

4. As compared to equity shares, risk on the part of company is more in case of preference shares.
5. Preference shares as an investment is comparatively less risky for the investors. As such, generally, preference shares do not carry any voting rights and hence they do not have any say in controlling the affairs of the company. However, Companies Act, 1956 provides for voting rights to preference shareholders in the following circumstances.
   a. If any resolution directly affecting the rights of the preference shareholders is discussed by the equity shareholders (For example, winding up of the company or reduction of share capital etc.), the preference shareholders can vote on such resolutions.
   b. If the dividend has not been paid on the preference shares, in case of cumulative preference shares for an aggregate period of two years and in case of non- cumulative preference shares, either for a period of two consecutive years or for an aggregate period of three years out of the six preceding years, then the preference shareholders can vote on all the matters placed before the company in the meeting of the equity shareholders.

TYPES OF PREFERENCE SHARES

If the company wants to issue the preference shares, they can be of different varieties.

1. **Convertible Vs. Non-convertible:** Convertible Preference Shares are those which can be converted in the equity shares at a later date, the terms of conversion (i.e. when the conversion will take place, at what rate it will take place etc.) being known to the investors in the beginning only. Non-convertible Preference Shares are those which cannot be converted in the form of equity shares. They are issued as preference shares and they remain the preference shares.
2. **Cumulative Vs. Non-cumulative:** Preference Shares are to be paid dividend at a fixed rate. However, dividend is payable only if there are profits. The question arises as to what happens if the company is unable to pay dividend as there are no profits earned by the company. It depends upon the types of preference shares. If the preference shares are cumulative preference shares and the company is unable to pay the dividend in a certain year due to non-availability of profits, the arrears of dividend go on accumulating till the company earns the profits and once the company earns the profits, the arrears of preference dividend are required to be paid first, then only the dividend can be paid on equity shares. If the preference shares are non-cumulative preference shares and the company is unable to pay the dividend in a certain year due to non-availability of profits, the arrears of preference dividend do not accumulate. The dividend lapses in the year of loss.

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RETAINED EARNINGS

Retained earnings or ploughed back profits are one of the best source of raising long term funds for the company. Retained earnings are ploughed back profits which are retained in the business after distributing dividends. It indicates that whatever profits are earned by the company are not distributed by it by way of dividend but are kept aside for being used in future for expansion or other purposes. If the company follows a regular policy of ploughing back of profits i.e. keeping aside profits without distributing them, the shareholders may resent this policy. As such, while deciding the amount of profits to be retained, the company has to be very careful, about its consequences on the expectations of shareholders and also on the prices of the shares.

4.8 DEBT CAPITAL

Debt Capital means the long term loans taken from Banks or other institutions or general public repayable after one year. They carry fixed rate of interest.

Important sources of Debt Capital are Debentures, Loans from Banks, Public Deposits, inter corporate borrowings, deferred tax liabilities, leasing finance, Hire Purchase etc.

DEBENTURES

In simple words, Debenture means a document containing an acknowledgement of indebtedness issued by a company and giving an undertaking to repay the debt at a specified date or at the option of the company and in the meantime to pay the interest at a fixed rate and at the intervals stated in the debenture Deed.

The above description of debentures indicates the following characteristic features of debentures.

1. Investors who invest in the debentures of the company are not the owners of the company. They are the creditors of the company or in other words, the company borrows the money from them.
2. Funds raised by the company by way of debentures are required to be repaid during the life time of the company at the time stipulated by the company. As such, debentures are not a source of permanent capital. Debentures can be considered to be a long term source.
3. In practical circumstances, debentures are generally secured i.e. the company offers some of the assets as security to the investors in debentures.
4. Return paid by the company is in the form of interest. Rate of interest is predetermined, but the same can be freely decided by the company. The interest on debenture is payable even if the company does not earn the profits.
5. Debentures as a source of raising long term funds are very risky from company's point of view. The risk accepted by the company in case of debentures is twofold. First, to pay the interest at the predefined rate and at predefined time intervals irrespective of non-availability of profits and second, to repay the principal amount of debentures during the life time of the company.

6. Risk on the part of investors is very less in case of debentures. The investors in debentures being the creditors of the company, they cannot control the affairs of the company. As such, the debentures do not carry any voting rights. However, in the event of non-payment of interest or principal amount, they can interfere in the operations of the company by taking legal action.
7. In financial terms, debentures prove to be a cheap source of funds from the company's point of view. The reasons for this will be discussed in the following paragraphs.

TYPES OF DEBENTURES

A Company can issue debentures of different varieties as described below -

1. **Registered Vs. Bearer:** Registered Debentures are those the holders of which are registered in the company as debenture holders and those can be transferred to another person only through the company. Holders of bearer debentures are not registered with the company and can be transferred to anybody by mere delivery.
2. **Convertible Vs. Non-Convertible:** Convertible Debentures are the debentures which have the right to get converted into the equity shares of the company. Non-Convertible Debentures do not enjoy such right.

   Based upon the conversion criteria, debentures can be classified as below -

   a. **Fully Convertible Debentures (FCD):** FCDs are the debentures which are entirely convertible in the form of equity shares of the company. For example, the terms of issue may provide that the face value of the debenture is Rs. 100. At the end of 5 years, the investors will get 1 equity share of the company. This is the case of FCD.

   b. **Partly Convertible Debentures (PCD):** PCDs are the debentures which are partly convertible in the form of equity shares of the company. For example, the terms of issue may provide that the face value of the debenture is Rs. 200. At the end of 5 years, the investors will get one equity share of Rs. 100 each while the remaining amount of Rs. 100 will be repaid at the end of 7 years. This is the case of PCD.

   c. **Non-Convertible Debentures (NCD):** NCDs are the debentures which are not convertible in the equity shares of the company. They are issued as debentures; they are repaid as debentures.

   d. **Optionally Convertible Debentures:** In case of optionally convertible debentures, the investors are given the option to convert their investment in the form of equity shares of the company.

ADVANTAGES OF DEBENTURES

1. **To the company:**

   a. By issuing the debentures, the controlling position of the existing equity shareholders does not get affected as the debentures do not carry any voting rights.

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b. Cost associated with debentures is comparatively less than the cost associated with the equity shares. As such, it is economical for the company to issue debentures.

c. During the period of depression when the investors are not prepared to take much of the risk, the company may be compelled to issue debentures as a source of raising long term capital.

d. The company might have borrowed various small amount of debts of short duration which may prove to be costly and burdensome for the company. All these small debts may be converted into a single issue of debentures which may prove to be less costly for the company.

2. **To the investors:** Debentures prove to be a good investment option for the conservative investors as well as the institutional investors, mainly due to following two reasons-

a. Fixed rate of interest payable by the company irrespective of non-availability of profits.

b. Security available for the investment.

DISADVANTAGES OF DEBENTURES

1. By issuing the debentures, the company accepts the risk of two types. One to pay the interest at a fixed rate, irrespective of the non-availability of profits and Second, repayment of principal amount at the predefined time. If earnings of the company are not stable or if the demand for the products of the company is highly elastic, debentures prove to be a very risky proposition for the company. Any adverse change in the earnings or demand may prove to be fatal for the company.
2. Debentures are usually a secured source for raising the long term requirements of funds and usually the security offered to the investors is the fixed assets of the company. A company which requires less investment in fixed assets, viz. A trading company may find debentures as a wrong source for raising the long term requirement of funds as it does not have sufficient fixed assets to offer as security.

PROTECTION OF INTERESTS OF DEBENTURE HOLDERS

Recent amendments to Companies Act, 1956 have made some provisions with the intention to protect the interests of the debenture holders.

1. A Company accepting the funds from debenture holders shall appoint one or more debenture trustees and in Prospectus or the Letter of Offer, the company should state that the debenture trustee or trustees have given their consent to the company to act in the same capacity. The debenture trustee will be primarily responsible to ensure that the interests of the debenture holders are protected (including the creation of security) and the grievances of the debenture holders are effectively redressed. To be more specific, the debenture trustee should take following effective steps -

1. To ensure that the assets of the company and of the guarantors are sufficient to discharge the principal amount at all times. If it is concluded that the assets

of the company are insufficient to discharge the principal amount, the trustees may file a petition before the Company Law Board who, after hearing both the parties, may impose restrictions on the incurring of any further liabilities by the company.

2. To satisfy himself that the prospectus or the letter of offer does not contain any matter inconsistent with the terms of debentures or with the trust deed.
3. To ensure that the company does not commit any breach of the provisions of the trust deed.
4. To take steps to remedy any breach of the provisions of trust deed or terms of issue of debentures.
5. To take steps to call meeting of the debenture holders as and when required.

2. The trust deed for securing the issue of debentures should be executed in the prescribed form and within stipulated period. This trust deed shall be open for inspection by any member or debenture holder of the company and he can take the copies of the same on the payment of prescribed fees.
3. A company issuing debentures is required to create debenture redemption reserve for the redemption of debentures and every year adequate amount should be credited to this reserve out of the profits until such debentures are redeemed. The amount standing to the credit of debenture redemption reserve shall be available only for the redemption of debentures.

TERM LOANS

Term Loans indicate liabilities accepted by the company which are for the purpose of purchasing the fixed assets and are repayable over a period of 3 to 10 years. The term loans may be granted by the Banks (nationalized, cooperative, rural etc.) or the Financial Institutions like Industrial Development Bank of India (IDBI), Industrial Credit and Investment Corporation of India (ICICI), Industrial Finance Corporation of India (IF CI) etc.

FEATURES OF TERM LOANS

1. Banks or Financial Institutions granting the term loans are not at all the owners of the company. They are creditors of the company. They lend the funds to the company.
2. Term Loans are required to be repaid during the life time of the company at the predecided intervals say monthly, quarterly, yearly etc. The initial gap after which the repayment of term loan starts (technically referred to as the morotonum period) also depends upon the agreement between the borrowing company and the lending bank or financial institution.
3. The term loans may be secured or unsecured, though normally all the term loans are secured. The security which is offered for the term loans is the hypothecation or mortgage of the fixed assets purchased with the help of term loans.
4. Return payable by the company on term loans is in the form of interest which may be calculated on monthly or quarterly or half yearly basis at a predecided rate

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on the outstanding balance of the term loan. The interest on term loan is payable despite the non-availability of profits.

5. Term Loans as a source of raising long term funds is very risky from company s point of view The risk accepted by the company in case of term loans is twofold. One, to pay the interest at the predecided rate and at predecided time intervals irrespective of nonavailability of profits and Second, to repay the principal amount of term loans.
6. Risk on the part of lending bank or financial institution is very less in case of term loans. The banks or financial institutions being the creditors of the company, they cannot control the affairs of the company. As such, they do not have any voting rights. However, in the event of non-payment of interest or principal amount, they can interfere in the operations of the company by taking legal action.
7. In financial terms, as in case of debentures, term loans also prove to be a cheap source of funds from the company's point of view. The reasons for this will be discussed the following paragraphs.

PUBLIC DEPOSITS

In the recent past, Public Deposits has become one of the most important sources available to the companies for meeting the medium term requirement of funds. The companies find public deposits as an attractive source mainly due to following reasons -

1. Raising the funds in the form of public deposits is more convenient than borrowing the funds from banks and financial institutions. Borrowing the funds from banks or financial institutions is a tedious job involving the compliance with many procedural requirements like margin money stipulations, security requirements, submission of periodical statements etc. None of these procedural requirements are required to be complied with in case of public deposits.
2. The rate of interest which the company is required to pay on public deposits is comparatively less than the rate of interest payable on the funds borrowed from banks or financial institutions.
3. Public Deposits are unsecured borrowings for the company.
4. The company can raise the funds in the form of public deposits which can be used for any purposes. The end use of the funds raised in the form of public deposits is not committed by the company.
5. In the situations of credit squeeze introduced by the banks, public deposits play a very important role.

LEASE FINANCING

Under the leasing agreements, the company acquires the right to use the asset without holding the title to it. Thus, it is the written agreement between the owner of the assets, called "the lessor", and the user of the assets, called "the lessee" whereby the lessor permits the lessee to economically use the asset for a specified period of time but the title of the asset is retained by the lessor. This economical use of the asset is permitted by the lessor on the payment of periodical amount which is in the form of "lease rent".

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ADVANTAGES OF LEASING FOR THE LESSEE:

1. **Risks of ownership:** Leasing facilitates lessee to avoid the risks attached with the ownership of the equipments, say risk of obsolescence in the area of ever-changing technologies.
2. **Saving of capital outlay**: Leasing enables lessee to make full use of the asset without making immediate payments of the purchase price which otherwise would be payable by him. Some lessors may also finance to the extent of 100% of the cost of the equipment where lessee is not required to make any provision for asset acquisition.
3. **Tax advantages:** Under the leasing propositions, the payment of lease rents is the tax deductible expenditure. On the other hand, if the company decides to own the same asset by resorting to the borrowing, the expenses which are available for deduction for tax purposes are in the form of depreciation and interest on borrowing.
4. **Structuring of lease rents**: Lessor may structure the payments of lease rents in such a way that it matches the revenue expectations of the lessee from the equipments, which may not be possible if lessee resorts to borrowing for owning the asset.
5. **No effect on borrowing power:** As the obligations accepted by the lessee under the lease deed appear nowhere on the balance sheet as debt, the borrowing power of the lessee still remains unaffected. The lessee may still resort to debt capital provided equity base of the company permits further borrowing.
6. **Convenience:** Leasing is the quickest method of financing the requirements of long term capital and lessee is relieved from the rigid and time consuming procedures and terms and conditions involved in other forms of term borrowings say term loans.

TYPES OF LEASES

1. **Financial Lease:** In this type of lease, the lessor acts as a financier. Lessee selects the asset and bears the cost of repairs, maintenance and insurance of the asset. Lessor reserves the right to confiscate the asset in the event of any default on the part of lessee. The lessor recovers a major part of the cost of asset by way of lease rent during the lease period; the lessor agrees to transfer the ownership of the asset to the lessee by paying a nominal price which is referred to as "repurchase Price". This type of lease is also referred to as "capital lease".
2. **Operating Lease:** In this type of lease, the lessee gets a limited right to use the asset. Lessor selects and purchases the asset and leases the same to the lessee. Lessor bears the cost of repairs, maintenance and insurance of the asset. Operating lease is for a smaller duration of time and imposes no long term obligation either on the lessor or on the lessee. The lease rent paid by the lessee does not contain any part towards the cost of the asset. After the lease period is over, the possession of the asset reverts back to the lessor who can lease out the asset to another party. The lease deed is cancellable at the option of the lessor or the lessee after giving specific notice.
3. **Sale and Lease Back:** In this type of lease, the lessee purchases the asset of his own choice and then sells the same to the lessor. On the sale of asset to the lessor, the

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ownership of the asset gets transferred to the lessor. Lessor then leases out the same asset to the lessee. After this stage, it becomes a routine lease transaction both for the lessor as well as for the lessee. In practical circumstances, this type of lease is very regularly found in case of some old asset which is used by an organisation for a certain duration of time.

HIRE PURCHASING

Hire Purchasing is also emerging as a popular source of long-term financing whereby the company can acquire long term infrastructural facilities, say fixed assets. It will be pertinent to note here the relationship between lease financing and hire purchasing.

Hire purchase indicates an agreement between the owner of goods, called as "the hiree" and the user of the goods, called as "the hirer" whereby the hiree deliver the goods to the hirer but the ownership of the goods remains with the hiree. In return, the hirer makes the periodical payments of hire charges which are partly against the capital repayment and partly against the interest payable. For accounting and tax purposes, only the interest is treated as revenue expenditure and is considered to be a tax-deductible expenditure. The hirer capitalises the asset purchased under the hire purchase agreement though he is not the owner of the assets. Depreciation is considered by the hirer as an expenditure, debiting the same to profit and loss account and hence becomes the tax-deductible expenditure. The further hire purchase installments towards capital which are not yet due are shown as liability on the Balance Sheet.

After the hire charges are paid by the hirer in full, he gets an option of purchasing the asset entirely in which case the installments paid earlier are converted into the purchase price and the ownership of the asset is transferred to the hirer. If the hirer fails to pay any installment, hiree can take the possession of the asset without refunding any installment paid earlier. It is the duty of the hirer to keep the asset in good condition. As such, the hiree may stipulate that the assets should be properly insured, the premium being paid by the hirer. Further, it may also be stipulated that the hirer will not sell or exchange the asset till he becomes the owner of the asset. The hirer has a right to put an end to the agreement before the last installment is paid, but the installments paid by him previously are not refunded to him.

4.9 CAPITAL STRUCTURE

For undertaking any business activity capital is required. Capital can be own capital (equity) or borrowed capital (debt). A firm has to decide what should be the proportion of equity and debt. Also a firm has to calculate the cost of capital so that they can compare it with the return on capital employed. If a firm depends upon borrowed capital it is called as leveraging.

Capital structure refers to the mix of sources from which the long term funds required by a business are raised, i.e., what should be the proportion of equity share capital, preference share capital, internal sources, debentures and other sources of funds in the total amount of capital which an undertaking may raise for establishing its business.

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PRINCIPLES OF CAPITAL STRUCTURE

1. **Cost Principle:** According to this principle, ideal capital structure should minimize cost of financing and maximize earnings per share. Debt capital is a cheaper form of capital due to two reasons. First, the expectations of returns of debt capital holders are less than those of equity shareholders. Secondly, interest is a deductible expenditure for tax purposes whereas dividend is an appropriation of profits.
2. **Risk Principle:** According to this principle, ideal capital structure should not accept unduly high risk. Debt capital is a risky form of capital, as it involves contractual obligations as to the payment of interest and repayment of principal sum, irrespective of profits or losses of the business. If the organisation issues large amount of preference shares, out of the earnings of the organisation, less amount will be left for equity shareholders as dividend on preference shares are required to be paid before any dividend is paid to equity shareholders. Raising the capital through equity shares involves least risk as there is no obligation as to the payment of dividend.
3. **Control Principle:** According to this principle, ideal capital structure should keep controlling position of owners intact. As preference shareholders and holders of debt capital carry limited or no voting rights, they hardly disturb the controlling position of residual owners. Issue of equity shares disturb the controlling position directly as the control of the residual owners is likely to get diluted.
4. **Flexibility Principle:** According to this principle, ideal capital structure should be able to cater to additional requirements of funds in future, if any. E.g. If a company has already raised too heavy debt capital, by mortgaging all the assets, it will be difficult for it to get further loans inspite of good market conditions for debt capital and it will have to depend on equity shares only for raising further capital. Moreover, organisation should avoid capital on such terms and conditions which limit company's ability to procure additional funds. E.g. If the company accepts debt capital on the condition that it will not accept further loan capital or dividend on equity shares will not be paid beyond a certain limit, then it loses flexibility.
5. **Timing Principle:** According to this principle, ideal capital structure should be able to seize market opportunities should minimize cost of raising funds and obtain substantial savings. Accordingly, during the days of boom and prosperity, company can issue equity shares to get the benefit of investors' desire to invest and take the risk. During the days of depression, debt capital may be used to raise the capital as the investors are afraid to take any risk.

FACTORS AFFECTING CAPITAL STRUCTURE

Before deciding the mix of various long term sources of funds, it is necessary for the company to take into consideration various factors which can be broadly classified as below:

- Internal Factors
- External Factors
- General Factors

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INTERNAL FACTORS

1. **Cost Factor:** Cost Factor as the factor affecting the capital structure decisions refers to the cost associated with the process of raising the various long term sources of funds which is referred to as Cost of Capital. While deciding the capital structure, it should be ensured that the use of capital is capable of earning enough revenue to justify the cost of capital associated with it. It should be noted that the borrowed capital is a cheaper form of capital for the company and this is due to the following reasons -

   a. The expectations of the lenders of borrowed funds (viz. debentures, term loans etc.) are less than the expectations of the investors who invest in the own capital of the company (viz. shares). This is due to the fact that the risk on the part of lenders of borrowed funds is comparatively less than the risk on the part of investors in own funds.

   b. The return which the company pays on borrowed funds (i.e. interest) is an income tax deductible expenditure for the company whereas the return paid on own capital (i.e. dividend) is not an income tax deductible expenditure for the company. As such, when the company pays the interest on borrowed capital, its tax liability gets reduced, whereas payment of dividend does not affect the tax liability of the company as the same is paid out of profit after taxes.

2. **Risk Factor:** In financial terms, risk and return always go hand in hand. Whichever capital is cheap for the company is risky for the company. Cost associated with the borrowed funds may be less, but the borrowed capital is riskier for the company. This is due to the following reasons.

   a. Payment of interest at the predetermined rate of interest at the predetermined time intervals irrespective of non-availability of profits is a contractual obligation for the company.

   b. The company is required to repay the principal amount of borrowed capital at the predetermined maturity date.

   c. Borrowed capital is usually secured capital. If the company tails to meet its contractual obligations, the lenders of borrowed funds may enforce the sale of assets offered to them as security.

   Cost associated with the own funds may be more for the company, but the risk associated with them is less. This is due to the following reasons:

   a. As the return paid on own capital i.e. dividend is the appropriation of profits, the company is not bound to pay any dividend unless there are profits. There are many companies who have not paid any dividend on equity shares for years together due to non-availability of profits.

   b. The company is not expected to repay the own capital during the lifetime of the company.

   c. Own capital is an unsecured capital. As such, none of the assets of the company are offered as the security to the investors in own funds.

3. **Control Factor:** While planning the capital structure and more particularly while raising the additional funds required by the company, the control factor essentially becomes an important factor to be considered, specifically for the closely held private limited companies. Control factor refers to the capacity of the existing owners of the company to retain control over operations of the company. If the company decides to meet the additional requirements of funds by issuing the equity shares or preference shares, the controlling interest of the existing owners is likely to get diluted as the investors in equity shares enjoy the absolute voting rights while investors in preference shares enjoy limited voting rights. If the company decides to meet the additional requirement of funds by way of borrowed capital, the controlling interest of the existing owners remains intact as the lenders of borrowed funds do not enjoy any voting rights. However, it should be remembered here that if the existing owners contribute to the rights shares which indicate the additional shares offered to the existing owners in the existing proportion, their controlling interest may not get affected. Similarly, while raising the additional requirements of funds by way of borrowed capital, the existing owners of the company need to remember that their controlling interests may be indirectly affected if the lending Bank or Financial Institutions appoint their representatives as Nominee Directors on the Board of Directors of the borrowing company.

EXTERNAL FACTORS

1. **General Economic Conditions:** While planning the capital structure, the company needs to consider the general conditions existing in the economy. If the economy is in boom and the interest rates are likely to decline, the company will like to raise equity capital immediately, leaving the borrowed capital to be considered in future. It may also be possible to raise more equity capital in boom as the investors may be ready to take risk and to invest. If the economy is in depression, the company will like to go for equity capital as it involves less amount of risk. However, it may not be possible to raise the capital by way of equity during the period of depression as the investors may not be willing to take the risk. Under such circumstances, the company may be required to go for borrowed capital.
2. **Behaviour of Interest Rates:** While planning the capital structure, the company may be required to take into consideration the likely behaviour of interest rates in the economy. If the interest rates in the economy are likely to decline, depending more upon the long term sources carrying fixed rate of return (viz. debentures, preference shares) will prove to be dangerous for the company. If the interest rates in the economy are likely to increase, the company will get benefited by issuing the long term securities carrying fixed rate of return.
3. **Policy of the Lending Institutions:** If the policy of the lending banks or financial institutions is too harsh or rigid, it will be advisable not to go for borrowed funds. Instead, the company will like to go for more convenient sources like leasing or hire purchase, though they are costlier propositions.
4. **Taxation Policy:** Taxation policy as a factor affecting the capital structure decisions needs to be viewed from the angle of the company as well as the investor. As far as interest is concerned, from company's point of view, the return paid on the

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borrowed capital i.e. interest is a tax-deductible expenditure. From investor's point of view, return received by him on the funds lent to the company is a taxable income. Further, if the interest on debentures/bonds exceeds Rs. 2,500, the paying company is required to deduct the tax at source and pay the same to the Central Government. As such, income received by the investors in their hands gets reduced to the extent of tax deducted at source.

5. **Statutory Restrictions:** The statutory restrictions prescribed by the Government and various other statutes are required to be taken into consideration before the capital structure is planned by the company. The company has to decide the capital structure within the overall framework prescribed by the Government or various other statutes.

