FUNDAMENTALS OF ACCOUNTING

M.B.A. First Year

Semester – I, Paper-IV

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M.B.A. – Fundamentals of Accounting

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FOREWORD

Since its establishment in1976, Acharya Nagarjuna University has been forging ahead in the path of progress and dynamism, offering a variety of courses and research contributions. I am extremely happy that by gaining ‘A⁺ ’grade from the NAAC in theyear 2024, Acharya Nagarjuna University is offering educational opportunities at the UG, PG levels apart from research degrees to students from over 221 affiliated colleges spread over the two districts of Guntur and Prakasam.

The University has also started the Centre for Distance Education in2003-04 with the aim of taking higher education to the doorstep of all the sectors of the society. The centre will be a great help to those who cannot join in colleges, those who cannot afford the exorbitant fees as regular students, and even to housewives desirous of pursuing higher studies. Acharya Nagarjuna University has started offering B.Sc., B.A., B.B.A., and B.Com courses at the Degree level and M.A., M.Com., M.Sc., M.B.A., and L.L.M., courses at the PG level from the academic year 2003-2004 onwards.

To facilitate easier understanding by students studying through the distance mode, these self-instruction materials have been prepared by eminent and experienced teachers. The lessons have been drafted with great care and expertise in the stipulated time by these teachers. Constructive ideas and scholarly suggestions are welcome from students and teachers involved respectively. Such ideas will be incorporated for the greater efficacy of this distance mode of education. For clarification of doubts and feedback, weekly classes and contact classes will be arranged at the UG and PG levels respectively.

It is my aim that students getting higher education through the Centre for Distance Education should improve their qualification, have better employment opportunities and in turn be part of country’s progress. It is myfonddesire that in the years to come, the Centre for Distance Education will go from strength to strength in the form of new courses and by catering to larger number of people. My congratulations to all the Directors, Academic Coordinators, Editors and Lesson-writers of the Centre who have helped in these endeavors.

Prof. K.Gangadhara Rao
M.Tech., Ph.D.,
Vice-Chancellor I/c
Acharya Nagarjuna University

M.B.A. – Syllabus

SEMESTER-I

104EM24: Fundamentals of Accounting

Course Out comes:

On successful completion of the course the learner will be able to:

- To learn the Fundamentals of Accounting.
- To understand fundamentals like Accounting concepts, Branches of accounting, Nature of accounting and Accounting Standards.
- To prepare and analyse Financial Statements.
- To learn financial Planning & Control and take major Financial Decisions and
- To understand the Contemporary Developments in the field of Accounting..

Unit-I:

Introduction to Accounting: Concept-Importance and scope-Generally Accepted Accounting Principles –Subsidiary books-Cashbook- Branches of Accounting

Unit-II:

Preparation of Financial statements: Income statement and Balance sheet-Bank Reconciliation Statement -Inventory valuation and Depreciation.

Unit-III:

Analysis of Financial Statements: Objectives; Techniques of Financial Analysis-Financial Ratio analysis-Funds Flow and Cash Flow Analysis.

Unit-IV:

Management Accounting: Marginal Costing - CVP analysis – Budgetary Control. Standard costing and Variance analysis.

Unit-V:

Contemporary Developments: Standard costing and Variance analysis-Responsibility Accounting - Accounting for changing Prices -Human Resource Accounting-Reporting to Management.

ReferenceBooks:

1. Meigs & Meigs, Accounting the Basis for Business Decisions, Tata Mc Graw Hill.
2. Pankaj Gupta, Management Accounting, Excel Books, New Delhi,2006.
3. Bhattacharya **S.K.** & Dearoon.J., Accounting for Management-Text and Cases, Vikas,
4. Narayana Swamy, Financial Accounting: A Managerial Perspective, PHI.
5. Ashishk., Bhattacharya, Cost Accounting for Business Managers, Elsevier
6. Bhattacharya, Financial Accounting for Business Managers-Perspective, PHI.
7. MC Shukla, TS Grewal, Financial Accounting, S.Chand
8. I.M. Pandey: Management Accounting, Vikas Publishing House.
9. Chakraborty & Hrishikesh – Management Accountancy, Oxford University Press. l0. Khan and Jain, Management Accounting, Tata McGraw Hill, Delhi.
10. J.C. Varshney: Financial and Management Accounting, Wisdom Publication.
11. Tulsian, P.C., "Cost Accounting", Sultan Chand.
12. Paresh Shah, Management Accounting, Oxford University Press

CODE: 104EM24

M.B.A DEGREE EXAMINATION
First Semester
M.B.A.::Paper IV – Fundamentals of Accounting

MODEL QUESTION PAPER

Time : Three hours **Maximum : 70 marks**

Section –A **5X3=15 M**

Answer Any FIVE of the following

1. a) Accounting concepts
   b) GAAP
   c) Inventory
   d) BRS
   e) Income statement
   f) Balance sheet
   g) Liquidity Ratios
   h) ROE
   i) HR Account
   j) Inflation Accounting

Section –B **5X8=40 M**

Answer the following questions

2. a) Define Accounting? Explain about the Principles of accounting

   (OR)

   b) Discuss about different types of Subsidiary books.