GENERAL FACTORS

1. **Constitution of the Company:** While deciding the capital structures, constitution of the company plays a very important role. If the company is a private limited company or a closely held company, control factor may play a dominant role. If the company is public limited company or a widely held company, cost factor may play a dominant role.
2. **Characteristics of the Company:** Characteristics of the company in terms of its size, age and credit standing play very important role in the capital structure decisions. Very small companies and the companies in their early stage of life have to depend more upon the equity capital, as they have limited bargaining capacity and they do not enjoy the confidence of the investors.
3. **Stability of Earnings:** If sales and earnings of the company are stable and predictable in future, the company does not mind taking the risk and it can borrow the funds, as cost factor and control factor will play more important role. However, if the sales and earnings are not likely to be stable and predictable over a period of time and are likely to be subject to wide fluctuations, the risk factor plays an important role and the company will not like to have more borrowed capital in its capital structure.
4. **Attitude of the Management:** If the management attitude is conservative, the control factor and risk factor may play important role in the capital structure decisions. If the management attitude is aggressive, cost factor may play an important role.

OBJECTS OF THE CAPITAL STRUCTURE PLANNING

While planning the capital structure, following objects of the capital structure planning come into play.

1. To maximise the profits available to the owners of the company. This can be ensured by issuing the securities carrying less cost of capital.
2. To issue the securities which arc easily transferable. This can be ensured by listing the securities on the stock exchange.
3. To issue further securities in such a way that the value of shareholding of present owners is not adversely affected.

4. To issue the securities which are understandable by the investors.
5. To issue the securities which are acceptable to the lenders or investors.

4.10 THEORIES OF CAPITAL STRUCTURE

In practice it is difficult to specify an optional capital structure-indeed, managers even feel uncomfortable about specifying an optional capital structure range. Thus, financial managers worry primarily about whether their firms are using too little or too much debt, not about the precise optimal amount of debt. Even if a firm's actual capital structure varies widely from the theoretical optimum, this capital structure decision is secondary in importance to operating decisions, especially those relating to capital budgeting and the strategic direction of the firm.

Different kinds of theories have been propounded by different authors to explain the relationship between capital structures. The four important theories of capital structure are:

1. **Net Income Approach:** According to this approach, a firm can minimize the weighted average cost of capital and increase the value of the firm as well as market price of equity shares by using debt financing to the maximum possible extent. A higher debt content in the capital structure means high financial leverage and this results in decline in the overall or weighted average cost of capital. This result in increases in the value of the firm and also increases in the value of the equity shares. In an opposite situation, the reverse conditions prevail.

   This approach is based upon the following assumptions:

   a. The cost of debt is less than the cost of equity.
   b. There are no taxes.
   c. The risk perception of investors is not changed by the use of debt.

DEGREE OF LEVERAGE AND COST OF CAPITAL

The line of argument in favour of net income approach is that as the proportion of debt financing in capital structure increase, the proportion of a less expensive source of funds increases. This results in the decrease in overall (weighted average) cost of capital leading to an increase in the value of the firm. The reasons for assuming cost of debt to be less than the cost of equity are that interest rates are usually lower than dividend rates due to element of risk and the benefit of tax as the interest is a deductible expense.

On the other hand, if the proportion of debt financing in the capital structure is reduced or say when the financial leverage is reduced, the weighted average cost of capital of the firm will increase and the total value of the firm will decrease. The Net Income (NI) Approach showing the effect of leverage on overall cost of capital has been presented in the following figure.

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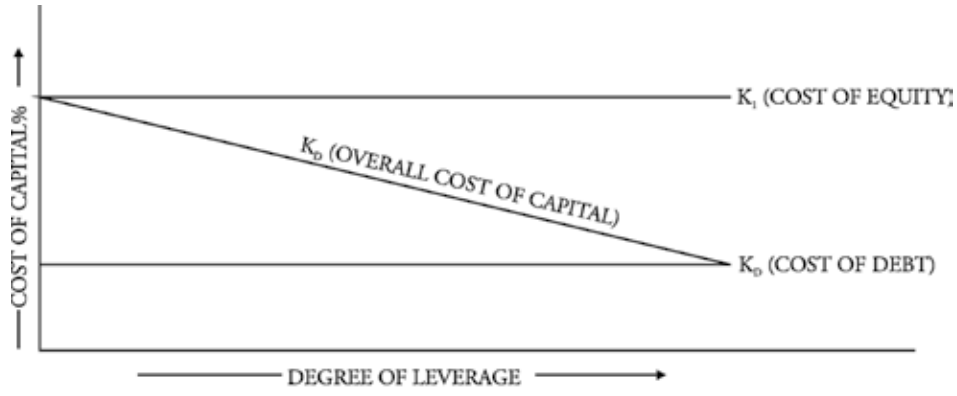


(Net Income Approach: Effect of Leverage on Cost of Capital)

The total market value of a firm on the basis of Net Income Approach can be ascertained as below:

V= S + D

Where, V= Total market value of a firm

S = Market value of equity shares

= Earnings Available to Equity Shareholders (NI)/Equity Capitalisation Rate

D = Market value of debt,

and, Overall Cost of Capital or Weighted Average Cost of Capital can be calculated as:

K0 = EBIT/v

EXAMPLE: X Ltd. is expecting an annual EBIT of Rs. 1 lakh. The company has Rs. 4 lakhs in 10% debentures. The cost of equity capital or capitalisation rate is 12.5%.

You are required to calculate the total value of the firm according to the Net Income Approach:

Solution: Calculation of the Value of the Firm

Calculation of the Value of the Firm	
Rs.	
Net income (EBIT)	1,00,000
LESS : Interest on 10% DEBENTURES OF Rs.	40,000
earnings available to equity shareholders	60,000
market capitalisation rate	12.5%
market value equity (S)= 60,000×	4,80,000
market value of debentures (D)	4,00,000
value of the firms (S+D)	8,80,000

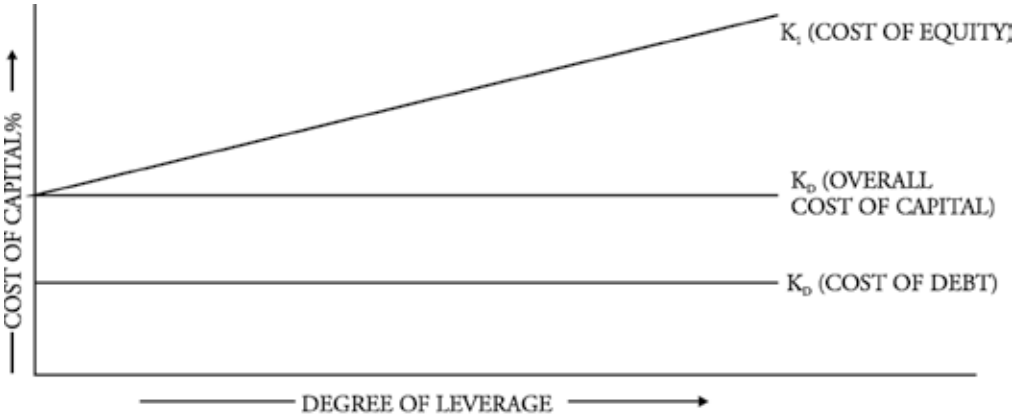
2. **Net Operating Income Approach:** This theory as suggested by Durand is another extreme of the effects of leverage on the value of the firm. It is diametrically opposite to the net income approach. Accordingly, to this approach, change in the capital structure of a company does not affect the market value of the firm and the overall cost of capital remains constant irrespective of the method of financing. It implies that the overall cost of capital remains the same whether the debt-equity mix is 50:30 or 20:80 or 0:100. Thus, there is nothing as an optimal capital structure and every capital structure is the optimum capital structure.

   This theory presumes that:

   a. The market capitalises the value of the firm as a whole;

   b. The business risk remains constant at every level of debt equity mix;

   c. There are no corporate taxes.



(The NOI Approach: Effect of Leverage on Cost of Capital)

The reasons propounded for such assumptions are that the increased use of debt increases the financial risk of the equity shareholders and hence the cost of equity increases. On the other hand, the cost of debt remains constant with the increasing proportion of debt as the financial risk of the lenders is not affected.

Thus, the advantage of using the cheaper source of funds, i.e., debt is exactly offset by the increased cost of equity.

According to the Net Operating Income (NOI) Approach, the financing mix is irrelevant and it does not affect the value of the firm. The NOI approach showing the effect of leverage on the overall cost of capital has been presented in the following figure.

The value of a firm on the basis of Net Operating Income Approach can be determined as below:

V = EBIT/K0

Where, V = Value of a firm

EBIT = Net operating income or Earnings before interest and tax

k_O = Overall cost of capital

NOTES 

The market value of equity, according to this approach is the residual value which is determined by deducting the market value of debentures from the total market value of the firm.

$S = V - D$

Where, S = Market value of equity shares

V = Total market value of a firm

D = Market value of debt

The cost of equity or equity capitalisation rate can be calculated as below:

Cost of Equity or Equity Capitalisation Rate (K_e) =

$$\frac{Earnings\ after\ Interest\ and\ before\ tax}{Maket\ Value\ of\ the\ firm\ -\ Market\ Value\ Debt}$$

$$= EBIT - \frac{I}{V - D}$$

3. **The Traditional Approach:** The traditional approach, also known as intermediate approach, is a compromise between the two extremes f net income approach and net operating income approach. According to this theory, the value of the firm can be increase initially or the cost of capital can be decreased by using more debt as the debt is a cheaper source funds than equity. Thus, optimum capital structure can be reached by a proper debt equity mix. Beyond a particular point, the cost of equity increase because increased debt increases the financial risk of the equity shareholders. The advantage of cheaper debt at this point of capital structure is offset by increased cost of equity. After this there comes a stage, when the increased cost of equity cannot be offset by the advantages of low cost debt.

4. **Modigliani and Miller Approach:** M & M hypothesis is identical with the net opening income approach if taxes are ignored. However, when corporate taxes are assured assumed to exist, their hypotheses are similar to the Net Income Approach.

   In the absence of taxes. (Theory of Irrelevance): The theory proves that the cost of capital is not affected by changes in the capital structure or say that the debt equity mix is irrelevant in the determination of the total value of a firm. The reason argued is that though debt is cheaper to equity, with increased use of debt as source of finance, the cost of equity increase. This increase in cost of equity offsets the advantage of the low cost of debt. Thus, although the financial leverage affects the cost of equity, the overall cost of capital remains constant. The theory emphasizes the fact that a firm's opening income is a determinant of its total value.

   When the corporate taxes are assumed to exist. (Theory of Relevance): Modigliani and Miller have recognized that the value of the firm will increase or cost of capital will decrease with the use of debt on account of deductibility of increase charges for tax purpose. This, the optimum capital structure can be achieved by maximizing the debt mix in the equity of a firm.

4.11 COST OF CAPITAL

The cost of raising funds to finance a project includes, Interest/Dividend and other miscellaneous expenses like stamp duty, processing fees, consultant's fees and Opportunity cost of the funds of company. Return on capital employed should be more than the cost of capital. Otherwise the company will be in loss.

We discussed about the various sources from which the long term requirement of the capital can be met. Each of these sources involves some cost. The cost of capital can be defined as "the rate at which an organisation must pay to the suppliers of capital for the use of their funds".

In economic terms, the cost of capital is viewed from two different angles:

1. The cost of raising funds to finance a project. This cost may be in the form of the interest which the company may be required to pay to the suppliers of funds. This maybe the explicit cost attached with the various sources of capital.
2. The cost of capital may be in the form of opportunity cost of the funds of company i.e. rate of return which the company would have earned if the funds are not invested. E.g. Suppose that a company has an amount of Rs. 100,000 which may either be utilised for purchasing a machine or may be invested with a bank as fixed deposit carrying the interest 10% p.a. If the company decides to use the amount for purchasing the machine, obviously it will have to forgo the interest which it would have earned by investing the same in fixed deposit with the bank. Thus, the cost of capital of this capital of Rs. 1,00,000 is 10%.

Besides the general concept of cost of capital, **the following concepts are also used frequently:**

1. **Component Cost and Composite Cost:** Component cost refers to the cost of individual components of capital viz. equity shares, preference shares, debentures and so on. Composite cost of capital refers to the combined or weighted average cost of capital of the various individual components. For capital budgeting decisions, it is the composite cost of capital which is considered.
2. **Average Cost and Marginal Cost:** The average cost refers to the weighted average cost of capital. Marginal cost refers to the incremental cost attached with new funds raised by the company.
3. **Explicit Cost and Implicit Cost:** Explicit cost is the one which is attached with the source of capital explicit or apparently. Implicit cost is the hidden cost which is not incurred directly. E.g. In case of the debt capital, the interest which the company is required to pay on the same is explicit cost of capital. However, if the company introduces more and more doses of debt capital in the overall capital structure, it makes the investment in the company a risky proposition. As such, the expectations of the investors in terms of return on their investment may increase and share prices of the company may decrease. These increased expectations of the investors or the decreased share prices may be considered to be implicit cost of debt capital.

NOTES 

IMPORTANCE OF COST OF CAPITAL

The term cost of capital is important for a company basically for following purposes:

1. The concept of cost of capital is used as a tool for screening the investment proposals. E.g. In case of the net present value method, the cost of capital is used as the discounting rate for discounting the future inflow of funds. Any project resulting into positive net present value only will be accepted. All other projects will be rejected. Similarly, in case of Internal Rate of Return Method (IRR), the resultant IRR is compared with the cost of capital. It is expected, that if a project is to be accepted, IRR resulting from the same should be more than cost of capital. If project generates IRR which is less than cost of capital, the project will be rejected.
2. The cost of capital is used as the capitalisation rate to decide the amount of capitalisation in case of a new concern.
3. The concept of cost of capital provides useful guidelines for determining the optimal capital structure (This concept is discussed in details in the following pages). Optimal capital structure is the one where overall cost of capital is minimum and the overall valuation of the firm is maximum.

COST OF EQUITY SHARES

Computation of cost of equity shares is the most complex procedure. It is due to the fact that unlike preference shares or debentures, equity shares do not have either the interest or dividend to be paid at a fixed rate. The cost of equity shares basically depends upon the expectations of the equity shareholders. There are following approaches to compute the cost of equity shares.

1. **Dividend/Price (D/P) Approach:** According to this approach, before an investor pays certain price for purchasing equity shares of the company, he expects certain return on the investment which is in the form of the dividend. The expected rate of dividend is the cost of equity shares. This means, that the investor calculates the market price of the shares by capitalising the present dividend rate which is expected to be same for all times to come at a given level. E.g. If the market price of Equity shares of a company (Face value Rs. 10) is Rs. 15 and if the company at present is paying the dividend @ 20% which is expected to be continued in future also, the cost of Equity Shares will be, 20% x 10/15 =13.3%

   EXAMPLE: Market Price of a share is Rs.25/- Face Value is Rs. 10/- Dividend paid is 50%. Earnings per share is Rs. 10. Calculate the Cost of Equity

   Solution: Cost of Equity as per Dividend/Price method is

   Cost of Equity = Dividend Per Share/ Market Price, =5X100/25 = 20.00%

   This approach is objected on certain grounds. Firstly, this presupposes that an investor looks forward only to receive dividend on equity shares. This may not always be correct. He may also look forward to capital appreciation in the value of his shares. Secondly, this approach assumes that the company will not earn on its retained earnings and that the retained earnings will not result in either appreciation of the market price or increase in dividends. This assumption can be a wrong assumption which may lead to wrong conclusions.

2. **Earnings/Price (E/P) Approach:** According to this approach, the cost of equity shares is based upon the stream of unchanged earnings earned by a company. This approach holds that each investor expects a certain amount of earnings whether distributed by way of dividend or not, from the company in whose shares he invests.

   Objections to the Earnings / Price Approach to compute cost of equity shares are:

   a. Assumption that the Company will exist in future.

   b. Assumption that EPS remains constant in future

   c. Assumption that Market Price of the share remains constant in future

   d. All the earnings may not be distributed as dividends.

   EXAMPLE: Market Price of a share is Rs.25/- Face Value is Rs. 10/- Dividend paid is 50%. Earnings per share is Rs. 10. Calculate the Cost of Equity

   Solution: Cost of Equity as per Dividend/Price method is

   Cost of Equity = Earnings Per Share/ Market Price, =10X100/25 = 40.00%

3. **D/P+G Approach:** According to this approach, the investor is prepared to pay the market price of the shares as he expects not only the payment of the dividend but also expects a growth in the dividend rate at a uniform rate perpetually. Thus, the cost of equity shares can be calculated as: (D/P) + G where

   D = Expected dividend per share P = Market price per share

   G = Growth in expected dividends.

   EXAMPLE: If the dividend per share is Re. 1 per share with the expected growth of 6% per year perpetually, the cost of equity shares, with the assumed market price of the share of Rs. 25, will be 1 /25 + 0.06 = 0.04 + 0.06 = 0.10=10%

   Solution: This approach involves the difficulty of determining the growth rate.

   SBI has given a dividend of Rs. 10 per share. The dividend is expected to grow at 15%. Purchase price of the share is Rs. 1,000/- The cost of equity capital based on Dividend / Price Plus Growth Method will be 10/1,000 + 0.15 = 0.01 +0.15 = 0.16=16%

   EXAMPLE: Market Price of a share is Rs.15/- Face Value is Rs.10/- Dividend paid is 20%. Expected growth in Dividend is 10%. Calculate the Cost of Equity by Dividend / Price Plus Growth Method.

   Solution: Cost of Equity as per this method is:

   Dividend Per Share/ Market Price + (Growth Rate) = 2 XI00/15 = 13.33% + 10% = 23.33%

4. **Realized Yield Approach:** According to this approach, the cost of equity shares may be decided on the basis of yields actually realized over the period of past few years which may be expected to be continued in future also. This approach basically considers D/P + G approach, but instead of considering the future expectations of dividends and growth factor, the actual yields in past are considered.

NOTES 

COST OF RETAINED EARNINGS

Many a times, it is argued that the retained earnings do not cost anything to the company. This is argued like this as there is no obligation, either formal or implied, to pay return on retained earnings even though they constitute one of the major sources of funds for the company. In case of debt, the company has fixed obligation to pay interest on it. Almost similar obligation exists in case of preference share also. In case of equity shares, though there is no legal obligation, the expectations of the shareholders at least provide a starting point for computing the cost of equity shares. The retained earnings do not involve any of such obligations, either, formal or implied. As such, it may be felt that retained earnings involve no cost as they are not raised from outside source. But this contention is not correct. Retained earnings involve cost and this cost is in the form of the opportunity cost in terms of dividend foregone by or withheld from the equity shareholders.

EXAMPLE: Assuming that the profits earned by the company are not retained but are distributed among shareholders by way of dividend. These amounts of dividends which would have been received by the shareholders, after due adjustments for tax deducted at source, could have been invested by the shareholders elsewhere to earn some return. The company, by retaining the profits, prohibits the shareholder from earnings these returns. As such, the company is required to earn on the retained earnings at least equal to the rate which would have been earned by the shareholders if they were distributed to them. This is the cost of retained earnings.

COST OF PREFERENCE SHARES

The cost of capital preference shares is the dividend rate payable on them. As in case of debentures, the cost capital is adjusted for the amount excess or less received on the issue of preference shares.

Cost of Preference Share = Dividend paid/Net amount collected.

Example: Suppose, a company issues 1,000 preference shares of Rs. 100 each at the value of Rs. 105 each. Rate of dividend is 10% and the expenses involved with the issue of preference shares amount to Rs. 10,000. Thus tire net amount received works out to Rs. 95,000 whereas the amount of the dividend is Rs. 10,000.

Solution: Here, the cost of capital works out to (10,000/95,000) x 100 = 10.52%

As the amount of dividend payable on preference shares is not a tax deductible expenditure, there is no question of further adjustment for the tax benefit.

Example: A company issues 1000 Preference Shares of Rs. 100 each at a premium of Rs.5 each bearing a dividend of @8% p.a. Company incurs the expenses in connection with the issue of Preference Shares to the extent of Rs. 10,000. The tax rate applicable is 30%. Calculate the Cost of Preference Shares.

Solution:

S. No.	Particulars	Amount
1	Face Value (1000*100)	100000
2	Add (+) Premium or (-) deduct Discount	5000
3	Expenses for raising debt	10000
4	Net Amount received	95000
5	Interest paid on Face Value	8000
6	Pre Tax Cost = 5/4	8.42%
7	Income Tax saved on Dividend	Nil
8	Net Cost of Debt	8000
9	Post tax cost of Preference Shares	8.42%

COST OF DEBT

The debts may be either short term debts or long term debts. Very naturally, the cost of capital in the form of debt is the interest which the company has to pay. In addition to interest a borrower also incurs expenditure for raising debt in the form of stamp duty, documentation charges, consultancy fees etc. But this is not the real cost attached with debt capital. The real cost is something less than the rate of interest which the company has to pay. This is due to the fact that the interest on debt is a tax deductible expenditure. If the amount of interest is considered as a part of expenses, the tax liability of the company reduces proportionately. As such, while computing the cost of debt, adjustments are required to be made for its tax impact.

Example: Suppose a company issues the debentures having the face value of Rs. 100 and bearing the rate of interest of 10% p.a. If the tax rate applicable to the company is 50%, the cost of debentures is not 10% which is the rate of interest, but it is to be duly reduced by the tax benefit available for this interest. The tax benefit is 50% of 10%, hence the cost of debentures is only 5%. Further, the interest payable on the debentures has to be viewed from the angle of the amount actually received on their issue.

Example: A company issues 1000 debentures of Rs. 100 each bearing interest @8% p.a. Company incurs the expenses in connection with the issue of debentures to the extent of Rs. 10,000 (These expenses may be in the form of discount allowed, underwriting commission, advertisement etc.) Thus, the company will have to pay the annual interest of Rs. 8,000 on the net amount received to the extent of only Rs. 90,000 (i.e. Rs. 1,00,000 minus Rs. 10,000). Cost of debentures in this case works out to around 8.89% and assuming that the tax rate applicable is 50%, the tax benefit makes the cost of debentures equal to 4.45%. However, the debt capital has a hidden cost also. If the debt content in the capital structure of a company exceeds the optimum level, the investors start considering company as too risky and their expectations from equity shares increase.

NOTES 

Solution: The real cost is something less than the rate of interest due to the fact that the interest on debt is a tax deductible expenditure. The tax liability of the company reduces proportionately.

Post tax cost = Pre Tax Cost * (1 - Tax Rate).
If a company has taken a loan at 12% and the income tax rate is 30%., the effective cost of debt = (12*(1-0.30)) = 8.4%.

EXAMPLE: A company issues 1000 debentures of Rs. 100 each bearing interest @8% p.a. Company incurs the expenses in connection with the issue of debentures to the extent of Rs. 10,000. The tax rate applicable is 30%. Calculate the Cost of Debt.

Solution: Calculating Cost of Debt.

S. No.	Particulars	Amount
1	Face Value (1000X100)	100000
2	Add (+) Premium or (-) deduct Discount	0
3	Expenses for raising debt	10000
4	Net Amount received	90000
5	Interest paid on Face Value	8000
6	Pre Tax Cost =5/4	8.89%
7	Income Tax saved on Interest	2400
8	Net Cost of Debt	5600
9	Post tax cost of debt	6.22%

EXAMPLE: A company raised 1000 debentures of Rs. 100 each bearing interest at 11 %. The Company incurred an expenditure of Rs. 8,000/- towards debenture issue. Calculate the cost of debentures after income tax at the rate of 30%.

Solution: Calculating Cost of Debt.

S. No.	Particulars	Amount
1	Face Value (1000X100)	100,000
2	Add (+) Premium or (-) deduct Discount	0
3	Expenses for raising debt	8,000
4	Net Amount received	92,000
5	Interest paid on Face Value	11,000
6	Pre Tax Cost =5/4	11.96%
7	Income Tax saved on Interest	3,300
8	Net Cost of Debt	7,700
9	Post tax cost of debt	8.37%

4.12 WEIGHTED COST OF CAPITAL

After ascertaining the cost of each source of the capital constituting the capital structure, the next step is to compute the composite cost of capital which is defined as the weighted average of the cost of each specific type of capital. The reason behind considering weighted average and not the simple average is to give consideration to the proportion of various sources of funds in the capital structure of the company. Thus, the process of computing the composite cost of capital is carried on by following the steps stated below.

1. Assign weights to various sources of funds. It may be stated here that the weights may be in the form of book value of funds or market value of funds.
2. Multiply the cost of each source of funds by the weights assigned.
3. Calculate the composite cost by dividing total weighted cost by the total weights.

The above process can be explained with the help of following illustrations.

EXAMPLE: The capital structure of a company and the cost of specific sources of funds is as below:

Sources of funds	Book value (weights) Rs. 1	Specific Cost 2	Weighted cost Rs. 3(1x2)
Debentures	1,50,000	5%	7,500
Preference shares	50,000	9%	4,500
Equity shares	2,00,000	15%	30,000
Retained earnings	1,00,000 5,00,000	8%	8,000 50,000
Composite cost of capital	= (Total weighted costs/ Total weights) x = 50,000/5,00,000) x 100=10%		100

EXAMPLE: From the information given below, calculate the weighted cost of capital (before tax) for Z Ltd.

1.	Shareholders' funds	Rs. in Lakhs
	Share Capital - Equity	500
	- Preference	100
	Retained Earnings	300

NOTES 

2.	Loan Funds	
	Secured Loans	800
	Unsecured Loans (Incl. intercorporate deposit)	700
		2,400
(a)	Normal yield on Equity shareholders' fund anticipated at 15%.	
(b)	Dividend rate on preference shares -12%.	
(c)	Tax rate for Z Ltd. - 60%.	
(d)	Interest on secured loans - 16.25%	
(e)	Interest on unsecured loans- 20%	

Solution:

Computation of after tax cost of capitalization			
Source	Book value	Tax Adjusted	Weighted Cost
	(weights)	Cost	
1	2	3	4 i.e. 2x3
Equity shares	500	15%	75
Preference shares	100	12%	12
Retained Earnings	300	15%	45
Secured Loans	800	6.50% i.e.	52
		40% of 16.25%	
Unsecured loans	700	8% i.e.	56
		40% of 20%	
	2400		240
Weighted Average Cost			
Composite cost of capital = (Total weighted costs/Total weights) x 100			
	= 240/2400) x 100=10%		
Computation of before tax cost of capital = After tax cost of capital/ (100%-Tax rate)			
	= 10%/(100%-60%) -		10%/40% = 25%

EXAMPLE: In considering the most desirable capital for a company, the following estimates of the cost of debt and equity capital (after tax) have been made at various levels of debt-equity mix.

Debt as % of total	Cost of debt	Cost of equity	
capital employed	%	%	
0	7.0	15.0	
10	7.0	15.0	
20	7.0	15.5	
30	7.5	16.0	
40	8.0	17.0	
50	8.5	19.0	
60	9.5	20.0	

You are required to determine the optimal debt equity mix for the company by calculating composite cost of capital.

Solution: Calculation of composite cost of capital

Debt as % of total capital employed	Cost of debt	Cost of equity	Composite cost of capital %
0	7.0	15.0	7.0×0.1 + 15.0×1.0=15.00
10	7.0	15.0	7.0×.1 + 15.0×0.9 = 14.20
20	7.0	15.5	7.0×0.2+15.5×0.8 = 13.80
30	7.5	16.0	7.5×0.3+16.0×0.7=13.45
40	8.0	17.0	8.0×0.4+17.0×0.6 = 13.40
50	8.5	19.0	8.5×0.5+19.080.5 = 13.75
60	9.5	20.0	9.5×0.6 + 20.0×0.4=13.70

It can be seen from the above that composite cost of capital is minimum i.e. 13.40% when capital structure is as below:

40% debt 60% equity 100%

EXAMPLE: Following items have been extracted from the liabilities side of XYZ company as at 31st December 1986

Rs.	
Paid-up Capital	
4,00,000 Equity shares of Rs. 10 each	40,00,000
Reserves and Surplus	60,00,000
Loans	

NOTES

15% Non-convertible Debentures	20,00,000
14% Institutional Loans	60,00,000

Other information about the company as relevant is given below:

Year ended	Dividend	Earnings	Average market
31st March	per share	per share	price per share
	Rs.	Rs.	Rs.
2015	4.00	7.50	50.00
2016	3.00	6.00	40.00
2017	4.00	4.50	30.00

You are required to calculate the weighted average cost of capital, using book values as the weights and Earnings/Price (E/P) ratio as the basis of cost of equity.

Solution:
Calculation of Cost of Capital

Sources of Funds	Book Value (Weights)	Tax Adjusted Cost	Weighted Cost
Equity Shares	40,00,000	15%	6,00,000
Reserves & Surplus	60,00,000	15%	9,00,000
Non-convertible Debentures	20,00,000	7.5%	1,50,000
Institutional Loans	60,00,000	7%	4,20,000
	1,80,00,000		20,70,000

Weighted average cost of capital = (20,70,000/1,80,00,000) * 100 = 11.5%

Working Notes:

a. It is assumed that the company is subjected to tax rate of 50%.

b. Cost of equity shares is calculated on Earning/Price basis.

c. Average cost of equity =Average EPS/ Average Market Price = 6/40 = 0.15 =15%

Composite Cost of Capital is also called as Weighted Average Cost of Capital. (WACC). A company raises capital from different sources at different costs. WACC is the combined cost of total capital.

WACC = $(K_e \times E + K_d \times D)/ (E + D)$
where, K_e= Cost of Equity.

K_d= Cost of Debt,

E = Amount of Equity

D=Amount of Debt

EXAMPLE: Cost of Debt 10%. Amount of Debt. 100 Lacs. Cost of Equity 12% Amount of Equity 50 Lacs. Calculate the Composite cost of capital

Solution: WACC = $(K_e \times E + K_d \times D)/ (E + D)$

= (50 × 12% + 100 * 10 %)/(50+100)

=0.10667

= 10.67%

Valuation of Firm: We can calculate the value of a firm based on cost of capital.

Value of Firm = Value of Equity + Value of Debt

Value of Equity = Profit Before Tax/Capitilisation rate %

Value of Debt = Cost of Debt amount/ Cost of Debt %

EXAMPLE: PBIT 10 Lacs Interest 2 Lacs, Cost of Debt = 10%, Capitilisation rate = 20%. Calculate Value of Firm.

Solution:
Value of Equity = Profit Before Tax/Capitilisation rate % = 8,00,000/0.20 = 40,00,000

Value of Debt = Cost of Debt amount/ Cost of Debt % = 2,00,000/0.10 = 20,00,000

Value of Firm = Value of Equity + Value of Debt = 40,00,000+20,00,000 = Rs.60,00,000

Another formula:

Value of Firm — PBIT/ Weighted Average Cost of Capital

4.13 CONCEPT OF LEVERAGES

Let us assume that there are two companies A and B which are exactly similar to each other in terms of nature of business, size, extent of turnover etc. As such, the amount of capitalization is also the same for both the companies which is assumed to be Rs. 10,000. However, strategies for raising the capital are different from each other. Assuming that the required capital can be raised either by way of equity or debt, following particulars are available:

	Company A		Company B	
Sales	20,000	18,000	20,000	18,000
Less: Variable Cost	10,000	9,000	10,000	9,000

NOTES

Contribution	10,000	9,000	10,000	9,000
Less: Fixed Cost	5,000	5,000	5,000	5,000
PBIT	5,000	4,000	5,000	4,000
Less: Interest	900	900	100	100
PBT	4,100	3,100	4,900	3,900
Less: Income Tax @50%	2,050	1,550	2,450	1,950
PAT	2,050	1,550	2,450	1,950
Number of Equity Shares	100	100	900	900
Earnings per share	20.5	15.5	2.72	2.16

It can be noted from the above example that A Ltd. is able to earn more amount per equity share because in its capital structure, the amount of debentures is more and also because the interest paid on debentures is tax deductible expenditure and amount of tax is less in case ot A Ltd.

It can also be noted from the above example that a 10% reduction in sales in case of A Ltd. reduces the earnings per share by around 24% while the same percentage of reduction in sales in case of B Ltd. reduces the earnings per share by around 20%. It happens so because the risk of reduction in sales and earnings gets distributed among less number of equity shares in case of company A Ltd., while the said risk gets distributed among more number of equity shares in case of company B Ltd.

Explanations:
The profitability statement of a company takes the following form -

Profit before Interest & Taxes (PBIT)

Less: Interest on long term borrowings

Profit before Taxes (PBT)

Less: Taxes

Profit after Taxes (PAT)

Less: Preference Dividend

Distributable Profits for Equity

If both the calculations are merged together, following relationship emerges.

Sales Revenue

Less: Variable Operating Cost

Contribution

Less: Fixed Operating Cost

Profit before Interest & Taxes (PBIT)

Less: Interest on Long term borrowings

Profit before Taxes (PBT)

Less: Taxes

Profit after Taxes (PAT)

Less: Preference Dividend

Distributable Profits for Equity

In very simple words, the term leverage measures relationship between two variables. In financial analysis, the term leverage represents the influence of one financial variable over some other financial variable. In financial analysis generally three types of leverages may be computed.

- Operating Leverage
- Financial Leverage
- Combined Leverage

OPERATING LEVERAGE: It measures the effect of change in sales quantity on Earnings Before Interest and Taxes (EBIT)

It is computed as:

Operating Leverage = Sales - Variable Cost (i.e. Contribution)/Earnings before interest and tax

INDICATIONS

A high degree of operating leverage means that the component of fixed cost is too high in the overall cost structure. A low degree of operating average means that the component of fixed cost is less in the overall cost structure. In other words, operating leverage measures the impact of percentage increase or decrease in sales on earnings before interest and taxes.

EXAMPLE: In the example cited above, when sales are Rs. 20,000 contributions is Rs. 10,000 and earnings before interest and taxes arc Rs. 5,000. As such operating leverage can be calculated as:

Operating Leverage = Contribution/ EBIT -10,000/ 5,000 - 2

It means that every 1% increase in contribution will increase the EBIT by 2% and vice

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versa. As such, when contribution is Rs. 9,000 instead of Rs. 10,000 i.e. the contribution is reduced by 10%, the EBIT is reduced by 20% i.e. the EBIT has become Rs. 4,000 instead of Rs. 5,000.

FINANCIAL LEVERAGE

It indicates the firm's ability to use fixed financial charges to magnify the effects of changes in EBIT on the firm's EPS. It indicates the extent to which the Earnings Per Share (EPS) will be affected with the change in Earnings Before Interest and Tax (EBIT). It is computed as:

Financial Leverage = EBIT/ (EBIT - Interest)

INDICATIONS

A high degree of financial leverage indicates high use of fixed income bearings securities in the capital structure of the company. A low degree of financial leverage indicates less use of fixed income bearing securities in the capital structure of the company.

E.g. In the example cited above, in case of A Ltd., the EBIT is Rs. 5,000 and interest on debentures is Rs. 900, when sales are Rs. 20,000 whereas in case of B Ltd., the EBIT is Rs. 5,000 and interest on debentures is Rs. 100 when sales are Rs. 20,000. As such, the degree of financial leverage can be computed as:

Financial leverage -EBIT /(EBIT-Interest)		
A Ltd.	B Ltd.	
Financial leverage =	5,000/(5,000 -900)	5,000/(5,000-900)
	5,000/4,100	5,000/4,900
	1.22	1.02

High degree of financial leverage is supported by the knowledge of the fact that in the capital structure of A Ltd, 90% is the debt capital component, whereas in case of B Ltd, 10% is the debt capital component.

It means that in case of A Ltd. every 1 % increase in EBIT will increase EPS by 1.22 /o and vice versa.

As such, when EBIT is reduced from Rs. 5,000 to Rs. 4,000 (i.e. 20% reduction), EPS of A Ltd. gets reduced from Rs. 20.50 to Rs. 15.50 (i.e. 24.40% reduction) and EPS of B Ltd. gets reduced from Rs. 2.72 to Rs. 2.16 (i.e. 20.40% reduction).

USES OF FINANCIAL LEVERAGE

The degree of financial leverage gives an indication regarding the extent to which EPS may be affected due to every change in EBIT. As the use of debt capital in the capital structure increases the EPS, the company may like to use more and more debt capital in its capital structure by using the financial leverage.

As explained in the example cited above, EPS in case of A Ltd. is Rs. 20.50 when sales

are Rs. 20,000, as 90% of its capital is debt capital. But in case of B Ltd. EPS is only Rs. 2.72 when sales are Rs. 20,000, as only 10% of its total capital is debt capital. As such, the phrase is often used that financial leverage magnifies both profits and losses'.

However, though financial leverage magnifies the profits as well as EPS, the use of debt capital beyond a certain limit will not necessarily give a favourable impact. Use of financial leverage is useful as long as debt capital costs less than what it earns. It reduces profits or EPS if it costs more than what it earns. As such, financial leverage also acts as a guideline in setting maximum limit upto which the company should use the debt capital.

However, the technique of financial leverage suffers from some limitations.

LIMITATIONS

1. It ignores implicit cost of debt. It assumes that the use of debt capital may be useful so long as the company is able to earn more than the cost of debt, i.e. interest. But it is not always correct. Increasing use of debt capital makes the investment in the company a risky proposition, as such the market price of the shares may decline, which may not be maximizing the shareholders' wealth. Before considering the capital structure, the implicit cost of debt should be considered.
2. It assumes that cost of debt remains constant regardless of degree of leverage which is not true. With every increase in debt capital, the interest rate goes on increasing due to the increased risk involved with the same.

COMBINED LEVERAGE

The combined effect of operating leverage and financial leverage measures the impact of charge in contribution on EPS.

Combined Leverage = Operating Leverage * Financial Leverage

{Sales - Variable Cost/Earnings before interest and tax)} * {EBIT/ (EBIT- Interest)}

= (Sales - Variable Cost)/(EBIT-Interest)

EXAMPLE: In the example cited above, in case of both A Ltd. and B Ltd., when sales are Rs. 20,000, contribution is Rs. 10,000 but earnings after interest and before tax are Rs. 4,100 and Rs. 4,900 respectively. As such combined leverage can be computed as:

Solution: Sales - Variable cost (i.e. contribution)/(EBIT-Interest)

A Ltd.	B Ltd.
=10,000/4,100	10,000/4,900
=2.44	2.04

It means that in case of A Ltd. every 1% increase in contribution will increase EPS by 2.44% and vice versa, while in case of B Ltd. every 1% increase in contribution, will increase EPS by 2.04%. As such when contribution gets reduced from Rs. 10,000 to Rs. 9,000 i.e. 10% reduction, EPS of A Ltd. gets reduced from Rs. 20.50 to Rs. 15.50 (i.e.

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24.4% reduction) and EPS of B Ltd. gets reduced from Rs. 2.72 to Rs. 2.16 (i.e. 20.4 reductions).

INDICATIONS

The indications given by the combined effect of operating and financial leverages may be studied under the following possible situations.

1. **High Operating Leverage, High Financial Leverage:** It indicates very risky situation as a slight decrease in sales and/or contribution may affect the EPS to a very great extent. As far as possible, this situation should be avoided.
2. **High Operating Leverage, Low Financial Leverage:** It indicates that a slight decrease in sales and/or contribution may affect EBIT to a very great extent due to existence of high fixed cost but this possibility is already taken care of by low proportion of debt capital in the overall capital structure.
3. **Low Operating Leverage, High Financial Leverage:** It indicates that the decrease in sales/contribution will not affect EBIT to a very great extent as the component of fixed cost is negligible in the overall cost structure. As such, the company has accepted the risk of borrowing more debt capital in order to increase EPS to the maximum possible extent. This may be considered to be an ideal situation.
4. **Low Operating Leverage, Low Financial Leverage:** It indicates that the decrease in sales/contribution will not affect EBIT to a very great extent as the component of fixed cost is negligible in the overall cost structure. But still, the company has not accepted the risk of having large component of debt capital in its capital structure. It may indicate very cautious policy followed by the management which need not be necessary, as it will not maximise the shareholders' wealth. At the same time, it may also indicate that the company is not utilising its borrowing capacity properly and fully.

EXAMPLE: Profitability structure of the company will be as below:

Sales	Rs. 6,00,000
- Variable Cost	Rs. 2,40,000
Contribution	Rs. 3,60,000
- Fixed Cost	Rs. 1,00,000
EBIT	Rs. 2,60,000
- Interest	Rs. 8,000
EBT	Rs. 2,52,000
- Taxes	Rs. 1,26,000
Profit After Tax	Rs. 1,26,000

Calculation of Leverages:

1. Operating Leverage = Contribution/EBIT = 3,60,000/2,60,000 = 1.38
2. Financial Leverage = EBIT/EBT = 2,60,000/2,52,000 = 1.03

3. Combined Leverage - Contribution/EBT = 3,60,000/2,52,000 = 1.43

EXAMPLE: Sales of a company arc Rs.6.00 lacs. Variable cost is 2.00 lacs. Fixed cost (Excluding interest on debt) is Rs. 1.00 lacs. Calculated all the three leverages.

a. Operating Leverage Contribution/EBIT = 4,00,000/ 3,00,000 = 1.33
b. Financial Leverage EBIT/ EBT =3,00,000/2,00,000= 1.50
c. Combined Leverage Contribution/EBT = 4,00,000/2,00,000 = 2.00

Or Combined Leverage = Operating Leverage * Financial Leverage = 1.33 * 1.5 = 2

CHECK YOUR PROGRESS

1. **Explain the meaning of the Cost of Capital.**
2. **Describe the meaning of Cost of Equity.**
3. **Explain the Concept of Leverages.**
4. **Explain the Meaning and Importance of Financial Management**
5. **What are the Duties of Finance Officer?**

4.14 MEANING AND IMPORTANCE OF WORKING CAPITAL

The term "Working Capital" may mean Gross Working Capital or Net Working Capital. Gross Working Capital means Current Assets. Net Working Capital means Current Assets less Current Liabilities. Unless otherwise specified, Working Capital means Net Working Capital. As such, Working Capital Management refers to the proper management of Current Assets and Current Liabilities.

The term current assets refer to those assets held by a business that can be converted in the form of cash or used during normal operations within a short period say one year, without any reduction in value. Current assets change their shape very frequently. The current assets ensure smooth and fluent business operations and are considered to be the life-blood of the business. In the case of a manufacturing organization, current assets may be found in the form of stocks, receivables, cash, and bank balances, and sundry loans and advances.

The term current liabilities refer to those liabilities which are to be paid off during business, within a short period say one year. They are expected to be paid out of current assets or the earnings of the business. Current liabilities consist of sundry creditors, bills payable, bank overdraft or cash credit, outstanding expenses, etc.

Working Capital refers to that part of the firm's capital, which is required for financings short-term or current assets such as cash marketable securities, debtors, and inventories.

The term working capital needs to be viewed from one more angle.

a. Fixed or Permanent Working Capital
b. Variable or Temporary Working Capital

Fixed Working Capital is the minimum working capital required to be maintained in the business on a permanent or uninterrupted basis. The requirement for this type of working capital is unaffected due to the changes in the level of activity.

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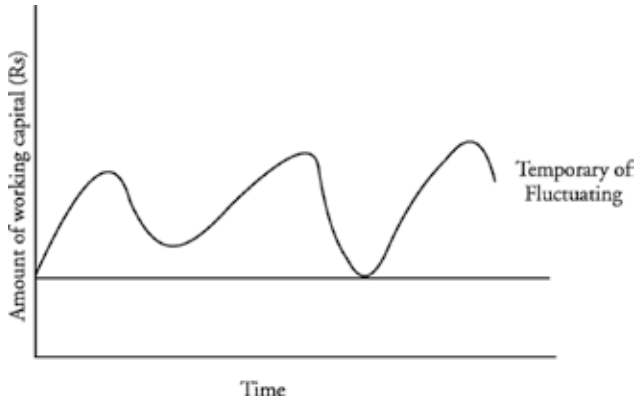
Variable working capital is the working capital required over and above the fixed or permanent working capital and changes with the fluctuations in the level of activity as a result of changes in production and sales.

The relationship between fixed and variable working capital can be shown with the help of the following diagram.



4.15 FACTORS AFFECTING WORKING CAPITAL REQUIREMENT

1. **Nature of business:** Some businesses are such that due to their very nature, their requirement of fixed capital is more rather than working capital. These businesses may sell services and not the commodities and that too on a cash basis. As such, no funds are blocked in piling the inventories and no funds are blocked in receivables. E.g., Public utility services like railways, electricity boards, infrastructure-oriented projects, etc. Their requirement of working capital is less. Whereas if the organization is a trading organization, the requirement of working capital will be on the higher side, as huge amounts of funds get blocked in mainly two types of current assets, stock, and receivables.
2. **Size of the organization:** In small-scale organizations, the requirement of working capital is quite high due to a high number of overheads, high buying costs, and high selling costs. As such, medium-sized organizations have an edge over small-scale organizations. However, if the business grows beyond a certain limit, the requirement of working capital may be adversely affected by the increasing size.
3. **Phase of trade cycles:** During the inflationary conditions, the working capital requirement will be on the higher side as the company may like to buy more raw material, may increase the production to take the advantage of favorable market conditions, and due to increased sales more funds are blocked in stocks and receivables. During the depression, the requirement of working capital will be on the lower side due to reduced operations but more working capital may be required due to piling up of inventories and due to nonpayment of dues by customers in time. As such, in both the extreme situations of trade cycles, the requirement of working capital may be high.

4. **Trading terms:** The terms on which the organization makes the purchases and sales affect the Requirement of working capital in a big way. If the purchases are required to be made on a cash basis and sales are to be made on a credit basis to cope with competition existing in the market, it will result in the high requirement of working capital. Whereas, if the purchases can be made on a credit basis and sales can be made on a cash basis, it will reduce the requirement of working capital, as a part of working capital requirement can be financed out of credit offered by the suppliers.
5. **Length of the production cycle:** The term production cycle refers to the time duration from the stage raw material is acquired till the stage finished product is manufactured. The principle will be "longer the duration of the production cycle, higher the requirement of working capital. In some businesses like the machine tool industry, the time gap between the acquisition of raw material till the completion of production is quite high. As such, more amount is blocked in raw materials or work in progress or finished goods and even in receivables. The requirement of working capital is always very high in this case. Whereas in the case of the industries like the paper industry or sugar industry, the production cycle is very short. As such, the requirement of working capital, at least for stocks, may be very less.
6. **Profitability:** High profitability reduces the strain on working capital as the profit to the extent they are earned in cash can be used for financing the requirement of working capital. However, the profit which reduces the strain on working capital is the post-tax profit (i.e., the profit earned after paying off the tax liability) and post-dividend profit (i.e., the profit remaining in the business after paying the dividend on the shares.)

4.16 WORKING CAPITAL CYCLE

Generally, it will not be possible for any organization to operate without the working capital. Let us assume that a manufacturing organization commences its business with a certain amount of cash. This cash will be invested to buy the raw material. The raw material purchased will be processed with the help of various infrastructural facilities like labor, machinery, etc. to convert the same in the form of finished products. These finished products will be sold in the market on a credit basis whereby the receivables get created. And when receivables make the payment to the organization, cash is generated again. As such, there is a cycle in which cash available to the organization is converted back in the form of cash. **This cycle is referred to as Working Capital Cycle. Working Capital Cycle is also called an Operating cycle.**

1. The time taken to convert raw material into cash is known as the operating cycle.
2. Conversion of cash into raw material.
3. Conversion of raw material into work in progress.
4. Conversion of Work in progress into finished goods.
5. Conversion of finished goods into Credit Sales (Debtors).
6. Recovery from Debtors.

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In between each of these stages, there is some time gap involved. The entire requirement of working capital arises due to this time gap. As this time gap is unavoidable, the requirement of working capital is unavoidable. The finance professional is interested in reducing this time gap to the minimum possible extent to manage the working capital properly.

SOURCES OF WORKING CAPITAL

The basic principle of finance states that the permanent requirement of working capital should be financed out of long-term or permanent sources viz. own generation of funds, cash profits, shares or debentures, etc.

For financing temporary requirement of working capital, the organization can go for various sources which can be discussed as below -

1. Spontaneous Sources
2. Inter-corporate Deposits
3. Commercial Papers
4. Factoring
5. Forfaiting
6. Facility from Banks
7. Spontaneous Sources

1. **Spontaneous Sources:** Spontaneous Sources for financing the working capital requirement arise during normal business operations. During business operations, the company may be able to buy certain goods or services for which the payment is to be made after a certain time gap. As such, the company can buy goods or services without making payment for the same. These spontaneous sources are unsecured and vary with the level of sales. These spontaneous sources do not have any explicit cost attached to the same. They are generally known as "'Current Liabilities." Following forms of current liabilities may be used as spontaneous sources for financing the working capital requirement.

   a. Trade Credit

   If the company buys the raw material from the suppliers on a credit basis, it gets the raw material for utilization immediately with the facility to make the payment at a delayed time. By accepting the delayed payment, the suppliers of raw materials finance the requirement of working capital. For using this source, certain factors may play an important role-

   - Trends in the industry
   - Liquidity position of the company
   - Earnings of the company over some time
   - Record of payment by the company to the suppliers over some time
   - Relationship of the company with the suppliers.

b. Outstanding Expenses

All the services enjoyed by the company are not required to be paid for immediately. They are paid for after a certain time gap. As such, the company can get the benefit of these services without paying for the same immediately, thus getting the finance for working capital purposes. These are called "outstanding expenses". This may apply to salaries, wages, telephone expenses, electricity expenses, water charges, etc.

2. **Inter-corporate Deposits (ICD):** Inter-corporate Deposits indicate the number of funds borrowed by one company from another company, usually both the companies being under the same management but not necessarily so. The point to be noted here is that ICDs are not considered to be deposited as per the provisions of Section 58-A of the Companies Act, 1956, and as such the regulations applicable to the public deposits do not apply to ICDs.
3. **Commercial Papers:** Commercial Paper is an unsecured promissory note issued at a discount. The rate of discount is required to be decided by the issuer and is not regulated. E.g., A CP of Rs. 100 may be issued at Rs. 98, indicating that the investor has to pay Rs. 98 while at the time of maturity, he will get Rs. 100. It means that difference between Rs. 98 and Rs. 100 i.e., Rs. 2 is in the form of interest on the investment made by the investor.
4. **Fund-based lending:** In the case of Fund Based Lending, the lending bank commits the physical outflow of funds. As such, the fund's position of the lending bank does get affected. The Fund Based Lending can be made by the banks in the following forms:

   a. **Loan:** In this case, the entire amount of assistance is disbursed at one time only, either in cash or by transfer to the company's account. It is a single advance. The loan may be repaid in installments, the interest will be charged on the outstanding balance.

   b. **Overdraft:** In this case, the company is allowed to withdraw more than the balance standing in its Bank account. However, a fixed limit is stipulated by the Bank beyond which the company will not be able to overdraw the account. Granting assistance in the form of overdraft presupposes the opening of a formal current account. Legally, the overdraft is demand assistance given by the bank i.e. bank can ask for the repayment at any point in time. Overdraft is given by the bank for a very short period, at the end of which the company is supposed to repay the same. Interest is payable on the actual amount drawn and is calculated on a daily product basis.

   c. **Cash Credit:** In practice, the operations in cash credit facilities are similar to those of overdraft facilities except for the fact that the company does need not have a formal current account. Here also a fixed limit is stipulated beyond which the company is not able to withdraw the amount. Legally, cash credit also is a demand facility, but in practice, it is continuous. Here also, the interest is payable on the actual amount drawn and is calculated on a daily product basis.

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d. **Bills purchased/discounted:** This form of assistance is comparatively of recent origin. This facility enables the company to get immediate payment against the credit bills/invoices raised by the company. The bank holds the bills as a security till the payment is made by the customer. The entire amount of the bill is not paid to the company. The company gets only the present worth of the amount of the bill, the difference between the face value of the bill and the amount of assistance is in the form of discount charges. However, on maturity, the bank collects the full amount of the bill from the customer. While granting this facility to the company, the bank inevitably satisfies itself about the creditworthiness of the customer and the genuineness of the bill. A fixed limit is stipulated in the case of the company, beyond which the bills are not purchased or discounted by the bank.

e. **Working Capital Term Loans:** To meet the working capital needs of the company, banks may grant the working capital term loans for a period of 3 to 7 years, payable in yearly or half-yearly installments.

f. **Export Credit:** This type of assistance may be considered by the bank to take care of specific needs of the company when it receives some export order. Packing credit is a facility given by the bank to enable the company to buy/ manufacture the goods to be exported. If the company holds a confirmed export order placed by the overseas buyer or an irrevocable letter of credit in its favor, it can approach the bank for a packing credit facility. A Packing credit facility may take two forms:

   - Pre-shipment Packing Credit: To take care of the needs of the company before the goods are shipped to the overseas buyer.
   - Post-shipment Packing Credit: To take care of the needs of the company from the shipment of goods to the overseas buyer till the date of collection of dues from him.

Necessarily, both these facilities are short-term facilities. The company may be required to repay the same within a predecided span or out of the export proceeds of the goods exported.

VARIOUS COMMITTEES ON WORKING CAPITAL

It can be seen from the preceding discussions that commercial banks play a very significant role in financing working capital needs. This working capital needs to be used to be met mainly in the form of cash credit facilities and these advances are used to b security-oriented rather than end-user-oriented. As such, the units which were able to provide securities to the banks were able to get the main chunk of the finances provided by the banks whereas others experienced a shortage of inputs, lower capacity utilization, high cost of production, and ultimately the threat of closure. Reserve Bank of India has attempted to identify major weaknesses in the system of financing of working capital needs by Banks to control the same properly. These attempts were mainly in the form of the appointment of the following committees.

a. Dahejia committee

b. Tandon committee

c. Chore Committee

d. Marathe Committee

e. Nayak Committee and Vaz Committee

a. Dahejia committee: This committee was appointed in October 1968 to examine the extent to which credit needs of industry and trade are likely to be inflated and how such trends could be checked.

Findings: The committee found out that there was a tendency of industry to avail of short-term credit from Banks over the growth rate in production for inventories in value terms. Secondly, it found out that there was a diversion of short-term bank credit for the acquisition of long-term assets. The reason for this is that generally, banks granted working capital finance in the form of cash credit, as it was easy to operate. Banks took into consideration security offered by the client rather than assessing the financial position of the borrowers. As such, cash credit facilities granted by the banks were not utilized necessarily for short-term purposes.

Recommendations: The committee, firstly, recommended that the banks should not only be security-oriented, but they should take into consideration the total financial position of the client. Secondly, it recommended that all cash credit accounts with banks should be bifurcated into two categories.

- Hardcore which would represent the minimum level of raw materials, finished goods, and stores which any industrial concern is required to hold for maintaining a certain level of production and
- Short-term component which would represent funds for temporary purposes i.e., Short-term increase in inventories, tax, dividend and bonus payments, etc.

It also suggested that the hardcore part in the case of financially sound companies should be put on a term loan basis subject to the repayment schedule. In other cases, borrowers should be asked to arrange for long-term funds to replace bank borrowings.

In practice, the recommendations of the committee had only a marginal effect on the pattern and form of banking.

b. Tandon Committee: Covered separately in this unit under subsection 4.17.

c. Chore Committee: In April 1979, the Reserve Bank of India appointed a study group under the chairmanship of Mr. K.B. Chhore to review mainly the system of cash credit management policy by banks.

The observations and recommendations made by the committee can be discussed as below:

- The committee has recommended increasing the role of short-term loans and bill finance and curbing the role of cash credit limits.

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- The committee has suggested that the borrowers should be required to enhance their contribution to working capital. As such, they should be placed in the Second Method of lending as suggested by Tandon Committee. If the actual borrowings are more than maximum permissible borrowings as permitted by Method II, the excess portion should be transferred to Working Capital Term Loan (WCTL) to be repaid by the borrower by half-yearly installment's maximum within 5 years. Interest on Working Cap 'TI. should normally be more than interest on the cash credit facility.
- The committee has suggested that there should be attempts to inculcate more discipline and planning consciousness among the borrowers, their needs should be met based on quarterly projections submitted by them. Excess or underutilization beyond the tolerance limit of 10% should be treated as irregularity and corrective action should be taken.
- The committee has suggested that the banks should appraise and fix separate limits for normal non-peak levels and also peak levels. It should be done in respect of all borrowers enjoying the banking credit limits of more than Rs. 10 Lakhs.
- The committee suggested that the borrowers should be discouraged from approaching the banks frequently for ad hoc and temporary limits over limits to meet unforeseen contingencies. Requests for such limits should be considered very carefully and should be sanctioned in the form of demand loans or non-operating cash credit limits. Additional interest of 1 % p.a. should be charged for such limits.

d. Marathe Committee: In 1982, the Reserve Bank of India appointed a study group known as Marathe Committee to review the Credit Authorization Scheme (CAS) which was in existence since 1965. Under CAS, the banks were required to take the prior approval of RBI for sanctioning the working capital limits to the borrowers. As per Marathe Committee recommendations, in the year 1988, CAS was replaced by Credit Monitoring Arrangement (CMA) according to which the banks were supposed to report to RBI, sanctions or renewals of the credit limits beyond the prescribed amounts for the post-sanction scrutiny.

e. **Nayak Committee:** Covered separately in this unit under subsection 4.18

4.17 TANDON COMMITTEE RECOMMENDATIONS

In August 1975, the Reserve Bank of India appointed a study group under the Chairmanship of Mr. P. L. Tandon, to make the study and recommendations on the following issues:

a. Can the norms be evolved for current assets and for the debt-equity ratio to ensure minimum dependence on bank finance?

b. How the quantum of bank advances may be determined?

c. Can the present manner and style of lending be improved?

d. Can adequate planning, assessment, and information system be evolved to ensure a disciplined flow of credit to meet genuine production needs and its proper supervision?

The observations and recommendations made by the committee can be considered as below:

Methods of Borrowings: The committee recommended that the amount of bank credit should not be decided by the capacity of the borrower to offer security to the banks but it should be decided in such a way to supplement the borrower's resources in carrying a reasonable level of current assets about his production requirement. For this purpose, it introduced the concept of working capital gap i.e., the excess of current assets over current liabilities other than bank borrowings. It further suggested three progressive methods to decide the maximum limits according to which banks should provide the finance.

The method I: Under this method, the committee suggested that the Banks should finance maximum to the extent of 75% of the working capital gap, the remaining 25% should come from long-term funds i.e., own funds and term borrowings.

Method II: Under this method, the committee suggested, that the borrower should finance 25% of current assets out of long-term funds and the banks provide the remaining finance.

Method III: Under this method, the committee introduced the concept of core current assets to indicate the permanent portion of current assets and suggested that the borrower should finance the entire amount of core current assets and 25% of the balance current assets out of long-term funds and the banks may provide the remaining finance.

To explain these methods in further detail, let us consider the following data:

Current Assets Rs.400. Core Current Assets Rs.100. Current Liabilities Rs.80 (Except bank borrowings)

The maximum amount of bank finance can be decided as below:

Method I

Current Assets	400
Less: Current Liabilities (except bank borrowings)	80
Working Capital Gap	320
25% of above from Own Sources	80
Maximum Permissible Bank Finance (MPBF)	240
Current Ratio	1.25

Method II

Current Assets	400
25% of above from Own Sources	100
Working Capital Gap	300

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Less: Current Liabilities (except bank borrowings)	80
Maximum Permissible Bank Finance (MPBF)	220
Current Ratio	1.33

Method III

Current Assets	400
Less: Core Current Assets from Own Sources	100
Other Current Assets	300
25% of above from Own Sources	75
Working capital gap	225
Less: Current Liabilities (except bank borrowings)	80
Maximum Permissible Bank Finance (MPBF)	145
Current Ratio	1.77

It can be observed from above that the gradual implementation of these methods will reduce the dependence of borrowers on bank finance and improve their current ratio. The committee suggested that the borrowers should be gradually subjected to these methods of borrowings from first to third. However, if the borrower is already in the second or third method of lending, he should not be allowed to slip back to the first or second method of lending respectively. It was further suggested that if the actual bank borrowings are more than the maximum permissible bank borrowings, the excess should be converted into a term loan to be amortized over a suitable period depending upon the cash-generating capacity.

Tandon Committee

Maximum Permissible Bank Finance (MPBF)

1st	Method:	0.75×(CA-CL)
2nd	Method:	(0.75×CA)-CL
3rd	Method:	(0.75 ×(CA-CCA)-CL)

Example:

Current Assets Rs. 100. Current Liabilities Rs.60 Lacs. Core Current Assets Rs.8

1st	Method:	0.75 × (100-60)	= 30 Lacs
2nd	Method:	(0.75×100)-60	= 15 Lacs
3rd	Method:	(0.75 × (100-8)-60)	= 9 Lacs

4.18 NAYAK COMMITTEE

Recently, RBI has accepted the recommendations made by Nayak Committee. This was to recognize the contribution made by the SSI Sector to the economy.

According to Nayak Committee recommendations, for evaluating working capital requirements of village industries, tiny industries, and other SSI units having the total fund-based working capital limits up to Rs. 50 Lakhs, the norms for inventory and receivables as suggested by Tandon Committee will not apply. The working capital requirement of these units will be considered to be 25% of their projected turnover (for both new as well as existing units), out of which 20% is supposed to be introduced by the units as their margin money requirements and the remaining 80% can be financed by the bank. In other words, there are 4 working capital cycles assumed every year.

Viz Committee has extended the recommendations of the Nayak Committee to all the business organizations. This has also been accepted by RBI.

As a result of Nayak Committee and Viz Committee recommendations, projected turnover of the borrowers is the basis for evaluating the working capital requirement. Out of the projected turnover, 5% is supposed to be introduced by the borrower in the form of own contribution, and the remaining 20% can be financed by the bank. The requirement of working capital has nothing to do with the level of current assets and current liabilities, which was the basis of the Tandon Committee and Chore Committee recommendations.

The working capital requirement of SSI units will be considered to be 25% of their projected turnover. Out of which 20% of Working Capital (It means 5% of turnover) is supposed to be introduced by the units as their margin money requirements and the remaining 80% of Working Capital (It means 20% of turnover) can be financed by the bank.

EXAMPLE:

Project Scale	Rs. 100 crores
Working capital requirement:	Rs.25 crores. (25%otTumovcr)
Margin to be brought by the firm:	Rs. 5 crores. 20% of Working Capital (5% of turnover)
Eligible Bank finance	Rs.20 crores 80% of Working Capital (20% of turnover)

Evaluation of working capital requirements by the banks relaxed. To give greater autonomy to the banks while evaluating working capital requirements, RBI has officially withdrawn the concept of MBPF with effect from 15th April 1997. As a result of this, now the banks are free to have their methods for evaluating the working capital requirement of the borrowers.

4.19 ASSESSMENT OF WORKING CAPITAL REQUIREMENT

First, you have to estimate the figures for various components of Current Assets and take the total of the same (A). Then you have to estimate the figures for various components of Current Liabilities and take the total of the same (B). The difference between the Current Assets and Current Liabilities will be Net Working Capital Required (C). Add Contingency

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of about 10% to meet the unforeseen expenses or rise in prices (D). You will get Working Capital Required.

Format for calculating WC requirements

(A)		Current Assets	Amount
	1)	Raw Material	
	2)	Work in Process	
	a	Raw Material	
	b	Labour cost 50%	
	c	Other Manufacturing expenses 50%	
		Work in Process Total	
	3)	Finished Goods	
	4)	Debtors	
	5)	Cash Balance	
	6)	Other Current Assets	
		Total Current Assets (A)	
(B)		Current Liabilities	
	1)	Creditors	
	2)	Outstanding wages	
	3)	Outstanding Overheads	
	4)	Other Current Liabilities	
		Total Current Liabilities (B)	
(C)		Net Working Capital Required (A-B)	
(D)		Contingency	
(E)		Working Capital Required (C+D)	

EXAMPLE:

Elements of cost Amount per unit
Raw material 80
Direct Labor 30
Overheads 60

Raw materials are in stock for one month. Credit allowed by suppliers is one month.

Credit allowed to customers in two months. 25% sales in cash

Lag in payment of wages and overheads one month.

Materials are in process for an average of half month.

Finished Goods are in stock for an average of one month

Cash in hand and at the bank is expected to be Rs. 25,000.

You are requested to calculate the working capital needed to finance a level of activity of 96,000 units.

Answer:

(A)	Current Assets			
	1)	Raw Material	8000 units X Rs. 80 X 1 Month	6,40,000
	2)	Work in Process	8000 units X Rs. 125X0.5 Month	5,00,000
	3)	Finished Goods	8000 units X Rs. 170 X 1 Month	13,60,000
			6,000 units X Rs. 170 X 2 Months	20,40,000
	Debtors			25,000
	Cash Balance			45,65,000
(B)	Current Liabilities			
	1)	Creditors	8000 units X Rs. 80 X 1 Month	6,40,000
	2)	Outstanding wages	8000 units X Rs. 30 X 1 Month	2,40,000
	3)	Outstanding Overheads	8000 units X 60 XI Month	4,80,000
				13,60,000

(C) Net Working Capital Required (A-B) 32,05,000

4.20 WORKING CAPITAL RATIOS

The term 'ratio' implies an arithmetical relationship between two related figures. The 'Ratio Analysis' is a technique for the interpretation of financial statements based on the computation of various ratios.

The following are the important ratios

1. Current Ratio
2. Liquid Ratio or Acid Test Ratio or Quick Ratio
3. Working Capital Turnover Ratio
4. Inventory/Stock Turnover Ratio
5. Debtors Turnover Ratio
6. Current Assets Turnover Ratio

1. Current Ratio: It is calculated as Current Assets/Current Liabilities

Current Assets include cash in hand or at the bank, marketable securities, sundry

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debtors, bills receivables, inventories, prepaid expenses, and short-term loans and advances given and accrued income

Current liabilities include sundry creditors, bills payable, outstanding expenses, bank overdraft or cash credit provisions for dividend, provision for tax, and advances received.

The Benchmark for the Current Ratio is 2:1. However, the banks follow a ratio of 1.33:1. Most efficient companies have a ratio less than 2:1. Hence the benchmark of 2.1 is debatable.

The current Ratio needs to be within a range of 1.25 to 1.75. A high ratio does not necessarily mean the efficiency of the company. No recovery of debtors, maintaining high cash on hand or bank balance, maintaining excess stock may result in a higher current ratio. A low ratio means the inability of the company to meet its short-term payment obligations.

2. **Liquid Ratio or Acid Test Ratio or Quick Ratio:** It is an improved version of the current ratio. It is calculated as Liquid Assets/Liquid Liabilities or (Current Assets-Inventory-Prepaid Expenses)/ (Current Liabilities-Bank Overdraft/cash credit) Liquid Assets include all current assets except inventories and prepaid expenses. Liquid Liabilities include all current liabilities except bank overdraft or cash credit. Bench Mark for Quick Ratio is 1:1. A higher ratio is preferable. It should not be too high.
3. **Working Capital Turnover Ratio:** It is calculated as Net sales/Working capital A high working capital turnover ratio indicates the capability of the organization to achieve maximum sales with the minimum investment in working capital. It indicates that working capital is turned over in the form of sales a greater number of times. As such, the higher this ratio, the better will be the situation.
4. **Inventory/Stock Turnover Ratio:** It is calculated as Net Sales/Average inventory

   Average inventory may be computed as (Opening inventory + inventory at the end of every month)/13

   For convenience, inventory may be computed as under (**Opening inventory + closing inventory)/2**

   There can be no standard inventory turnover ratio which may be considered to be ideal. It may depend on the nature of the industry. Benchmark can be taken as 4.

   A high inventory turnover ratio indicates that maximum sales turnover is achieved with the minimum investment in inventory. As such, as a general rule, a high inventory turnover ratio is desirable. On the other hand, a low inventory turnover ratio may indicate over-investment in inventory, the existence of excessive or obsolete/nonmoving inventory, improper inventory management, accumulation of inventories at the year-end in anticipation of increased prices, or sales volume in near future, and so on.
5. **Debtors Turnover Ratio:** It is calculated as Net Credit Sales/ Average Sundry Debtors This ratio indicates the speed at which the sundry debtors are converted in the form of cash. however, this intention is not correctly achieved by making

the calculations in this way. As such, this ratio is normally supported by the calculations of the Average Collection Period, which is calculated as below.

a. Calculation of daily sales: Net Credit Sales/No. of working days

b. Calculation of average collection period: Average Sundry debtors/Daily sales.

Credit sales should be considered normal. Total sales may be considered if break up of cash sales and credit sales is not available

The average collection period as computed above should be compared with the normal credit period extended to the customers. If the average collection period is more than the normal credit period allowed to the customers, it may indicate over-investment in debtors which may be the result of overextension of credit period, liberalization of credit terms, ineffective collection procedures, and so on.

EXAMPLE: Net credit sales: Rs. 1,80,000/-. Average sundry debtors: Rs.3 6,000/-

The computation of the average collection period will be made as below:

(a) Calculation of daily sales:

Net credit sales/No. of working days

= Rs. 1,80,000/360 = Rs. 500/per day

(b) Calculation of average collection period:

Average sundry debtors/Daily sales

= Rs. 36,000/Rs. 500= 72 days.

The average collection period thus calculated may then be compared with the normal credit period allowed to the customers i.e., 60 days and the conclusion may be drawn that there is a delay in collecting the due.

6. **Current Assets Turnover Ratio:** It is calculated as Net Sales/Current Assets A high current assets turnover ratio indicates the capability of the organization to achieve maximum sales with the minimum investment in current assets. Higher the current assets turnover ratio better will be the profitability.

EXAMPLE: Vishal Private Limited sells goods on a gross profit of 25%. Depreciation is considered in the cost of production. The following are the annual figures given to you.

	Rs.
Sales (Two month's credit)	1,80,000
Materials consumed (one month's credit)	4,50,000
Wages paid (one month lag in payment)	3,60,000
Administration expenses (one month lag in payment)	1,20,000
Sales Promotion expenses (paid quarterly in advance)	60,000

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Cash Manufacturing Expenses	4,80,000	
Cash Manufacturing Cost	12,90,000	
Balance		
Manufacturing Cost (A)	13,50,000	
less: Cash Manufacturing Cost (B)	12,90,000	
Depreciation	60,000	
(b) Total Cash Cost: Cash Manufacturing Cost (As per B above)	12,90,000	
Administrative Expenses	1,20,000	
Sales Promotion Expenses	60,000	
Total cash cost	14,70,000	

(c) Income Tax liability of the company will not be considered as a part of the cost.

EXAMPLE: The management of Vishal Industries has called for a statement showing the working capital needs to finance a level of activity of 1,80,000 units of output for the year. The cost structure for the company's product for the above-mentioned activity level is detailed below.

Cost per Unit (Rs.)	20
Raw Materials	5
Direct Labor	15
Overheads (including depreciation of Rs. 5 per unit)	40
Profit	10
Selling Price	50

Additional Information:

a. Minimum desired cash balance is Rs. 20,000.

b. Raw materials are held in stock on an average for two months.

c. Work in progress (assume 50% completion stage) will approximate to half a month's production.

d. Finished goods remain in a warehouse on an average for a month.

e. Suppliers of materials extend a month's credit and debtors are provided two months' credit. Cash sales are 25% of total sales.

f. There is a time-lag in payment of wages of a month and a half and a month in case of overheads.

From the above facts, you are required to:

- Prepare a statement showing working capital needs.
- Determine the maximum working capital finance available under the first two methods suggested by Tandon Committee:

Current Assets
Raw Materials 15000 units * Rs. 20*2Mths.
Work-in-Progress Finished Goods 15000units * Rs. 35*1/Mth. *1/2
Finished Goods 15000units * Rs. 35*1Mth.
Sundry Debtors Cash Balance 15000units * Rs. 35*2Mths. *75%

Current Liabilities:	
Sundry Creditors 15000 units x Rs. 20 x 1 Mth.	3,00,000
Outstanding Wages 15000 units x Rs. 5x1 Mth.	75,000
Outstanding Overheads 15000 units x Rs. 10x1/2 Mth.	75,000
(C) Working Capital (A-B)	4,50,000 16,13,750
Calculation of Maximum Permissible Bank Borrowing (A) Method:	
Current Assets	20,63,750.00
Less: Current Liabilities	4,50,000.00
Working Capital Gap	16,13,750.00
Own contribution (i.e., 25% of Working Capital Gap)	4,03,437.50
Maximum Permissible Bank Finance	12,10,312.50
(B) Method II:	
Current Assets	20,63,750.00
Less: Own Contribution	5,15,937.50
(i.e., 25% of Current Assets)	
Less: Current Liabilities	15,47,812.50 4,50,000.00

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Maximum Permissible Bank Finance	10,97,812.50
Means of Finance	
Method I	Method II
Current Liabilities 4,50,000.00	4,50,000.00
Bank Finance 12,10, 312.50	10,97,812.50
Own Contribution 4,03,437.50	5,15,937.50
20,63,750.00	20,63,750.00

Working Note:
It is assumed that the year consists of 360 days and that sales are evenly distributed throughout the year. As such, monthly sales will be 15000 units.

4.21 MEANING AND IMPORTANCE OF WORKING CAPITAL MANAGEMENT

Working Capital Management means efficient management of components of Current Assets and Current Liabilities. The basic objective of Working Capital Management is to avoid over-investment or under-investment in Current Assets, as both, extremes involve adverse consequences. Overcover-investment current assets may lead to the ced profitability due to cost of funds blocked, extra storing space required, extra efforts for follow up and recovery required, the possibility of malpractice, etc. The objective of Working Capital Management is to ensure Optimum Investment in Current Assets. In other words, Working Capital Management intends to ensure that the investment in Current Assets is reduced to the minimum possible extent. However, the normal operations of the organization should not be affected adversely.

Components of Current Assets

1. Cash on Hand
2. Balance in Bank a/cs
3. Raw materials
4. Work in Process
5. Finished Goods/Stock
6. Debtors/Receivables
7. Advances paid.
8. Prepaid Expenses
9. Accrued Income
10. Other Current Assets

Components of Current Liabilities

1. Cash Credit from Bank

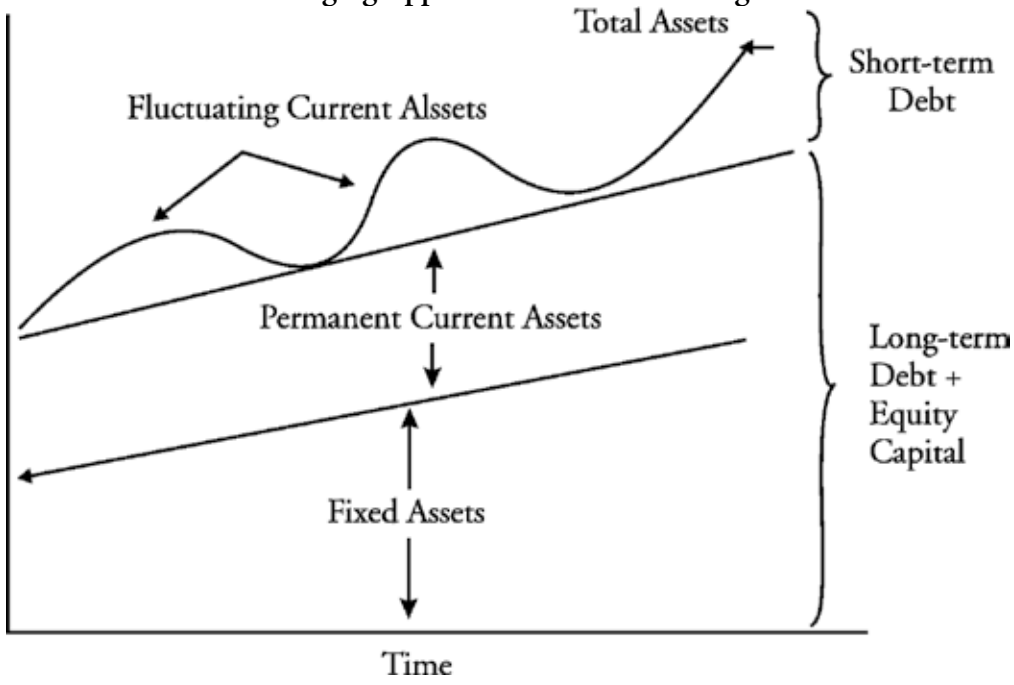
2. Instalments of Term Loans payable within 12 months
3. Outstanding liabilities towards Credit Purchases (Creditors)
4. Provision for Expenses.
5. Provision for Dividend/Tax
6. Income Received in Advance
7. Other Liabilities payable within one year.

Current assets mainly comprise Inventory, Debtors (Receivables), and Cash. Hence, working capital management can be said to be the management of Cash, Debtors (Receivables), and Inventory (Material).

The Hedging Approach to Working Capital:

- Hedging approach refers to a process of matching maturities of debt with the maturities of financial need. In this approach maturity of the source of the fund should match the nature of the asset to be financed
- This approach is also known as the matching approach.
- The hedging approach suggests that the permanent working capital requirement should be financed with funds from long-term sources while the temporary working capital requirement should be financed with short-term funds.

Hedging Approach to Asset Financing



Conservative Approach to Working Capital

This approach suggested that the entire estimated investments in the current assets should be financed from long term sources and the short terms should be used only for emergency requirement.

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Aggressive Approach to Working Capital

The aggressive approach suggests that the entire estimated requirement of the current asset should be financed from short-term sources and even a part of fixed asset investment be financed from short-term sources.

4.22 CASH MANAGEMENT

Management of cash is one of the most important areas of overall working capital management. This is because cash is the most liquid type of current asset. As such, it is the responsibility of the finance function to see that the various functional areas of the business have sufficient cash whenever they require the same. At the same time, it has also to be ensured that the funds are not blocked in the form of idle cash, as the cash claiming, idle also involves cost in the form of interest cost and opportunity cost. As such, the management of cash has to find a mean between these two extremes of shortage of cash as well as idle cash.

A company may hold the cash with the various motives as stated below:

1. **Transaction Motive:** The company may be required to make various regular payments like purchases, wages/salaries, various expenses, interest, taxes, dividends, etc. for which the company may hold the cash. Similarly, the company may receive the cash basically from its sales operations. However, receipts of the cash and the payments by cash may not always match with each other. In such situations, the company will like to hold the cash to honor the commitments whenever they become due. This requirement of cash balances to meet routine needs is known as transaction motive.
2. **Precautionary Motive:** In addition to the requirement of cash for routine transactions, the company may also require the cash for such purposes which cannot be estimated or foreseen. E.g., There may be a sudden decline in the collection from the customers, there may be a sharp increase in the prices of the raw materials, etc. The company may like to hold the cash balance to take care of such contingencies and unforeseen circumstances. This need for cash is known as a precautionary motive.
3. **Speculative Motive:** The Company may like to hold some reserve kind of cash balance to take the benefit of favorable market conditions of some specific nature. E.g., Purchases of raw material available at low prices on the immediate payment of cash purchase of securities if interest rates are expected to increase, etc. This need to hold the cash for such purposes is known as a speculative motive.

ESTIMATING THE CASH REQUIREMENTS

As has been discussed in the preceding paragraphs, the company should hold an adequate cash balance but should necessarily avoid excessive balances. For this purpose, the company is required to assess its need for cash properly. For these purposes, one of the best tools available with the company is to prepare the cash budget. A cash budget is a statement showing the various estimated sources of cash receipts on one hand and the various applications of cash on another hand. Thus, by preparing the cash budget, the

company may predict whether at any point in time there is likely to be excess or shortage of cash. If the shortage of cash is estimated, the company has to arrange the cash from some other source. If the excess of cash is estimated, the company may explore the possibility of investing the cash balance profitably.

Before preparing the cash budget, the following principles must be kept in mind.

1. The period for which the cash budget is to be prepared should be selected very carefully. There is no fixed rule as to the period to be covered by the cash budget. It depends on the company and individual circumstances. As a general rule, the period to be covered by the cash budget should neither be too long nor too short. It is too long; the estimates may be inaccurate. If it is short, the areas which are beyond the control of the company will not be given due consideration.
2. The items which should appear in the cash budget should be carefully decided. Naturally, all those items which do not have bearing on the cash flows will not be considered while preparing the cash budget. E.g., As the cost in the form of depreciation does not involve any cash outflow, it does not affect the cash budget, though the amount of depreciation affects the determination of the tax liability which involves cash outflow.

While preparing the cash budget, the various items appearing in the same may be classified under the following two categories.

- **Operating cash flows**: These are the items of cash flow that arise as the result of regular operations of the business.
- **Non-Operating cash flows:** These are the items of cash flow that arise as the result of other operations of the business.

The standard items which may appear on a standard cash budget may be stated as below.

Cash Inflow	Cash Outflow
Operating	Operating
Cash Sales	Payment to creditors
Collection from debtors	Purchases of raw material
Interest/Dividend Received	Wages/Salaries
	Various kinds of overheads
Non-Operating	Non-Operating
Issue of shares/debentures	Redemption of shares/debentures
Receipt of loans/borrowings	Loan Instalments
Sale of Fixed Assets	Purchase of Fixed Assets
	Interest
	Taxes
	Dividends

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PRINCIPLES OF CASH MANAGEMENT

The basic objective of cash management is to reduce the operating cash requirement to the minimum possible extent without affecting the routine transactions. In particular, the objectives of cash management can be stated as below:

1. **Accelerate Cash Collections:** This can be done with the help of the following techniques.
    a. As far as possible insist upon the payment from the customer in the safe modes like demand drafts, letters of credit, pre-accepted sundries/bills of exchange, etc. This may reduce the bank float.
    b. To ensure prompt payment from customers, a self-addressed envelope can be sent along with the bill/invoice itself. Allowing cash discounts is the best possible way to induce the customer to make prompt payments.
    c. In the case of the outstation customers, faster means of communications can be used to reduce the postal float to the minimum possible extent. E.g., Courier Services Speed Post, etc.
    d. Decentralized Collection: In the case of the company which has branches at different places, the company can establish decentralized collection centers. The customers in a certain area are required to make the payment at the local collection center and the cheques collected by the local collection center are deposited in the local bank account. The balance in the local bank account beyond a predetermined level may be transferred to the central or head office bank account at periodic intervals. The decentralized collections may be useful for reducing the postal float as well as bank float.
    e. Lock Box System: Under this arrangement, the company hires a post office box at important collection centers. The customers are instructed to make the payment directly to the lockbox. The local bankers of the company are authorized to pick up the cheques from the lockbox. After crediting the cheques to the company's account, the bank informs the company about the details of the cheques credited. The lockbox systems reduce the postal float as well as bank float. The clerical work of handling the cheques before deposits are performed by the banker and the process of collection of cheques can be started immediately on the receipt of the cheque from the customer.

    It should be noted in this connection that both the above systems of decentralized collections as well as lockbox systems, help to reduce deposit float but at the same it involves cost. Before taking any decision in this connection, it is necessary to carry out a cost-benefit analysis to ensure that the funds released due to speedy collections justify the additional costs.
2. **Delay Cash Payments:** This can be done with the help of the following techniques.
    a. Payments can be made from a bank that is distant from the bank of the company to which payment is to be made. This may increase the postal float and bank float.

b. Attempts should be made by the company to get the maximum credit for the goods or services supplied to it. E.g., In the case of wages payable to the workers, the company gets the services in advance which are to be paid for later. Thus, they provide the credit to the company for the period after which they are paid, say a week or a month. As such, if the company can make monthly payments of wages rather than weekly payments of wages, it can enjoy extended credit, slow down the payments, and reduce the requirement of operating cash balance.

c. Avoid Early Payments: If according to the terms of credit available to the company, it is required to make the payment within the stipulated period, it should not make the payment before the specified date unless the company is entitled to cash discounts. The delay in making the payment beyond the stipulated time may affect the credit standing of the company.

d. Centralized Disbursements: Under these methods, the payments are made by the Head Office of the company from its central bank account. This involves the benefits mainly in three respects as compared to decentralized payments. Firstly, it increases the transit time. E.g., If the creditor at Madras is to be paid out of the Central bank account of the company in Delhi, it increases the postal float as well as the bank float, which is ultimately beneficial for the company. Secondly, if the company decides to make decentralized payments by maintaining various bank accounts at various branches, it will be necessary for it to maintain a minimum cash balance at all these bank accounts, whereas in the case of a centralized disbursement system, the problem of maintaining a minimum cash balance will be only in case of a central bank account. Thirdly, maintaining the bank accounts at different branches may prove to be administratively difficult.

e. In the case of a company operating on a decentralized basis, the arrangements can be made in such a way that the local branches are authorized to deposit the cheques in the local bank accounts but are not authorized to withdraw the amounts from there. This facilitates speedy collections as well as ensures proper control over the disbursements from the bank accounts.

f. It may not be necessary for the company to arrange for the funds immediately after it issues the cheque. If it is possible to analyze the time lag in the issue of cheques and their presentation for payment, which is possible based on experience, the company may make arrangements for funds only on the expected date of presentation of a cheque for payment.

3. **Maintenance of Optimum Cash Balance:** As stated earlier, maintenance of a cash balance that is more than the requirement and less than the requirement involves the consequences. As such, one of the basic objectives of cash management is to maintain the optimum cash balance. One of the tools available to the company to ensure the maintenance of optimum cash balance is to prepare the cash budget. By properly preparing the cash budget, the company can have an idea in advance of the timing and quantum of excess availability of cash or shortage of cash. Accordingly,

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the company can decide on investment of excess cash on a short-term basis (in case of excess cash available) or meet the shortfall (in case of shortage of cash).

4. **Investment of Excess Cash Balance:** As stated earlier, one of the basic objectives of cash management is to optimize cash investment. The company cannot afford to keep the excess cash balance idle as it involves the opportunity cost. As such, one of the basic objectives of cash management requires the company to think about the possibility of investing the excess cash balance on a short-term basis.

   The avenues available to the company to invest the excess cash balance on a short-term basis may be in various forms. E.g., Inter-corporate loans/deposits, intercorporate bills discounting, stock market operations, commercial paper, bank deposits, etc. However, the final selection of the avenue for investing the cash balance may depend upon various factors.

   a. **Return**: The basic factor affecting any investment decision is essentially in the form of return on investment. Higher the return, the better the investment.

   b. **Risk:** Risk and return always go hand in hand. High return investments may involve high risk. While selecting the investment yielding a high return, the company should take into consideration the risk involved with the proposition.

   c. **Liquidity:** In some cases, it may be necessary to sell the investment before maturity due to unexpected cash needs. Under these circumstances, liquidity associated with the investment becomes an important criterion to formulate the investment policy.

   d. **Legal requirements**: Some organizations may be subjected to certain legal requirements before they can select their investment portfolio. E.g., Public charitable trusts, cooperative societies, etc. These organizations are required to invest their funds in certain specified forms.

EXAMPLE: A Private Limited Company is formed to take over a running business. It has decided to raise Rs. 55 lakhs by the issue of Equity Shares and the balance of the capital required in the first six months is to be financed by a financial institution against an issue for Rs. 5 lakhs, 8% Debentures (Interest payable annually) in its favor.

Initial outlay consists of:

Freehold premises	Rs. 25 Lakhs
Plant & Machinery	Rs. 10 Lakhs
Stock	Rs. 6 Lakhs
Vehicle & Other items	Rs. 5 Lakhs

Payments on the above items are to be made in the month of incorporation. Sales during the first 6 months ending on 30th June are estimated as under:

January	Rs. 14 Lakhs	April Rs. 25 Lakhs
February	Rs. 15 Lakhs	May Rs.26.50Lakhs
March	Rs. 18.50 Lakh	June Rs. 28 Lakhs
Lag in payment	- Debtors 2 Months	
	- Creditors 1 Month	

OTHER INFORMATION:

1. Preliminary expenses Rs. 50,000 (Payable in February).
2. General Expenses Rs. 50,000 p.m. (Payable at the end of each month).
3. Monthly wages (Payable on 1st day of next month) Rs. 80,000 p.m. for the first 3 months and Rs. 95,000 p.m. thereafter.
4. Gross profit rate is expected to be 20% on sales.
5. The shares and debentures are to be issued on 1st January.
6. The stock levels throughout are to be the same as the outlay.

Prepare a cash budget for the 6 months ended 30th June.

Solution:

Cash Budget (For 6 months ending 30th June) Rs. In Lakhs

	Jan.	Feb.	Mar.	Apr.	May	June
(A) Cash Inflow						
Issue of shares	55.00	—	—	—	—	—
Issue of Debentures	5.00	—	—	—	—	—
Collection from Debtors	-	—	14.00	15.50	18.50	25.00
	60.00	—	14.00	15.00	18.50	25.00
(B) Cash Outflow						
Fixed Assets	40.00	—	—	—	—	—
Stock (Initial)	0.00	—	—	—	—	—
Preliminary Expenses		0.50	—	—	—	—

Sundry Creditors -	10.40	11.20	14.00	19.05	20.25
General Expenses 0.50	0.50	0.50	0.50	0.50	0.50
Wages - 0.80	0.80	0.80	0.95	0.95	
46.50	12.20	12.50	15.30	20.50	21.70

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(C) Net Cash Inflows

i.e.(A-B)	13.50	(12.20)	1.50	(0.30)	(2.00)	3.30
Opening Balance:	—	13.50	1.30	2.80	2.50	0.50
+ Surplus for a month	13.50	(12.20)	1.50	(0.30)	(2.00)	3.30
Closing Balance	13.50	1.30	2.80	2.50	0.50	3.80

Working Notes:

1. It is assumed that the company is incorporated in January.
2. Assuming that the company is carrying on manufacturing operations, the purchase': ay for January is computed as below:

Sales of January	14.00
Less Gross Pre Pt @ 20%	2.80
Cost of good 1 old	11.20
Fewer wages annually	0.80
Purchases	10.40

A new one! Farted company 'Green Co. Ltd. wishes to prepare a cash budget from January spare a cash budget for the first 6 months from the following estimated revenue 1 expenditure.

Overheads Production Selling

Month	Total Sales	Material	Wages		Distribution
	Rs.	Rs.	Rs.	Rs.	Rs.
Jan.	20,000	20,000	4,000	3,200	800
Feb.	22,000	14,000	4,400	3,300	900
Mar.	24,000	14,000	4,600	3,300	800
Apr.	26,000	12,000	4,600	3,400	900
May	28,000	12,000	4,800	3,500	900
June	30,000	16,000	4,800	3,600	1,000

EXAMPLE: Cash balance on 1st January was Rs. 10,000

A new machine is to be installed at Rs. 30,000 on credit, to be repaid by two equal installments in March and April.

Sales Commission @ 5% on total sales is to be paid within the month following actual sales. Rs. 10,000 is the amount of the second call that may be received in March. Share premium amounting to Rs. 2,000 is also obtainable with 2nd call.

Period of credit allowed by suppliers	2 months
Period of credit allowed to customers	1 month
Delay in payment of overheads	1 month
Delay in payment of wages	1/2 month
Assume cash sales to be 50% of total sales.	

Solution:

Cash Budget of Green Co. Ltd.	Jan.	Feb.	Mar.	Apr.	May	June
(A) Cash Inflow						
Cash sales	10,000	11,000	12,000	13,000	14,000	15,000
Collection from Debtors	—	10,000	11,000	12,000	13,000	14,000
Share Capital (2nd Call)	—	—	10,000	—	—	—
Share Premium	—	—	2,000	—	—	—
	10,000	21,000	35,000	25,000	27,000	29,000
(B) Cash Outflows						
Sundry Creditors	—	—	20,000	14,000	14,000	12,000
Wage						
For current month	2,000	2,200	2,300	2,300	2,400	2,400
For last month	—	2,000	2,200	2,300	2,300	2,400
Production overheads	—	3,200	3,300	3,300	3,400	3,500
Selling & Distribution						
Overheads	—	800	900	800	900	900
Instalment for Machine						
Purchased	—	—	15,000	15,000	—	—
Sales Commission	—	1,000	1,100	1,200	1,300	1,400
	2,000	9,200	44,800	38,900	24,300	22,600

(C) Net Cash Inflows

Or Outflows (A-B)	8,000	11,800	(-)9,800	(-) 13,900	2,700	6,400
Opening Cash balance	10,000	18,000	29,800	20,000	6,100	8,800

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+ Surplus for month	8,000	11,800	(-)9,800	(-)l 3,900	2,700	6,400
Closing cash balance	18,000	29,800	20,000	6,100	8,800	15,200

Example: Prepare a cash budget for the quarter ended 30th September 1987 based on the following information.

Cash at the bank on 1st July 1987	Rs. 25,000
Salaries and Wages estimated monthly	Rs. 10,000
Interest Payable-August 1987	Rs. 5,000

	June	July	August	September	
	Rs.	Rs.	Rs.	Rs.	
Estimated cash sales	—	1,40,000	1,52,000	1,21,000	
Credit Sales	1,00,000	80,000	1,40,000	1,20,000	
Purchases	1,60,000	1,70,000	2,40,000	1,80,000	
Other expenses	—	20,000	22,000	21,000	

(Payable in the same month)

Credit sales are collected 50% in the month of sales made and 50% in the month following. Collection from credit sales is subject to a 5% discount if payment is received in the month of sales and 2.5% if payment is received in the following month.

Creditors are paid either on a prompt or 30 days basis. It is estimated that 10% of the

Creditors are in the prompt category.

Solution:

Cash budget				
(for quarter ending September 1987)				
		July	August	September
		Rs.	Rs.	Rs.
(a)	Cash lull			
	Cash sales	1,40,000	1,52,000	1,21,000
	Collection ii om debtors			
	Last month	48,750	39,000	68,250
	Current month	38,000	66,500	57,000
		2,26,750	2,57,500	2,46,250

(b)	Cash outflows			
	Sundry creditors			
	Prompt basis	17,000	24,000	18,000
	Others	1,44,000	1,53,000	2,16,000
	Salaries & wages	10,000	10,000	10,000
	Other expenses	20,000	22,000	21,000
	Interest	—	5,000	—
		1,91,000	2,14,000	2,65,000
(c)	Net cash inflows (a-b)	35,750	43,500	(18,750)
	Opening balance	25,000	60,750	1,04,250

+ Surplus for the month	35,750	43,500	(18,750)
Closing Balance	60,750	1,04,250	85,500

EXAMPLE: It is assumed that salaries and wages are paid in the same month. ABC Co. Ltd. wishes to arrange overdraft facilities with its bankers during the period April to June 1987 when it will be manufacturing mostly for stock. Prepare a cash budget for the above period from the following data, indicating the extent of the bank facility the company will require at the end of each month.

Month	Sales Rs.	Purchases Rs.	Wages Rs.
February	1,80,000	1,24,800	12,000
March	1,92,000	1,44,000	14,000
April	1,08,000	2,43,000	11,000
May	1,74,000	2,46,000	10,000
June	1,26,000	2,68,000	15,000

Additional Information:
All sales are credit sales, 50% of credit sales are realized in the month following the sales and the remaining 50% in the second month following.

Solution:

1. Creditors are paid in the month following the month of purchases.
2. Cash at Bank on 1.4.87 (Estimated) Rs.25,000.

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Cash Budget of ABC Co. Ltd.				
		April 87	May 87	June 87
(A)	Cash Inflows			
	Sundry Debtors			
	First 50%	96,000	54,000	87,000
	Second 50%	90,000	96,000	54,000
		1,86,000	1,50,000	1,41,000
		April 87	May 87	June 87
(B)	Cash (hit flows			
	Sundry Creditors	1,44,000	2,43,000	2,46,000
	Wages	11,000	10,000	15,000
		1,55,000	2,53,000	2,61,000
(O	Net Cash In flows or Outflows (A-B)	31,000	(-) 1,03,000	(-) 1,20,000
(D)	Estimated Cash surplus or shortage			
	opening, cash balance	25,000	56,000	047,000

Surplus/Deficit for the month 31,000 (-) 1,03,000 (-) 1,20,000

Closing cash balance 56,000 (-) 47,000 (-) 1,67,000

Note:
It can be seen that the company will be required to arrange for the bank finance of Rs. 47,000 at the end of May 1987 and an additional amount of Rs. 1,20,000 at the end of June 1987.

4.23 RECEIVABLES MANAGEMENT

Receivables or Debtors as Current Assets get created on account of the credit sales made by the company i.e., the company makes the sales to the customers but the customers do not make the payment immediately. Even if the customers do not pay the cash immediately, the company has to make credit sales to the customers to face the competition and also to attract new and potential customers to buy the goods or services from the company.

OBJECTS OF MANAGEMENT OF RECEIVABLES

As in the case of the general objective of working capital management, receivables management is also to achieve a tradeoff between risk and profitability. Receivables management aims to ensure optimum investment in receivables i.e., the investment in

receivables should be neither less nor more. If the objective of the company is to reduce the investment in receivables to the minimum extent, the company will not make any credit sales at all, as receivables are the result of credit sales made by the company. This will reduce the investment in receivables, but the company will suffer in terms of profitability as the customers will not buy from the company, particularly if the competitors offer credit to the customers. On the other hand, if the company makes credit sales to the customers to increase the sales and profitability, the company may be accepting the risk of bad debts, more collection efforts, etc. As such, the objective of receivables management is to increase the credit sales to such an extent that the risk of non-recoverable dues is reasonable and within control. As in the case of any other financial decisions, decisions regarding receivables management also involve cost-benefit analysis. Costs associated with the receivables management may be in the form of credit administration costs, cost of bad debts, and the opportunity cost of funds blocked in receivables. Benefits associated with the receivable management are naturally in the form of profits from the sales made on a credit basis. An effective receivables management policy tries to increase the credit sales to such an extent that the profits arising therefrom are more than the costs attached to it.

Receivables Management may be concerned with the following aspects –

1. **Credit Analysis:** Even though the company will intend to increase the profits by increasing sales, the company will not like to sell its products to any customer who comes to visit the way. For this purpose, the company has to decide the customers to whom it should sell its products on credit. The credit should be extended only to those customers whose creditworthiness is established. For deciding the creditworthiness of the customers, the company may consider various factors viz. analysis of the financial status of the customer, reputation of the customer, record of the previous dealing of the customer with the company, quality, and character of the management running the business of the customer, etc. For deciding the creditworthiness of the customer, the company may need information that may be available from the following sources.
    a. **Trade References:** The company can ask the prospective customer to give trade references. The company may insist that the references should be given of those names who are currently dealing with the company. The company in turn can obtain the information from these references, either by personal interview or by sending short questionnaires. While doing this, the honesty, seriousness, and integrity of the references should be examined.
    b. **Bank Reference:** The company can ask the prospective customer to instruct its banker to give the relevant information to the company. In this case, there may be two problems. Firstly, the banker of the prospective customer may not give clear answers to the inquiries made by the company. Secondly, even though the Bank of prospective customer certifies the proper conduct of the account, it may not mean that he will settle his dues of the company in time. As such, along with Bank references, other ways of obtaining the information should also be used.

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c. **Credit Bureau Reports:** The sources of trade references and bank references may be biased in some cases. In such cases, the credit bureau reports may be considered. In some cases, the associations for some specific industries maintain credit bureaus that may give useful and authentic information about their members.

d. **Financial Statements:** This is one of the easiest ways to obtain information about the creditworthiness of the prospective customer. If the prospective customer is a public limited company, there may not be any difficulty in getting the financial statements in the form of Profit and Loss Account and Balance Sheet. However, getting the financial statements may be difficult in the case of private limited companies or partnership firms.

e. **Past Experience:** This can be considered to be the most reliable source of getting information about the creditworthiness of the customer who is dealing with the company presently. If there is the question of extending further credit to the existing customer, the company should inevitably consider the experience while dealing with that customer.

f. **Salesmen's Interviews and Reports:** Many times, companies may depend upon the reports given by the sales personnel for evaluating the creditworthiness of the customers.

After the creditworthiness of the customer is ascertained, the next question is to decide the limit on the credit to be allowed to them, both in terms of amount and duration. The decision depends upon the number of anticipated sales, increased cost of monitoring and servicing the receivables, and the financial strength of the customer. If the customer is a frequent buyer of the goods of the company, a line of credit for selling may be established which means the maximum amount of credit that the company may extend. In such a case, the company need not investigate every order of the customer so long as it is within the limit of the line of credit. The line of credit granted for the customer should be reviewed periodically in light of the collection of the previous dues, specific requirements of the customer for the future, and so on.

2. **Credit Terms:** Credit terms indicate the terms on which the company should extend the credit to the customer. This involves the consideration of the following aspects,

   a. Credit Period

   b. Credit Limit

   c. Discount Policy

The credit period is the time allowed by the company to the customers to pay their dues. The duration of this credit period may depend upon various factors. One, in the case of the products having inelastic demand, the credit period may be small, however, if the demand is elastic, a small credit period may affect the quantum of sales. Two, the credit period may depend upon the nature of the industry. In the buyer's market, the company may be required to offer more credit periods. In the

seller's market, the company may afford to offer a smaller credit period. Further, it also depends upon the policies followed by the competitors. Three, decisions regarding the credit period may be affected by the management attitudes. If the management attitude is aggressive, it may offer more credit periods to increase sales and profits. However, if management attitude is conservative, it will like to restrict the credit period. Lastly, the credit period may depend upon the number of funds available and also upon possible bad debts losses. Naturally, the company will like to have a credit period as short as possible, whereas the customers will like to have a longer credit period. As such, by liberalizing its credit period, the company can attract new customers. However, the proposition of liberalizing the credit period may involve the consequences in the form of more investment in receivables, the possibility of bad debts losses, increased cost of monitoring and servicing the receivables, etc. As such, policy to liberalize the credit period should be viewed from this angle.

3. **Financing the Receivables:** Whichever sources are available to the company for financing the working capital requirement, are equally the sources available for financing the receivables. This is because receivables are a part of working capital. However, the following sources may be identified as the sources available for financing the receivables particularly.

   a. Bills Discounting

   b. Cash Credit against hypothecation of book debts as the security.

   c. Factoring.

4. **Credit Collection:** This indicates the steps taken by the company to collect the dues from the customer. For this purpose, the company may follow the standard practices of reminding the customer just before the due date. This can be done by sending reminder letters making telephone calls, or by paying personal visits.

   The customers who are slow paying should be handled properly. If they are permanent customers, they may object to harsh collection procedures and the company may lose them ultimately. If the slow-paying customer is facing some temporary funds problem, the company should understand the same. If there are some defaulting customers, the company should decide how many reminders should be sent and how each of them should be drafted. If these measures fail, the next step taken may be the personal call to these customers or the personal visit by the company's representative. If all these above courses of action fail, the company may decide to take legal action against the defaulting customer as a last resort.

   It is a very regular practice to offer cash discounts to the customers to speed up the credit collection process.

   While designing the credit collection policy, the following propositions should be remembered.

   a. Before deciding collection policies and procedures, it is essential to make a cost-benefit analysis. The costs are the administrative expenses associated with the collection policies and the benefits are the reduced bad debts losses and

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interest on released investment in debtors. As a financial management proposition, the cost must be justified by the benefits.

b. Before deciding collection policies and procedures, provisions of the Indian Limitation Act should be kept in mind. Despite the repeated reminders, if the customer fails to pay the amount due from him, legal action should be initiated against the customer before the limitation period is over.

5. **Monitoring the Receivables:** It may be necessary to ensure that the outstanding receivables are within the framework of the credit policy decided by the company. For this, the company may be required to apply regular checks and have a regular system to monitor the receivables property. For this, the company may use the following techniques.

Techniques available on Macro Basis:

One of the most common methods to monitor the receivables on a macro basis is to calculate the Average Collection Period (ACP) which effectively indicates the period taken by the customers to make payment to the company or the average period of credit allowed by the company to the customers.

The Average Collection Period may be calculated in two stages described below.

a. Calculation of daily or monthly sales:

Credit Sales during the year

No. of days/No. of months

b. Calculation of Average Collection Period:

Sundry Debtors in Balance Sheet

Daily/Monthly Sales

For the proper interpretation of ACP, it needs to be compared with the NCP, i.e., the Normal Credit Period offered by the company to customers for making the payment. If ACP works out to be more than the NCP, it indicates inefficiency on the part of the marketing department or sales department or collection department of the company in collecting the dues from the customers. If ACP works out to be less than the NCP, it indicates efficiency on the part of the marketing department or sales department or collection department of the company in collecting the dues from the customers. However, calculation of ACP as a tool to monitor the receivables involves some limitations

a. Calculation of ACP assumes that the credit sales are evenly spread throughout the year. In practical circumstances, credit sales are is not evenly spread throughout the year. In such situations, ACP may give wrong indications.

b. Calculation and interpretation of ACP as a tool to judge the efficiency or inefficiency of the company in collecting the dues from the customers is not possible based upon the published financial statements of the company due to the non-availability of sufficient data for the same. E.g., The number of credit sales made by the company or the normal credit period offered by the company is not available in the published financial statements.

Techniques available on Micro Basis

Considering the limitations associated with the calculation of ACP, it may not be a tool available to monitor the receivables on a micro basis. For this, the calculation of age-wise analysis of receivables may be made. Age-wise analysis of the receivables involves the classification of outstanding receivables at any given point of time (say at the end of every month) into the different age groups (age of the receivables indicating the number of days since the date receivables become outstanding). The percentage of receivables falling under each age group may also be calculated.

Now, if the normal credit period offered by the company to the customers is 30 days, any amount which is outstanding for more than 30 days is indicating the inefficiency on the part of the collection department of the company in collecting the receivables. Thus age-wise analysis of the receivables may provide superior information about the quality of receivables and the company can concentrate its collection efforts on those receivables which are outstanding for a longer period.

FACTORING

In the recent past, factoring has emerged as one of the major financial services in the Receivables Management area.

What is Factoring?

Factoring indicates the relationship between a financial institution (called as the "factor") and a business organization (called as the "client") who in turn sells the goods/services to its customers (called as the "customer"), whereby the factor purchases book debts of the client, either with recourse or without recourse, and in relation thereto controls the credit extended to the customers and administers the sales ledger of the client. In non-technical language, the financial service in the form of factoring tries to provide the services which the marketing department of an organization will be undertaking. E.g., The factor may provide the following services to the client:

a. Factor may undertake the credit analysis of the customers of the client. The factor may also help the client in deciding the credit limit upon each customer and the other credit terms like period of credit, discount to be allowed, etc. It should be noted that the factor need not factor all the debts of the client. He may have his assessment of the customers of the client and accordingly, he will factor in the debts of the client.

b. Factor will undertake the various bookkeeping and accounting activities m relation to receivables management. This will consist of maintenance of debtor's ledger and generation of the various periodical reports on behalf of the client (like outstanding from the customers, age-wise analysis of the outstanding, etc.)

c. The factor undertakes the responsibility of following up with the customers to make the collection from the customers. For this, it will be necessary that the client informs its customers about the fact that the debts have been factored by the factor and that the customers should make the payments to the factor directly.

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d. Factor can purchase the debts of the client making the immediate payment of these debts to the client after maintaining about 20% to 30% margin. This reduces the strain on the working capital requirements of the client and the client can concentrate on manufacturing and other activities. After the customer makes the payment to the factor on the due date, the factor passes on the funds to the client after adjusting the funds advanced by him to the client. If the factor purchases the debt of the client, it will be involving the cost and the cost is slightly higher than the interest which the client would have paid had he borrowed the hinds from the bank. If some of the debts are not purchased by the factor, the client can borrow from the bank against these debts.

e. Factor can assume the risk of non-payment by the customers if the factoring is without recourse factoring and in such cases, the factor is not able to recover the money from the client. If the factoring is with recourse factoring, the risk of nonpayment by the customers is assumed by the client and not by the factor. As such, the factor is entitled to recover the funds advanced by him to the client.

Types of Factoring

Based on the above features of factoring, factoring can be classified m the following ways:

a. Without Recourses Factoring: In the case of this type of factoring, the risk on account of non-payment by the customer is assumed by the factor. The factor is not entitled to recover the amount from the selling company. Thus, without Recourse Factoring results in the outright buying of selling company's receivables by the factor. This type of factoring is also referred to as full factoring.

b. With Recourse Factoring: In the case of this type of factoring, the risk on account of nonpayment by the customer is assumed by the selling company and the factor is entitled to recover the funds advanced by him the selling company.

Advantages of Factoring

a. Factoring is how the company can finance its requirement of working capital in respect of receivables. Immediate availability of cash reduces the strain on the working capital of the company. As the financing in the form of factoring moves with the level of receivables directly, the company need not worry about financing the additional requirement of working capital due to the increased number of sales.

b. Factoring organization is a professional specializing in various fields. The company can take the advantage of the expertise of the factor in the areas of credit evaluation, credit analysis, deciding the credit limits upon the customers, etc.

c. With the help of factoring as a financial service, the company can be relieved of the administrative responsibilities of maintaining the debtors' ledger, periodical report generations, and following up with the customers for collecting the dues, etc. This not only results in cost-saving for the company, but the company can concentrate its efforts on business development.

Disadvantages of Factoring

a. As the amount charged by the factoring organization, consists of the components towards the administrative services rendered by the factor as well as the cost of finance provided by the factor, the effective financial burden on the company increases.

b. The Indian circumstances, Factoring is mainly with-recourse factoring. This means that the risk of non-payment on the part of the customer is not borne by the factor. It is borne by the selling firm. This has restricted the popularity of factoring services in Indian circumstances.

c. While making the credit evaluation, if the factor adopts a very conservative approach to minimize the risk of delay and default, it may restrict the sales growth of the selling company.

d. Factoring may be considered to be a symptom of financial weakness on the part of the selling company. It may indicate that the selling company is not able to manage its receivables effectively on its own and is required to take the help of an outside agency in the form of a factor.

EXAMPLE: A company is currently selling 12000 units at Rs. 50 per unit. The variable cost per unit is Rs. 40. At present, the company gives credit of one month which is proposed to be extended to two months, whereby it will be able to increase sales by 25%. If the required rate of return is 18% and the average cost per unit is Rs. 45, should the new credit policy be implemented?

Solution:

Calculation of incremental profits

	Present Costs Structure	Proposed Costs Structure	Differences
	Rs.	Rs.	Rs.
Sales	6,00,000	7,50,000	1,50,000
Variable cost	4,80,000	6,00,000	1,20,000
Contribution	1,20,000	1,50,000	30,000
Fixed Costs	60,000	60,000	—
Profit	60,000	90,000	30,000

Thus, the new credit policy will result in increased profits of Rs. 30,000.

The costs involved with the new credit policy will be as below.

	Present Policy	New Policy
	Rs.	Rs.
Variable cost	4,80,000	6,00,000
Fixed Cost	60,000	60,000
Total Cost	5,40,000	6,60,000

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Average Debtors (1 month) (2 months)

Investment in Debtors 45,000 1,10,000

As such, incremental investment in debtors is Rs. 65,000 i.e., 1,10,000 — Rs. 45,000. As the required rate of return is 18% p.a., costs attached with incremental debtors will be Rs. 11,700 i.e., 18% of Rs. 65,000.

As the increased profits of Rs. 30,000 are more than increased costs of Rs. 11,700 the new credit policy will be desirable.

However, before liberalizing the credit period, the following factors should also be considered:

a. Liberalizing the credit period is likely to increase the demand. It should be verified whether the company can meet this additional demand. If the company is operating at its full capacity and it is necessary to increase the capacity to meet the additional demand, the effect of this possibility on the cost structure of the company is required to be considered.

b. Liberalizing the credit period may increase the demand which in turn may call for the additional investment in working capital say inventory. While evaluating the proposal to liberalize the credit period, the cost associated with the additional investment in working capital is also required to be considered.

Discount Policy

Discounts are usually allowed to speed up the collection process and to induce the customers to pay the dues early. The decisions regarding the rate of discount and period of discount depend upon the usual cost-benefit considerations i.e. The cost of carrying the debts on one hand and on another hand, the benefits received from getting the amount released from the debtors immediately, which may be available for some different and beneficial use. Proposal to liberalize the discount policy should be evaluated m terms of loss of revenue on one hand and the benefits arising out of released investment in receivables on another hand.

EXAMPLE: XYZ Corporation is considering relaxing its present credit policy and is in the process of evaluating two proposed policies. Currently, the firm has annual credit sales of Rs. 50 lakhs and accounts receivable turnover ratio of 4 times a year. The current level of loss due to bad debts is Rs. 1,50,000. The firm is required to give a return of 25% on the investment in new accounts receivables. The company's variable costs are 70% of the selling price. Given the following, ng information, which is the better option?

Present	Policy	Policy
Policy	Option	Option
	I	II
Annual Credit Sales (Rs.)	50,00,000	
Accounts Receivable	60,00,000	67,50,000
Turnover Ratio	4 times 3 times	2.4 times

Bad Debts Losses (Rs.)	1,50,000	

Solution:

Evaluation of credit policy options 3,00,000 4,50,000

Benefits	Option I	Option II
Sales (Rs.)	60,00,000	67,50,000
Incremental Sales (Rs.)	10,00,000	17,50,000
Additional contribution (30% of sales)	3,00,000	5,25,000
Costs		
Sales (Rs.)		
Accounts Receivables Turnover Ratio	60,00,000	67,50,000
(No. of times)	3	2.4
Accounts Receivables (Rs.)	20,00,000	28,12,500
Incremental Receivables (Rs.)		
Investment in incremental Receivables	7,50,000	15,62,500
(70%) (Rs.)		
Return on investment in Receivables	5,25,000	10,93,750
(25%)	1,31,250	2,73,438
Incremental Bad Debt losses	1,50,000	3,00,000
Total Costs (i.e., fig.)	2,81,250	5,73,438

Net Benefits 18,750 (48,438)

Conclusion:

As credit policy option no. II generates the incremental loss of Rs. 48,438, the company should reject the same.

Read its policy option no. I generate the incremental profit of Rs. 18,750, which can be accepted by the company.

STS Ltd. which sells on a credit basis has ranked its customers in categories 1 to 5 in order offered at risk.

Category	% bad debts	ACP
1	0.0	30 days
2	1.0	45 days

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3	2.0	60 days
4	5.0	90 days
5	10.0	120 days

The company's current policy is to allow unlimited credit to firms in categories 1 to 3, limited credit to firms in category 4, and no additional credit to firms in category 5.

As a result, orders amounting to Rs. 25,00,000 from category 4 and Rs. 75,00,000 from category.

4.24 MANAGEMENT OF INVENTORY

Management of inventory assumes importance because investment in inventory constitutes one of the major investments in current assets.

Meaning and Types of Inventories

Inventory means all the materials, parts, suppliers, expenses, and in-process or finished products recorded on the books by an organization and kept in its stocks, warehouses, or plant for some time.

Types of Inventories

a. Raw Materials
b. Finished Components
c. Work- in- Progress (WIP)
d. Finished Goods
e. Goods in Transit
f. Pools
g. Auxiliary Material
h. Machine Spares

Need for Inventory

a. To claim economics in Purchasing/Manufacturing
b. Safety Stocks to avoid stock outs
c. To satisfy the demand during the period of replenishment
d. To level out Production
e. To prevent loss of Sales
f. To create a buffer against uncertainty in Supplier's Plant.
g. To take advantage of lower transportation costs.
h. Supplier's condition of minimum quantity
i. Govt. Regulations

Objectives of an inventory control

a. Protection against fluctuations in demand
b. Better use of men, machines, and material
c. Protection against fluctuations in output
d. Control of stock volume
e. Control of stock distribution
f. Deciding optimum order size
g. Deciding Reorder point

Inventory Control

Inventory control is the technique of maintaining the size of the inventory at some desired level keeping in view the best economic interest of an organization.

Major activities of inventory control:

a. Planning the inventories;
b. Procurement of inventories;
c. Receiving and inspection of inventories;
d. Storing and issuing the inventories;
e. Recording the receipt and issues of inventories.
f. Physical verification of inventories;
g. Follow-up function;
h. Material standardization and substitution.

Inventory Decisions

Executive decide two basic issues while dealing with inventories;

a. How much of an item to order when the inventory of that item is to be replenished?
b. When to replenish the inventory of that item.

Inventory decisions facilitate production or satisfy customer demands. The inventory system is a set of policies and controls which monitor and determine the levels of inventory. Inventory conventionally includes raw materials, work-in-progress, components parts, supplies, and finished goods. Operations is a transformation process in which the inputs are raw materials and output is the finished goods. Suppliers Raw materials Work in Process Finished good Customers.

Perpetual Inventory System

Perpetual inventory is a method of accounting for inventory that records the sale or purchase of inventory immediately through the use of computerized point-of-sale systems and enterprise asset management software. Perpetual inventory provides a highly detailed view of changes in inventory with immediate reporting of the amount of inventory in stock, and accurately reflects the level of goods on hand. Within this system, a company makes

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no effort at keeping detailed inventory records of products on hand; rather, purchases of goods are recorded as a debit to the inventory database. Effectively, the cost of goods sold includes such elements as direct labor and materials costs and direct factory overhead costs.

A perpetual inventory system is distinguished from a periodic inventory system, a method in which a company maintains records of its inventory by regularly scheduled physical counts.

Costs associated with Inventory

1. Material Cost: Price per Unit × No of Units plus any other direct costs associated with getting the item to the plant
2. Procurement Cost (Ordering Cost) in case of Purchase or Setting Cost in case of Manufactured Item.
3. Inventory Carrying Cost.
4. Loss of customer goodwill, back-order handling, and lost sales

Procurement Cost (Ordering Cost)

1. Cost of Paperwork, Typing, Dispatching an Order, etc.
2. Cost of effective communication like Cost of follow up i.e., Telephone, Travel, etc.
3. Salaries and Wages of Purchase Dept.
4. Carriage inwards i.e., Incoming Goods freight.
5. Transportation Cost
6. Transit Insurance
7. Cost of receiving goods, inspection, and transferring to stores.
8. Cost of Purchase Returns,
9. Damages during transit

Set up Cost for Manufactured Items

1. Cost of Changing Set up of M/C Tools and Equipment for next job.
2. Cost of issue of materials for a new job.
3. Cost of inspection of first few pieces from new Setting
4. Cost of Scrap.
5. Cost of idle time of machine and labor.
6. Cost of paperwork.

Inventory Carrying Cost or Holding Cost

1. Cost of borrowing Capital. On the funds blocked in the inventory
2. Opportunity Cost.
3. Deterioration and Obsolescence.
4. Insurance Cost

5. Storage cost.
6. Storage Cost includes
    a. Salaries and Wages of the store's personnel.
    b. Rent if space is rented.
    c. If own building then Depreciation, Repair and Maintenance cost deemed rent.
    d. Depreciation cost of Material Handling equipment and its Repair and Maintenance cost.

OVER STOCKING

Advantages:

a. Ordering cost is low
b. No fear of shortage of material for the production chain.
c. If the price increases in future benefit

Disadvantages:

a. Carrying cost is High
b. If the price decreases in future Loss

UNDER STOCKING

Advantages:

a. Ordering Carrying cost is low
b. If the price decreases in future benefit

Disadvantages:

a. Ordering cost is High
b. Fear of shortage of material for the production chain.
c. If the price increases in future Loss

SELECTIVE INVENTORY CONTROL TYPES

a. ABC Analysis.
b. VED Analysis.
c. XYZ Analysis.
d. FSN Analysis.
e. GOLF Analysis.
f. SOS Analysis.
g. HML Analysis.
h. SDE Analysis.
i. VEIN Analysis
j. GUS Analysis.

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ABC Analysis

This technique assumes the basic principle of ''Vital Few Trivial Many" known as "Always Better Control". It is an analytical method of inventory control that aims at concentrating efforts in those areas where attention is required most.

80/20 Analysis. Statistics reveal that just a few handfuls of items account for the bulk of the annual expenditure on materials. These handful few items need a very close watch and are called "A" Items. Other items are many but the annual expenditure on the same is comparatively less.

How do we classify these items?

Category	Value	Quantity
A	High	Low
B	Medium	Medium
C	Low	High

Item	Quality	Quantity	Order Checking
A	Costlier	Less	Regular system to see that there overstocking as well That there is no danger of production being interrupted for unwanted material.
B	Less costly	Order may be on review basis	Position being viewed in each month.
C	Economical	Larger	Order in large quantity so that cost can be avoided.

Class	No. of items	% of total	Value/Consumption	% of Total Value
A	300	6	5,60,000	70
B	1,500	30	1,60,000	20
C	3,200	64	80,000	10

Steps for ABC Analysis

a. Prepare the List of Items.

b. Estimate their annual usage in quantities.

c. Determine the unit cost of each item.

d. Multiply annual usage quantity by unit cost to arrive at annual usage value in Rs.

e. Arrange items in descending order of their annual usage value i.e., Starting with the highest annual usage value.

f. Calculate cumulative annual usage value.

g. Express no of items and cumulative usage value as a percentage of respective totals.

h. Plot cumulative usage value % age against % age of cumulative no of items.

Item No.	Description	Usage Value	Cumulative Usage	% of usage
1	Nitric Acid	40000	40000	28%
2	Methylene Chloride	36000	76000	54%
3	Drums	32000	108000	76%
4	Ethyl e Acetate	12000	120000	85%
5	Xylene	6000	126000	89%
6	Dispirit	4200	130200	92%
7	Paraffin Wax	3500	133700	94%
8	Camphor	3200	136900	96%
9	Toluene	3000	139900	99%
10	Butyl Acetate	2100	142000	100%

Item No.	Description	Usage Value	Cumulative Usage	% of usage
1	Nitric Acid	30	30	0.61%
2	Methylene Chloride	45	75	1.53%
3	Drums	70	145	2.95%
4	Ethyl Acetate	100	245	4.98%
5	Xylene	150	395	8.04%
6	Dispirit	220	615	12.51%
7	Paraffin Wax	400	1015	20.65%
8	Camphor	700	1715	34.89%
9	Toluene	1200	2915	59.31%
10	Butyl Acetate	2000	4915	100.00%

Item No.	Description	% of usage Value	% of usage Quantity	Category
1	Nitric Acid	28%	0.61%	A
2	Methylene Chloride	54%	1.53%	A
3	Drums	76%	2.95%	B
4	Ethyl Acetate	85%	4.98%	B
5	Xylene	89%	8.04%	B
6	Dispirit	92%	12.51%	C
7	Paraffin Wax	94%	20.65%	C
8	Camphor	96%	34.89%	C
9	Toluene	99%	59.31%	C
10	Butyl Acetate	100%	100.00%	C

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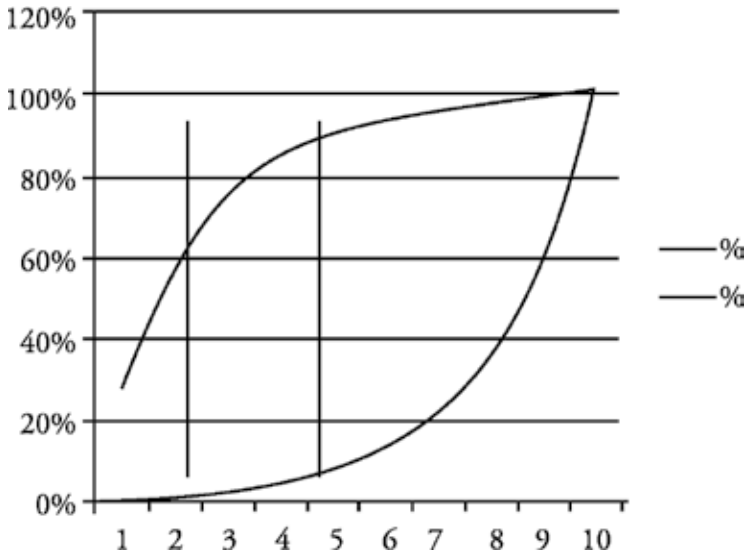
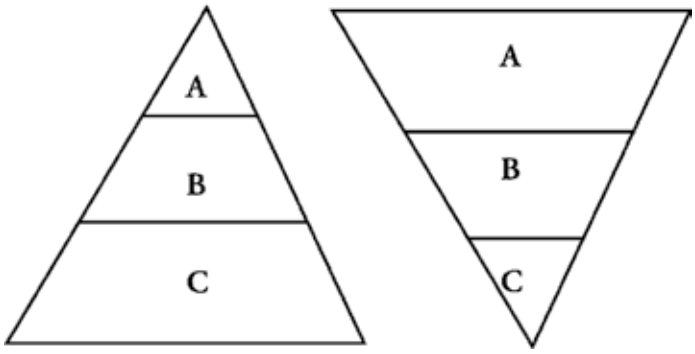
A: 1.53% items account for 54% of Value

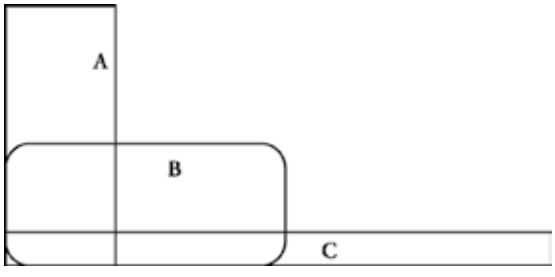


B: 6.51 % items account for 35% of Value

ABC illustration



ABC in shapes



Order Quantity Strategies

a. **Lot-for-lot:** Order exactly what is needed for the next period

b. **Fixed-order quantity:** Order a predetermined amount each time an order is placed

c. **Min-max system:** When on-hand inventory falls below a predetermined minimum level, order enough to refill up to maximum level

d. Order in periods: Order enough to satisfy the demand for the next n periods

Economic Order Quantity (EOQ)

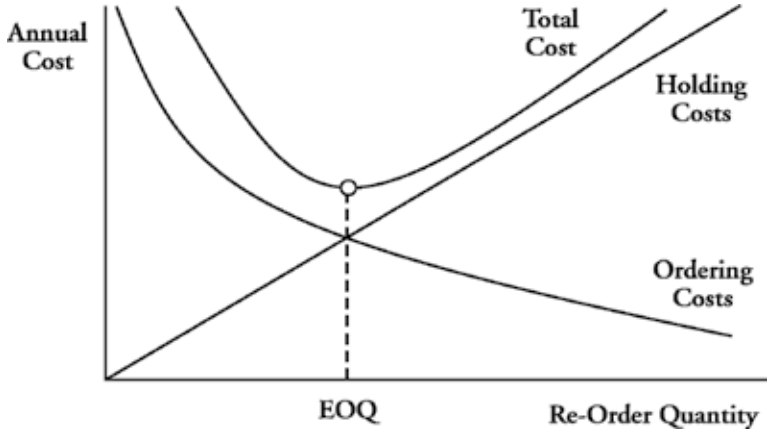
It is also known as standard order quantity, optimum quantity, or economic lot size.

By definition, economic order quantity is the size of an order for which the total cost is minimum.

- Determining order quantity is the basic decision in Inventory Control.
- Ordering large Lots infrequently reduces administrative work but increases inventory.
- Ordering small Lots frequently increases administrative work but keeps low inventory
- One has to order optimum size.
- EOQ indicates that quantity where the total variable cost is minimum.

Such cost consists of two parts:

1. **Annual Procurement Cost (Ordering Cost):** Annual procurement cost is a product of cost per order and the number of orders. This cost will be high if the item is procured in small lots frequently but the annual Inventory cost will be below.
2. **Annual Inventory Carrying Cost:** Annual Inventory Carrying Cost is the product of average inventory investment and the Carrying Cost. This cost falls if the item is procured in small lots but the annual procurement cost will be high. The behavior of both the cost is diametrically opposite. When the total cost is minimum both the costs are balanced and the resulting quantity is Economic Order Quantity. A balance is to be struck between these two factors and it is possible at Economic Quantity where the total variable cost of managing the inventory is minimum.



Example:

Annual Demand	2400 Units
Ordering Cost	Rs. 100 per order
Price	Rs. 100 per unit

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Inventory Carrying Cost 12% on average inventory.

Lot size	No. of Orders	Ordering Cost	Carrying Cost	Total Cost
1	2	3	4	5
100	24	2,400	600	3,000
200	12	1,200	1,200	2,400
240	10	1,000	1,440	2,440
400	6	600	2,400	3,000
600	4	400	3,600	4,000

Fill in the Blanks

Lot size	No. of orders	Ordering cost	Carrying cost	Total cost
1	2	3	4	5
100	48	9,600	500	10,100
____	24	4,800	1,000	5,800
300	16		1,500	4,700 ____
400		2,400	2,000	4,400 _____
600	8	1,600	_____	4,600

The single-item EOQ formula finds the minimum point of the following cost function:

Total Cost = purchase cost or production cost + ordering cost + holding cost

Formula for Calculating Economic Order Quantity (EOQ)

The formula for EOQ is: $Q = \sqrt{\frac{2DS}{H}}$

Where:

Q= EOQ units

D= Demand in units (typically on an annual basis)

S= Order cost (per purchase order)

H= Holding costs (per unit, per year)

Example on discount offer

Annual Demand	2400 Units
Ordering Cost	Rs. 100 per Order
Price Per Unit	Rs. 100
Inventory Carrying Cost	12%

The customer gives you a 5% discount if you buy 400 units.

Will you accept the offer?

Fixation of Inventory Levels

a. **Maximum Level:** It indicates the level above which the actual stock should not exceed. It exceeds, it may involve unnecessary blocking of funds in inventory.

b. **Minimum Level:** It indicates the level below which the actual stock should not reduce. If it reduces, it may involve the risk of non-availability of material whenever it is required.

c. **Re-order Level:** It indicates the level of material stock at which it is necessary to take the steps for procurement of further lots of material.

d. **Danger Level:** This is the level fixed below a minimum level. If the stock reaches this level, it indicates the need to take urgent action in respect of getting the supply.

CALCULATION OF VARIOUS LEVELS FORMULAS

a. Re-order Level

= Maximum Lead Time × Maximum Usage.

b. Maximum Level

= Re-order Level + Re-order Quantity- (Minimum Usage × Minimum Lead Time)

c. Minimum Level

= Reorder Level - (Normal Usage + Normal Lead Time)

d. Average Level

= (Minimum Level + Minimum Level)/2

e. Danger Level

= Normal Usage ×Lead time for emergency purchases

Maximum stock level

Quantity of inventory above which should not be allowed to be kept.

This quantity is fixed keeping in view the disadvantages of overstocking;

Factors to be considered:

- Amount of capital available.
- Godown space available.
- Possibility of loss.
- Cost of maintaining stores;
- Likely fluctuation in prices;
- Seasonal nature of supply of material;

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- The restriction imposed by Govt.;
- Possibility of change in fashion and habit.

Minimum stock level

a. This represents the quantity below which stocks should not be allowed to fall.

b. The level is fixed for all items of stores and the following factors are taken into account:

- Lead time
- Rate of consumption of the material during the lead time.

Re-ordering level

It is the point at which if stock of the material in-store approaches, the storekeeper should initiate the purchase requisition for a fresh supply of material.

This level is fixed somewhere between the maximum and minimum levels.

Re-order Level without safety stock = Maximum Lead Time (L)× Maximum Usage (D)

ROL=L× D

Re-order Level with safety stock = Maximum Lead Time (L)× Maximum Usage (D) + Safety **Stock (SS). ROL = L× D + SS**

Re-order Level

Re-order Level without safety stock = Maximum Lead Time (L)× Maximum Usage (D)

ROL=L× D

Example: Re-order Level without safety stock

Normal usage	50 units per week
Minimum usage	25 units per week
Maximum usage Re-order quantity Re-order period	75 units per week 400 units
Normal usage	4 to 6 weeks
Minimum usage	50 units per week

Solution:

1. **Re-order Level:** Maximum Lead Time ×Maximum Usage

   W 6 weeks × 75 units = 450 units.

2. **Minimum Level:**

   Re-order Level - (Normal Usage × Normal Lead Time)

= 450 units-(50 units × 5 weeks) = 200 units.

3. **Maximum Level:**

Re-order Level + Re-order Quantity - (Minimum Usage × Minimum Lead time)

450 units + 400 units - (25 units × 4 weeks) = 750 units

4.25 CHAPTER SUMMARY

Profit Maximization and Wealth Maximization are the two main objectives of Financial Management. Finance function is the process of acquiring and utilising funds of a business. The function of finance is concerned with the financing Investment and Dividend Policy Decisions. Financial Management is the function of Assessment, Acquisition, Allocation of capital and Appropriation of profit and Analysis of performance.

Functions of CFO include Assessment, Acquisition, Allocation of capital and Appropriation of profit and Analysis of performance. Other functions are funds management, tax planning and returns, management of audit, relationship with Creditors, Debtors etc. Capitalisation means the determination of the amount which the company should have at its disposal. Cost theory of capitalisation considers the amount of capitalisation on the basis of cost of various assets required to set up the organisation. Earnings theory of capitalisation considers the amount of capitalisation on the basis of expected future earnings of the company, by capitalising the future earnings at the appropriate capitalisation rate. Debt Capital means the long term loans taken from Banks or other institutions or general public repayable after one year, carrying fixed rate of interest. Debenture means a document containing an acknowledgement of indebtedness issued by a company and giving an undertaking to repay the debt at a specified date. Term Loans indicate liabilities accepted by the company which are for the purpose of purchasing the fixed assets and are repayable over a period of 3 to 10 years.

- Capital structure refers to the mix o ('sources from which the long term funds required by a business are raised.
- **Net Income Approach:** By the introduction of additional debt capital in the capital structure, the valuation of the firm can be increased and cost of capital can be reduced and vice versa.
- **Net Operating Income Approach**: Any change in the capital structure does not affect the value of the firm or cost of capital.
- **Traditional Approach:** It believes the existence of what may be called 'Optimal Capital Structure'.
- **Modigliani - Miller Approach:** Value of the firm and its cost of capital are independent of its capital structure. The cost of capital can be defined as "the rate at which an organization must pay to the suppliers of capital for the use of their funds". The cost of equity shares basically depends upon the expectations of the equity shareholders.

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- **Dividend/Price (D/P) Approach**: Cost of Equity = Dividend Per Share/ Market Price
- **Earnings/Price (E/P) Approach**: Cost of Equity = Earnings Per Share/ Market Price
- **Dividend/Price + Growth (D/P + G) Approach**: Cost of Equity = Dividend Per Share/ Market Price+ Growth.
- Working capital refers to the funds invested in current assets i.e., investment in stocks, sundry debtors, cash, and another current asset. The objective of working capital management is to ensure Optimum Investment in current assets. There are certain factors affecting working capital requirements such as nature of business, size of the organization, trading terms, length of the production cycle, profitability, etc.
- Gross Working Capital means Current Assets. Net Working Capital means Current Assets less Current Liabilities. Unless otherwise specified, Working Capital means Net Working Capital
- Fixed Working Capital is the minimum working capital required to be maintained in the business on a permanent or uninterrupted basis. Variable working capital is the working capital required over and above the fixed or permanent working capital
- Factors affecting Working Capital requirements are Nature of business, size of the organization, length, of the operating cycle, credit purchases and sales, lag of payment for expenses
- Working Capital cycle is a cycle in which cash available to the organization is converted back in the form of cash after manufacturing and sale of goods
- Working Capital Management means efficient management of components of Current Assets and Current Liabilities. The basic goal of Working Capital Management is to manage the Current Assets & Current Liabilities of a firm in such a way that a satisfactory level of Working Capital is maintained. The objective of Working Capital Management is to avoid over-investment or under-investment in Current Assets, as both, the externs involve adverse consequences.
- The hedging approach suggests that the permanent working capital requirement should be financed with funds from long term sources while the temporary working capital requirement should be financed with short term funds
- The motives of holding cash may be the transaction motive, precautionary motive, or speculative motive. By preparing the cash budget, the company may predict any likely excess or shortage of cash, and thereby the company may appropriately take action. The basic objective of cash management is to reduce the operating cash requirement to the minimum possible extent without affecting the routine transactions.
- In- basic objective of the management of receivables is to optimize the return on investment in receivables. And it also has to achieve a tradeoff between risk and

profitability. Receivables management has the following aspects; credit analysis, setting of credit terms, Financing of receivables, credit collection, and monitoring of receivables. Factoring indicates the relationship between a financial institution (called a factor) and a business organization (called a client) who in turn sells the goods/services to its customers, whereby the factor purchases book debts of the client, either with recourse or without recourse, and in relation thereto controls the credit extended to the customers and administers the sales ledger of the client.

- Inventory includes raw material, stores, and supplies, work in progress, and finished goods, The various techniques of inventory management include i) Economic Order Quantity ii) Fixation of Inventory levels iii) Computation of Inventory turnover iv) ABC analysis v) Preparation of Bill of Materials vi) Perpetual Inventory System.

4.26 KEY WORDS

Capitalisation	The determination of the amount which the company should have at its disposal.
Cost theory of capitalisation	The amount of capitalization on the basis of cost of various assets required to set up the organization.
Debenture	A document containing an acknowledgment of indebtedness issued by a company and giving an undertaking to repay the debt at a specified date
Debt Capital	The long-term loans taken from Banks or other institutions or general public repayable after one year, carrying fixed rate of interest
Earnings theory of capitalization	The amount of capitalization on the basis of expected future earnings of the company, by capitalizing the future earnings at the appropriate capitalization rate.
Finance function	The process of acquiring and utilizing funds of a business.
Financial Management	The function of Assessment, Acquisition, Allocation of capital and Appropriation of profit and Analysis of performance.
Hire purchase	An agreement between the owner of goods, called as "the hiree" and the user of the goods, called as "the hirer" whereby the hiree deliver the goods to the hirer against a payment called hiring charges but the ownership of the goods remains with the hiree.
Lease	The written agreement between the owner of the assets, called "the lessor", and the user of the assets, called "the lessee" whereby the lessor permits the lessee to economically use the asset for a specified period of time against a payment called rent but the title of the asset is retained by the lessor.
Over capitalization	Existence of excess capital as compared to the level of activity and requirements.

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Retained earnings	Ploughed back profits which are retained in the business after distributing dividends.
Share	The smallest unit into which the overall requirement of capital of a company is subdivided
Term Loan	Liability accepted by the company which are for the purpose of purchasing the fixed assets and are repayable over a period of 3 to 10 years
Undercapitalization	Existence of excess assets as compared to the level of capital

Capital structure	The mix of sources from which the long-term funds required by a business are raised
Combined Leverage	Relation between Contribution and Earnings before tax
Composite cost of capital	The weighted average of the cost of each specific type of capital
Cost of capital	The rate at which an organisation must pay to the suppliers of capital for the use of their funds and other incidental expenses.
Cost of Debt	Interest paid/Net amount collected
cost of equity shares	The expectations of the equity shareholders
Cost of Preference Share	Dividend paid/Net amount collected
Dividend/Price (D/P) Approach	Cost of Equity = Dividend Per Share/ Market Price
Dividend/Price + Growth (D/P+G) Approach	Cost of Equity - Dividend Per Share/ Market Price+ Growth.
Earnings/Price (E/P) Approach	Cost of Equity = Earnings Per Share/Market Price
Financial leverage	Relation between Earnings before interest and tax and Earnings before tax
Leverage	The influence of one financial variable over some other financial variable.
Net Income	Earning Before Tax (EBT)
Net Operating Income	Earning Before lull csl and Tax (EBIT)

Operating Leverage	Relation between Contribution and Earnings before interest and tax
Fixed Working Capital	The minimum working capital is required to be maintained in the business on a permanent or uninterrupted basis.
Gross Working Capital	Current Assets.
Networking Capital	Current Assets less Current Liabilities.
Ratio	An arithmetical relationship between two related figures.
Ratio Analysis	A technique for the interpretation of financial statements based on the computation of various ratios.
Variable working capital	is the working capital required over and above the fixed or permanent working capital
Working Capital cycle	A cycle in which cash available to the organization is converted back in the form of cash after manufacturing and sale of goods.

4.27 REVIEW QUESTIONS

SHORT ANSWER TYPE QUESTIONS

1. **State the important principles of Capital Structure. State the factors affecting Capital Structure.**
2. **State the objects of the Capital Structure Planning.**
3. **State the different Theories of Capital Structure.**
4. **Differentiate between Share Capital and Debt Capital.**
5. **State the features of Debentures. Explain the advantages and disadvantages of Debentures.**

LONG ANSWER TYPE QUESTIONS

1. **Explain the various motives for holding the cash.**
2. **Explain the various principles to be followed for managing the cash in a very big size organization having branches all over the country.**
3. **Define the concept of float and illustrate this concept with an example.**
4. **Write short notes on-**
   - **Credit Period**
   - **Cash management**
5. **Explain the Principle of Cash Management.**

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4.26 MULTIPLE CHOICE QUESTIONS

1. **_____ indicate liabilities accepted by the company which are for the purpose of purchasing the fixed assets and are repayable over a period of 3 to 10 years.**
   a. Term Loan
   b. Debentures
   c. Equity
   d. Preference shares
2. **If the preference shares are _____ shares and the company is unable to pay the dividend in a certain year due to non-availability of profits, the arrears of preference dividend do not accumulate.**
   a. Cumulative preference
   b. Non-cumulative preference
   c. Convertible preference
   d. None of the above
3. **Advantages of leasing for the lessee include_____.**
   a. Risks of ownership
   b. Saving of capital outlay
   c. Tax advantages
   d. All of the above
4. **According to this approach, the investor is prepared to pay the market price of the shares as he expects not only the payment of the dividend but also expects a growth in the dividend rate at a uniform rate perpetually.**
   a. Dividend/Price (D/P) Approach
   b. D/P+G Approach
   c. Earnings/Price (E/P) Approach
   d. None of the above
5. **The rate at which an organisation must pay to the suppliers of capital for the use of their funds and other incidental expenses is called as _____.**
   a. Cost of capital
   b. Cost of share capital
   c. Cost of preference shares
   d. Cost of debt
6. **Inventory means all the materials, parts, suppliers, expenses and _____.**
   a. In process or finished products
   b. Cash and Labor

c. Planning and management

d. None of the above

7. **How much of an item to order when the inventory of that item is to be replenished comes under _____**

a. Order Quantity Strategies

b. Inventory Decision

c. Economic Order Quantity

d. None of the above

8. **The general objective of working capital management, receivables management is also to achieve a tradeoff between**

a. Stock and management

b. Profit and Loss

c. Risk and Profitability

d. none of the above

9. **Factoring indicates the relationship between a _____ and _____.**

a. Stock and Finance

b. Planning and Management

c. Financial Institution and Business Organization

d. None of the above

10. **The credit period is the time allowed by the company to the customers to pay theirs _____.**

a. Dues

b. Cash

c. Profit

d. Investment

♦♦♦♦♦

UNIT V

PROFIT AND DIVIDEND MANAGEMENT

STRUCTURE

NOTES 

5.1 LEARNING OBJECTIVE

After completing this unit, you will be able to:

- Understand the Meaning and Importance of Profit Management.
- Analyse Profitability Ratios.
- Explain the Dividend Policy.
- List the Types of Dividends.
- Explain Dividend Theories.

5.2 INTRODUCTION

Profit management means the manipulation of financial statement items within the framework of accounting standards that may be for the benefit of the company or for the benefit of the opportunity. There are many incentives for profit management, for example managers use profit managers to pay less tax. This may be through accruals, or for managers to increase their rewards to manage profits and show more profits. Other incentives for earnings management include attracting investors, reducing earnings fluctuations and keeping track of the business and reputation of managers, etc.

Dividend refers to that part of net profits of a company which is distributed among shareholders as a return on their investment in the company. Dividend is paid on preference as well as equity shares of the company.

On preference shares, dividend is paid at a predetermined fixed rate. But the decision of dividend on equity shares is taken for each year separately. A company should adopt a consistent approach to the dividend decisions on equity shares rather than taking decisions each year on a purely adhoc basis. A settled approach for the payment of dividend is known as dividend policy.

Therefore, dividend policy means the broad approach according to which every year it is determined how much of the net profits are to be distributed as dividend and how much are to be retained in the business.

5.3 MEANING AND IMPORTANCE OF PROFIT MANAGEMENT

Profits earned by a company may be handled by it basically in two ways.

a. To distribute the profits among the shareholders by way of dividend.
b. To retain the profits in the business to be used in future.

There are no strict rules and guidelines available to decide as to what portion of the profits should be distributed by way of dividend and what portion should be retained in the business. As such, to decide the dividend policy may be one of the trickiest and delicate decisions which the management of the company may be required to take.

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If the management decides to retain a large portion of the profits in the business, funds required for future expansion and modernisation needs of the company may be available to it on long term basis, without any obligations to repay the same. The expansion or modernisation programmes may improve the earning capacity of the company in future which may carry forward the growth of the company. The company may be able to absorb the shocks of business fluctuations and adverse situations boldly. A strong and stable company may earn the confidence of the investors and creditors and funds may be available to it at reasonable rates conveniently. As a result, the share prices and the value of the company will increase. Thus, though the shareholders are required to forego the dividends in the short run, they get benefit in the long run.

On the other hand, if the management decides to distribute a large portion of profits by way of dividend, the company may be able to earn the confidence of the shareholders and may be able to attract the prospective investors to invest in the securities of the company. Shareholders are necessarily interested in getting larger dividends immediately due to the time value of money and also due to uncertainty regarding the future. Shareholders are thus attracted to the companies paying high dividends, due to which prices of the shares and value of the company increases.

Thus, it can be seen that both high retentions and high dividends may be desirable, but there is necessarily a reciprocal relationship between the retentions and dividends - Higher the retentions, lower the dividends, Lower the retentions, higher the dividends. The skill of the Finance Manager lies in striking the balance between these two extremes.

5.4 PROFITABILITY RATIOS

A profitability ratio is a measure of profitability, which is a way to measure a company's performance. Profitability is simply the capacity to make a profit, and a profit is what is left over from income earned after you have deducted all costs and expenses related to earning the income. The formulas you are about to learn can be used to judge a company's performance and to compare its performance against other similarly-situated companies.

Types of Profitability Ratios

The following types of profitability ratios are:

1. Gross Profit Ratio
2. Operating Ratio
3. Operating Profit Ratio
4. Net Profit Ratio
5. Return on Investment (ROI)
6. Return on Net Worth
7. Earnings per share
8. Book Value per share

9. Dividend Pay-out Ratio
10. Price Earnings Ratio

1. Gross Profit Ratio

Gross Profit Ratio is a profitability ratio that measures the relationship between the gross profit and net sales revenue. When it is expressed as a percentage, it is also known as the Gross Profit Margin. Formula for Gross Profit ratio is:

Gross Profit Ratio = Gross Profit/Net Revenue of Operations × 100

A fluctuating gross profit ratio is indicative of inferior product or management practices.

2. Operating Ratio

Operating ratio is calculated to determine the cost of operation in relation to the revenue earned from the operations. The formula for operating ratio is as follows

Operating Ratio = (Cost of Revenue from Operations + Operating Expenses)/

Net Revenue from Operations ×100

3. Operating Profit Ratio

Operating profit ratio is a type of profitability ratio that is used for determining the operating profit and net revenue generated from the operations. It is expressed as a percentage. The formula for calculating operating profit ratio is:

Operating Profit Ratio = Operating Profit/ Revenue from Operations × 100

Or Operating Profit Ratio = 100 – Operating ratio

4. Net Profit Ratio

Net profit ratio is an important profitability ratio that shows the relationship between net sales and net profit after tax. When expressed as percentage, it is known as net profit margin. Formula for net profit ratio is

Net Profit Ratio = Net Profit after tax ÷ Net sales

Or, Net Profit Ratio = Net profit/Revenue from Operations × 100

It helps investors in determining whether the company's management is able to generate profit from the sales and how well the operating costs and costs related to overhead are contained.

5. Return on Capital Employed (ROCE) or Return on Investment (ROI)

Return on capital employed (ROCE) or Return on Investment is a profitability ratio that measures how well a company is able to generate profits from its capital. It is an important ratio that is mostly used by investors while screening for companies to invest. The formula for calculating Return on Capital Employed is:

ROCE or ROI = EBIT ÷ Capital Employed × 100

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Where EBIT = Earnings before interest and taxes or Profit before interest and taxes

Capital Employed = Total Assets – Current Liabilities

6. **Return on Net Worth**
This is also known as Return on Shareholders' funds and is used for determining whether the investment done by the shareholders are able to generate profitable returns or not.

It should always be higher than the return on investment which otherwise would indicate that the company funds are not utilised properly. The formula for Return on Net Worth is calculated as:

Return on Shareholders' Fund = Profit after Tax / Shareholders' Funds × 100

Or, Return on Net Worth = Profit after Tax / Shareholders' Funds × 100

7. **Earnings Per Share (EPS)**
Earnings per share or EPS is a profitability ratio that measures the extent to which a company earns profit. It is calculated by dividing the net profit earned by outstanding shares. The formula for calculating EPS is:

Earnings per share = Net Profit ÷ Total no. of shares outstanding

Having higher EPS translates into more profitability for the company.

8. **Book Value Per Share**
Book value per share is referred to as the equity that is available to the common shareholders divided by the number of outstanding shares. Equity can be calculated by:

Equity funds = Shareholders funds – Preference share capital

The formula for calculating book value per share is:

Book Value per Share = (Shareholders' Equity – Preferred Equity) / Total Outstanding Common Shares.

9. **Dividend Pay-out Ratio**
Dividend pay-out ratio calculates the amount paid to shareholders as dividends in relation to the amount of net income generated by the business. It can be calculated as follows:

Dividend Pay-out Ratio (DPR): Dividends per share / Earnings per share

10. **Price Earnings Ratio**
This is also known as P/E Ratio. It establishes a relationship between the stock (share) price of a company and the earnings per share. It is very helpful for investors as they will be more interested in knowing the profitability of the shares of

the company and how much profitable it will be in future. P/E ratio is calculated as follows:

P/E Ratio = Market value per share ÷ Earnings per share

It shows if the company's stock is overvalued or undervalued.

5.5 DIVIDEND POLICY

Dividend refers to that part of net profits of a company which is distributed among shareholders as a return on their investment in the company. Dividend is paid on preference as well as equity shares of the company.

On preference shares, dividend is paid at a predetermined fixed rate. But the decision of dividend on equity shares is taken for each year separately. A company should adopt a consistent approach to the dividend decisions on equity shares rather than taking decisions each year on a purely adhoc basis. A settled approach for the payment of dividend is known as dividend policy.

Therefore, dividend policy means the broad approach according to which every year it is determined how much of the net profits are to be distributed as dividend and how much are to be retained in the business.

Thus, the dividend policy divides the net profits or earnings after taxes into two parts:

a. Earnings to be distributed as dividend

b. Earnings retained in the business

Since dividends are distributed out of the profits, there exists an inverse relationship between dividends distributed and retained earnings in the business. If larger net profits are distributed as dividends, retained earnings would be less and on the contrary, if lesser profits are distributed as dividends, the retained earnings would be larger.

The retained earnings are the most easily accessible significant source of finance for the firm. A firm which declares larger dividends will have to use external sources of financing to finance its investment opportunities.

Thus, a firm will have to choose between the portion of profits distributed as dividends and the portion ploughed back into the business. The choice is called the dividend policy and it will have its effect on both the long-term financing and the wealth of shareholders.

Types of Dividend Policies

An organization considers many factors before deciding its dividend policy. The explanation of various types of dividend policy is as follows:

1. **Stable Dividend Policy:**
   Refers to the policy in which an organization pays regular dividends to its share-holders. The stable dividend policy is also known as constant-pay out-ratio.

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2. **Long-Term Dividend Policy:**
   Refers to the policy in which dividend is paid to the shareholders in the long run. If an organization follows long-term dividend policy, then it would not distribute dividend among its shareholders regularly and consistently, even in case of huge profit.

   The organization retains the earnings to be used in future for its growth and expansion programs. Investors looking for short-term gains do not favour the long-term dividend policy. This policy is preferred by those shareholders who have interest in long-term capital gains.

3. **Regular and Extra Dividend Policy:**
   Refers to the dividend policy, which pays a fixed amount of dividend on a regular basis, and an additional amount of dividend, if the organization earns abnormal profit. This policy encourages the prospective investors to invest in the organization and helps in raising capital in the future.

4. **Irregular Dividend Policy:**
   Refers to the policy in which the dividend pay-out ratio keeps on fluctuating. In the irregular dividend policy, dividend per share depends on profit of the organization. If the profit is high, the organization would pay a high dividend per share.

   However, if the profit is low, the organization would pay less or no dividend to the shareholders. The irregular dividend policy is favourable for an organization, which has unstable income. Although, shareholders do not approve this policy very much, as it does not provide any certain income.

5. **Regular Stock Dividend Policy:**
   Refers to the policy in which an organization gives dividend in the form of stock instead of cash. If an organization needs liquidity, then it may adopt regular stock dividend policy and issue bonus shares to its shareholders.

   However, regular stock dividend policy is not considered a very good strategy because it adversely affects share prices and credit standing of the organization. Moreover, shareholders are more interested in getting cash instead of shares.

5.6 TYPES OF DIVIDENDS

Dividends can be classified in various forms. Dividends paid in the ordinary course of business are known as Profit dividends, while dividends paid out of capital are known as Liquidation dividends. **A company may pay dividend in different forms as follows:**

1. **Equity Dividend:**
   The dividend paid on equity shares is called Equity Dividend. The rate of equity dividend is set (recommended) by the board of directors of a business firm and approved by their shareholders.

2. **Preference Dividend:**
   Preference dividend is paid on Preference Shares. At the time of issue of such shares, the rate of dividend is mentioned which remains fixed in nature. This dividend on preference shares is paid before equity dividend. The board of directors of a business firm does not put any recommendation towards preference dividend viz. rate, payment mode etc.

3. **Interim Dividend:**
   Interim dividend is paid by a company for the current year before the accounts for that period have been closed. Such dividend is paid when the company has heavy earnings during the year.

4. **Regular Dividend:**
   Payment of dividend at the usual rate is termed as regular dividend. The investors such as retired persons, widows and other economically weaker people prefer to get regular dividends.

5. **Cash Dividend:**
   A cash dividend is a usual method of paying dividends. Payment of dividend in cash results in outflow of funds and reduces the company's net worth, though the shareholders get an opportunity to invest the cash in any manner they desire. This is why the ordinary shareholders prefer to receive dividends in cash.

   But the firm must have adequate liquid resources at its disposal or provide for such resources so that its liquidity position is not adversely affected on account of cash dividends.

6. **Stock Dividend:**
   Stock dividend means the issue of bonus shares to the existing shareholders. If a company does not have liquid resources it is better to declare stock dividend. Stock dividend amounts to capitalization of earnings and distribution of profits among the existing shareholders without affecting the cash position of the firm.

7. **Scrip or Bond Dividend:**
   A scrip dividend promises to pay the shareholders at a future specific date. In case a company does not have sufficient funds to pay dividends in cash, it may issue notes or bonds for amounts due to the shareholders. The objective of scrip dividend is to postpone the immediate payment of cash. A scrip dividend bears interest and is accepted as a collateral security.

8. **Property Dividend:**
   Property dividends are paid in the form of some assets other than cash. They are distributed under exceptional circumstances and are not popular in India.

9. **Composite Dividend:**
   When dividend is paid partly in cash and partly in the form of property then it is known as composite dividend.

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10. Optional Dividend:

Instead of paying a composite dividend, if the company gives option to its shareholders either for cash dividend or for property dividend then it is called option dividend.

11. Extra or Special Dividend:

Special dividend is an abnormal and non-recurring form of dividend, when the management of a company does not want to make frequent changes in the regular rate of dividend but company is having good number of profits or undistributed reserves then they can declare extra or special dividend.

CHECK YOUR PROGRESS

1. **What are the factors affecting Dividend Policy?**
2. **What are the different types of Dividends?**
3. **What are the different Dividend Theories?**
4. **What is dividend policy?**
5. **Describe profitability ratios.**

5.7 DIVIDEND THEORIES

A. Irrelevance Approach:

This approach is suggested mainly by Modigliani and Miller. According to this approach, the value of the company remains unaffected by the dividend policy of the company. It is the earnings potential and the investment opportunities available to the company which affects its value and not the dividend policy.

Suppose, that a company wants to invest in a project, it has the two options open before it.

- Pay the earnings and raise the funds from market.
- Retain the earnings to be used to finance the project.

If the company pays the dividend; it will have to go to the market for raising the funds. Acquisition of the funds from the market will dilute the shareholding which results in reduced share values. As such, whatever the shareholders receive by way of cash dividends, they lose in terms of reduced share values. As such, they are not concerned with the fact whether the earnings are retained or are distributed by way of dividend. The market price of the shares and as such value of the company remains the same in both the situations.

It is worth recollecting here the Modigliani Miller approach in relation to capital structure which suggests that the value of firm and its cost of capital are independent of its capital structure. As such, in relation to dividend policy also, the source from which the funds required to finance the investment programme are raised does not affect the value of the company.

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B. Relevance Approach:

This approach is suggested mainly by Walter and Gordon. They hold that there is a direct relationship between the dividend policy of the company and its value in terms of market price of its shares. The propositions of the above approach can be stated, in most simple words as below.

The investors prefer current dividend income to future dividend income as it does not involve any risk. As such, increasing pay-out ratio increases the share prices under normal circumstances. However, if the company has the investment opportunities open before it where expected rate of return is more than cost of capital, the share prices may increase even with the declining pay-out ratio which is due to the anticipated and future dividend income.

Three major theories of dividend

Some of the major different theories of dividend in financial management are as follows: 1. Walter's model 2. Gordon's model 3. Modigliani and Miller's hypothesis. On the relationship between dividend and the value of the firm different theories have been advanced.

They are as follows:

1. Walter's model
2. Gordon's model
3. Modigliani and Miller's hypothesis

1. Walter's model:

Professor James E. Walterargues that the choice of dividend policies almost always affects the value of the enterprise. His model shows clearly the importance of the relationship between the firm's internal rate of return (r) and its cost of capital (k) in determining the dividend policy that will maximise the wealth of shareholders.

Walter's model is based on the following assumptions:

1. The firm finances all investment through retained earnings; that is debt or new equity is not issued.
2. The firm's internal rate of return (r), and its cost of capital (k) are constant.
3. All earnings are either distributed as dividend or reinvested internally immediately.
4. Beginning earnings and dividends never change. The values of the earnings per share (E), and the divided per share (D) may be changed in the model to determine results, but any given values of E and D are assumed to remain constant forever in determining a given value.
5. The firm has a very long or infinite life.

Walter's formula to determine the market price per share (P) is as follows:

$$P = D/K + r(E-D)/K/K$$

The above equation clearly reveals that the market price per share is the sum of the present

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value of two sources of income:

a. The present value of an infinite stream of constant dividends, (D/K) and

b. The present value of the infinite stream of stream gains.

[r (E-D)/K/K]

Criticism:

Walter's model is quite useful to show the effects of dividend policy on an all-equity firm under different assumptions about the rate of return. However, the simplified nature of the model can lead to conclusions which are net true in general, though true for Walter's model. The criticisms on the model are as follows:

1. Walter's model of share valuation mixes dividend policy with investment policy of the firm. The model assumes that the investment opportunities of the firm are financed by retained earnings only and no external financing debt or equity is used for the purpose when such a situation exists either the firm's investment or its dividend policy or both will be sub-optimum. The wealth of the owners will maximise only when this optimum investment in made.
2. Walter's model is based on the assumption that r is constant. In fact, decreases as more investment occurs. This reflects the assumption that the most profitable investments are made first and then the poorer investments are made. The firm should step at a point where **r** = **k**. This is clearly an erroneous policy and fall to optimise the wealth of the owners.
3. A firm's cost of capital or discount rate, K, does not remain constant; it changes directly with the firm's risk. Thus, the present value of the firm's income moves inversely with the cost of capital. By assuming that the discount rate, K is constant, Walter's model abstracts from the effect of risk on the value of the firm.

2. Gordon's Model:

One very popular model explicitly relating the market value of the firm to dividend policy is developed by Myron Gordon.

Assumptions:

Gordon's model is based on the following assumptions.

1. The firm is an all-Equity firm.
2. No external financing is available.
3. The internal rate of return (r) of the firm is constant.
4. The appropriate discount rate (K) of the firm remains constant.
5. The firm and its stream of earnings are perpetual.
6. The corporate taxes do not exist.
7. The retention ratio (b), once decided upon, is constant. Thus, the growth rate (g) = br is constant forever.

8. K > br = g if this condition is not fulfilled, we cannot get a meaningful value for the share.

$$P_0 = \frac{E_1 (1 - b)}{K - br}$$

According to Gordon's dividend capitalisation model, the market value of a share (Pq) is equal to the present value of an infinite stream of dividends to be received by the share. Thus:

Gordon's Model

The above equation explicitly shows the relationship of current earnings (E,), dividend policy, (b), internal profitability (r) and the all-equity firm's cost of capital (k), in the determination of the value of the share (P0).

3. **Modigliani and Miller's hypothesis:**

   According to Modigliani and Miller (M-M), dividend policy of a firm is irrelevant as it does not affect the wealth of the shareholders. They argue that the value of the firm depends on the firm's earnings which result from its investment policy. Thus, when investment decision of the firm is given, dividend decision the split of earnings between dividends and retained earnings is of no significance in determining the value of the firm. M – M's **hypothesis of irrelevance is based on the following assumptions.**

   1. The firm operates in perfect capital market
   2. Taxes do not exist
   3. The firm has a fixed investment policy
   4. Risk of uncertainty does not exist. That is, investors are able to forecast future prices and dividends with certainty and one discount rate is appropriate for all securities and all time periods. Thus, r = K = K_t for all t.

Under M – M assumptions, r will be equal to the discount rate and identical for all shares. As a result, the price of each share must adjust so that the rate of return, which is composed of the rate of dividends and capital gains, on every share will be equal to the discount rate and be identical for all shares. Thus, the rate of return for a share held for one year may be calculated as follows:

$$r = \frac{D + (P_1 + P_0)}{P_0} = \frac{\text{Dividends} + \text{Capital gains (on loss)}}{\text{Purchase price}}$$

The Rate of Return for a Share held for one year

Where P^ is the market or purchase price per share at time 0, P, is the market price per share at time 1 and D is dividend per share at time 1. As hypothesised by M – M, r should be equal for all shares. If it is not so, the low-return yielding shares will be sold by investors who will purchase the high-return yielding shares.

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This process will tend to reduce the price of the low-return shares and to increase the prices of the high-return shares. This switching will continue until the differentials in rates of return are eliminated. This discount rate will also be equal for all firms under the M-M assumption since there are no risk differences.

From the above M-M fundamental principle we can derive their valuation model as follows:

$$P_0 = \frac{D_1 + P_1}{(1+r)} \qquad P_0 = \frac{D_1 + P_1}{(1+k)} \qquad r = k$$

Multiplying both sides of equation by the number of shares outstanding (n), we obtain the value of the firm if no new financing exists.

$$V = nP_0 = \frac{N(D_1 + P_1)}{(1+k)}$$

If the firm sells m number of new shares at time 1 at a price of P^, the value of the firm at time 0 will be

$$nP_0 = \frac{ND_1 + (n+m)p_1 - mp_1}{(1+k)}$$

The above equation of M – M valuation allows for the issuance of new shares, unlike Walter's and Gordon's models. Consequently, a firm can pay dividends and raise funds to undertake the optimum investment policy. Thus, dividend and investment policies are not confounded in M – M model, like waiter's and Gordon's models.

Criticism:

Because of the unrealistic nature of the assumption, M-M's hypothesis lacks practical relevance in the real-world situation. Thus, it is being criticised on the following grounds.

1. The assumption that taxes do not exist is far from reality.
2. M-M argue that the internal and external financing are equivalent. This cannot be true if the costs of floating new issues exist.
3. According to M-M's hypothesis the wealth of a shareholder will be same whether the firm pays dividends or not. But, because of the transactions costs and inconvenience associated with the sale of shares to realise capital gains, shareholders prefer dividends to capital gains.
4. Even under the condition of certainty it is not correct to assume that the discount rate (k) should be same whether firm uses the external or internal financing. If investors have desire to diversify their port folios, the discount rate for external and internal financing will be different.
5. M-M argues that, even if the assumption of perfect certainty is dropped and uncertainty is considered, dividend policy continues to be irrelevant. But according to number of writers, dividends are relevant under conditions of uncertainty.

Numerical calculations.

EXAMPLE: Calculate various profitability and dividend ratios on the basis of the following information.

Share Capital Rs. 1,000 Lacs	Face value of the Share Rs. 10/-
Market Price of share Rs.30/-	Profit after Tax: Rs. 150 Lacs
Dividend Distributed: Rs. 50Lacs.	Sales Rs. 3,000Lacs
Cost of Goods Sold Rs. 2,400 Lacs	Operating Profit: Rs. 450 Lacs
Net Owned Funds: Rs. 2,000 Lacs	Long Term: Liabilities = Rs. 3,000 Lacs

Sol. Working Notes:

Gross Profit = Sales - Cost of Goods Sold = 3,000 - 2,400 = 600

No. of shares = Share Capital/ F ace value = l,000/10=100Lacs

Capital Employed = Net Owned Funds + Long Term: Liabilities = 2,000+3,000=5,000

Retained Profit = PAT (1-Payout ratio) = 150 X(1-0.33)= 100 Lacs

Retained Profit = PAT -Dividend Distributed = 150-50= 100 Lacs

1. Gross Profit Ratio = GP/sales = 600/3,000 = 0.20 = 20%
2. Net Profit Ratio = NP/sales= 150/3,000 = 0.05 = 5%
3. Operating Profit Ratio = OP/sales = 450/3,000 = 0.15= 15%
4. Earnings Per Share = Profit/No. of shares = 150/100 = Rs. 1.5
5. Dividend Per Share =Dividend/No. of shares = 50/100 = Rs.0.5
6. Dividend Pay-out Ratio = DPS/EPS = 0.5/1.5 = 0.33 = 33.33%
7. Dividend Pay-out Ratio = Dividend/Profit = 50/150 = 0.33 = 33.33%
8. Dividend Yield = DPS/MP = 0.5/30 = 0.1666=16.67%
9. Return on Equity = Profit/ Net Owned Funds = 150/2000 = 0.075 = 7.5%
10. Return on Capital = Profit/ Capital = 150/7000 = 0.0214 = 2.14%
11. Retained Profit Ratio = 1 -Pay-out ratio = I -0.3333 = 0.6667 = 66.67%
12. Retained Profit Ratio = Retained Profit/PAT = 100/150 = 0.6667 = 66.67%

EXAMPLE: Calculate DPS, Dividend Pay-out Ratio, Dividend Yield and Retained Profit Ratio on the basis of the following information:

Paid up Capital: 500 Lacs Face Value: Rs. 10/-

PAT: 200 Lacs Divided Raid: 50 lacs Market Price of Share: Rs.50/-.

Sol. No. of shares = paid up capital/Face Value = 500 Lacs/10 = 500 Lacs

DPS = Dividend Paid/ No. of shares =50 lacs/ 50 Lacs = Re. 1

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Dividend Payout Ratio= Divided Paid/PAT = 50 lacs/ 200 Lacs = 0.25 = 25%

Retained Profit Ratio = (1-DPS) = 1 -0.25 = 0.75 = 75%

Dividend Yield = DPS/Market Price = 1/50 = 0.02 = 2%

EXAMPLE: Dividend Per Share is Rs.25/- and growth rate of the company is 5%. If the cost of equity is 18%, what is the price of stock, as per Gordon's theory?

Sol. P0 = Dl/(k_e-g), 25/ (.18- .05) = 25/0.13 = Rs. 192.31.

5.8 CHAPTER SUMMARY

Profit management means the manipulation of financial statement items within the framework of accounting standards that may be for the benefit of the company or for the benefit of the opportunity. There are many incentives for profit management, for example managers use profit managers to pay less tax. This may be through accruals, or for managers to increase their rewards to manage profits and show more profits. Other incentives for earnings management include attracting investors, reducing earnings fluctuations and keeping track of the business and reputation of managers, etc.

A profitability ratio is a measure of profitability, which is a way to measure a company's performance. Profitability is simply the capacity to make a profit, and a profit is what is left over from income earned after you have deducted all costs and expenses related to earning the income. The formulas you are about to learn can be used to judge a company's performance and to compare its performance against other similarly-situated companies.

If the management decides to retain a large portion of the profits in the business, funds required for future expansion and modernisation needs of the company may be available to it on long term basis, without any obligations to repay the same. The expansion or modernisation programmes may improve the earning capacity of the company in future which may carry forward the growth of the company. The company may be able to absorb the shocks of business fluctuations and adverse situations boldly. A strong and stable company may earn the confidence of the investors and creditors and funds may be available to it at reasonable rates conveniently. As a result, the share prices and the value of the company will increase. Thus, though the shareholders are required to forego the dividends in the short run, they get benefit in the long run.

Dividend refers to that part of net profits of a company which is distributed among shareholders as a return on their investment in the company. Dividend is paid on preference as well as equity shares of the company.

On preference shares, dividend is paid at a predetermined fixed rate. But the decision of dividend on equity shares is taken for each year separately. A company should adopt a consistent approach to the dividend decisions on equity shares rather than taking decisions each year on a purely adhoc basis. A settled approach for the payment of dividend is known as dividend policy.

5.9 KEY WORDS

Bonus Shares	Indicate the payment of dividend in the form of shares of the same company in proportion to their existing shareholding.
Dividend policy	Is refers to the policy of the management regarding distribution of profit to shareholders and retention of profit.
Irrelevance Approach	The value of the company remains unaffected by the dividend policy of the company.
Relevance Approach	There is a direct relationship between the dividend policy of the company and its value in terms of market price of its shares.

5.10 REVIEW QUESTIONS

SHORT ANSWER TYPE QUESTIONS

1. **Explain the important Profitability Ratios.**
2. **Explain the important Dividend Ratios.**
3. **Explain the need for Dividend Policy.**
4. **How is the valuation of shares done under Gordon's Theory?**
5. **How is the valuation of shares done under Walter's Theory?**

LONG ANSWER TYPE QUESTIONS

1. **Explain the Miller and Modigliani Theory with example.**
2. **Explain the Walter's Theory with example.**
3. **Explain the Gordon's Theory with example.**
4. **Explain the concept of Bonus Shares.**
5. **Explain the Meaning and Importance of Pro tit Management.**

5.11 MULTIPLE CHOICE QUESTIONS

1. **There are _____ type of dividend theories.**
   a. 1
   b. 2
   c. 3
   d. 4
2. **There are _____ type of approaches of dividend.**
   a. 1
   b. 2
   c. 3
   d. 4

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3. **Dividend refers to that part of _____ profits of a company.**
   a. High
   b. Low
   c. Net
   d. None of the above
4. **Types of Profitability Ratios are _____.**
   a. 10
   b. 9
   c. 8
   d. 7
5. **A settled approach for the payment of dividend is known as dividend policy.**
   a. Health policy
   b. Dividend policy
   c. Year policy
   d. None of the above
6. **Walter's model formula is _____= D/K +r(E-D)/K/K.**
   a. A
   b. P
   c. C
   d. D
7. **Net Profit Ratio = Net Profit after tax ÷ _____.**
   a. Net weight
   b. Net amount
   c. Net sales
   d. None of the above
8. **Gross Profit Ratio = _____/Net Revenue of Operations × 100.**
   a. Net profit
   b. Net sales
   c. Gross Profit
   d. Both A and B
9. **_____ = Shareholders funds – Preference share capital.**
   a. Equity
   b. Equity funds
   c. Funds
   d. Equity balance

10. Operating Profit Ratio =_____ – Operating ratio.

a. 100

b. -100

c. 100%

d. None of the above

♦♦♦♦♦

ANSWER KEY

UNIT I

QUES. NO.	ANSWERS	QUES. NO.	ANSWERS
1.	a.	6.	b.
2.	c.	7.	a.
3.	d.	8.	c.
4.	a.	9.	c.
5.	b.	10.	a.

UNIT II

QUES. NO.	ANSWERS	QUES. NO.	ANSWERS
1.	c.	6.	b.
2.	a.	7.	a.
3.	b.	8.	b.
4.	b.	9.	a.
5.	d.	10.	c.

UNIT III

QUES. NO.	ANSWER	QUES. NO.	ANSWER
1.	a.	6.	b.
2.	c	7.	c.
3.	b.	8.	a.
4.	b.	9.	b.
5.	a.	10.	a.

UNIT IV

QUES. NO.	ANSWER	QUES. NO.	ANSWER
1.	a.	6.	a.
2.	b.	7.	b.
3.	d.	8.	c.
4.	b.	9.	c.
5.	a.	10.	a.

UNIT V

QUES. NO.	ANSWER	QUES. NO.	ANSWER
1.	c.	6.	b.
2.	b.	7.	c.
3.	c.	8.	c.
4.	a.	9.	b.
5.	b.	10.	a.

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