3. a) Prepare & presented the hypothetical Income Statement and Balance Sheet

   (OR)

   b) From the following particulars prepare a Bank Reconciliation Statement to find out the causes of difference in two balances as on August 31st, 2016 for ABC Ltd.
      i. Bank Overdraft as per Bank Statement amount of Rs. 17,000
      ii. Check issued but not enchased during the August amount of Rs. 2,200
      iii. Dividends on shares collected by banker amount of Rs. 2,300
      iv. Interest charged by the bank recorded twice in the Cash Book Rs. 500
      v. Check deposited as per Bank Statement not entered in Cash Book Rs. 3,400
      vi. Credit side of the Bank column in Cash Book cast short Rs. 1,000
      vii. Clubs dues paid by bank as per standing instruction not recorded in Cash Book Rs.1,20
      viii. Uncredited check due to outstation Rs. 3,900

4. a) What is Ratio? Explain the importance of ratios

   (OR)

b) Calculate Debtors Velocity from the following details:
Opening Balance of Debtors Rs. 10,000
Credit Sales during the year Rs. 20,000
Sales Returns Rs. 1,000
Discount on Sales Rs. 50
Cash collected from Debtors during the year Rs, 5,000
Bad Debts Rs. 500
Bad Debt Provision at 10%

5. a) Define marginal costing? Discuss different marginal costing techniques

(OR)

b) Assume that as an investor, you are planning to enter the construction industry as a panel formwork supplier. The potential number of forthcoming projects, you forecasted that within two years, your fixed cost for producing formworks is Rs. 300,000. The variable unit cost for making one panel is Rs. 15. The sale price for each panel will be Rs. 25. If you charge Rs. 25 for each panel, how many panels you need to sell in total, in order to start making money?

.

6. a) Discuss about Responsibility Accounting.

(OR).

b) Explain about accounting for price level changes.

Section –C **1X15=15 M**

(Compulsory)

7. Case Study

Calculate Debtors Velocity from the following details:

Opening Balance of Debtors Rs. 10,000
Credit Sales during the year Rs. 20,000
Sales Returns Rs. 1,000
Discount on Sales Rs. 50
Cash collected from Debtors during the year Rs, 5,000
Bad Debts Rs. 500
Bad Debt Provision at 10%

CONTENTS

LESSON – 1
INTRODUCTION TO ACCOUNTING

OBJECTIVES:

After going through this lesson, the student will be able to know

- The Concept of Accounting and its role in recording, summarizing, and analysing financial transactions.
- Describe the Importance of Accounting in business decision-making, financial transparency, and regulatory compliance.
- Understand the Scope of Accounting by identifying its different branches, including financial, managerial, and cost accounting.
- Recognize Generally Accepted Accounting Principles (GAAP) and their role in ensuring consistency and reliability in financial reporting.

STRUCTURE:

1.1 Introduction to Accountancy

1.2 Definition.

1.3 Importance of Accountancy

1.4 Accountancy Functions

1.5. Branches of Accounting

1.6. Book keeping - Accounting

1.7 Advantages, limitations of Accountancy.

1.8 Basic Accounting Concepts

1.9. Methods of Accounting

1.10 Types of Account :Personal Account

1.11 Accounting process.

1.12 Summary.

1.13 Self-Assessment Questions.

1.14 Technical Terms used

1.15. Suggested Readings

1.1. INTRODUCTION TO ACCOUNTANCY:

Human beings do one kind of work or other for leading their livelihood. Some may go for employment; some may do their own profession and some depend on their own business. In ordinary language business means a state of being busy. In Commercial language business means buying and selling of commodities with a profit. Business is as old as civilization itself.

When business operations are very small the businessman is able to remember all the operations. But when industrialization enhanced the business operations it become difficult for the business man to keep all the operations in his mind. Then he started recording it . The art of recording business operations is called Accountancy. That is why Accountancy is called the language of Business.

Accounting became an important tool In helping decision-making by the management as it makes available the required information. Accounting, therefore, means an information system that provides the accounting information to users thereof to arrive at the correct decision.

Meaning of Accounting

"Accounting is the art of recording, classifying and summarizing in a significant manner and in terms of money, transactions and events which are in part at least, of financial character and interpreting the result thereof."

Evolution of Accountancy:

The evolution of accounting dates back thousands of years. Although the principles still remain the same, technology has drastically altered the way merchants handle the accounting process.

In the earliest days of civilisation, accounting was done by stewards who managed the properties of wealthy people. They rendered accounts periodically to the owners of property. The stewardship accounting is said to be the root of accounting. Records of debit and credit were found in the 12th century itself.

In 1494, Luca Pacioli an Italian developed double-entry book-keeping system. Due to the industrial revolution in the 18th and 19th centuries, large scale operations were carried on and joint stock companies emerged as an important form of organisation which required separation of ownership from management. Hence, to safeguard the interest of owners and investors, the business establishments required detailed information about business which paved the way for development of comprehensive financial accounting information system.

In the 20th century, the need for analysis of financial information for managerial decision making caused emergence of Management Accounting as a separate branch of accounting.

Though accounting was individual centric in the initial stage of evolution of accounting, it has gradually developed into Social Responsibility Accounting in the 21st century, due to the vast growth in business activities as a result of development in various fields. Thus, accounting has become inevitable in the modern world for business.

Nature of Accounting / Scope of Accounting:

From the above definition it can be evident that in order to appreciate the exact nature of accounting, we must understand the following relevant aspects of the definition:

• Economic Events
• Identification, Measurement, Recording and Communication
• Organization
• Interested Users of Information

1. Economic Events: An economic event is known as a happening of consequence to a business organization which consists of transactions and which are measurable in monetary terms.

2.Identificationmeasurement, recording, and communication:
1. Identification: It means determining what transactions to record i.e. to identify events that are to be recorded.
2. Measurement: It means quantification (including estimates) of business transactions into financial terms by using monetary units.
3. Recording: Once the economic event is identified and measured in financial terms, these are recorded in books of accounts in monetary terms and in chronological order.
4. Communication: The economic events are identified, measured, and recorded in order that the pertinent information is generated and communicated in a certain form to management and other internal and external users.

3. Organization: It refers to a business enterprise, whether for profit or not-for-profit motive.

4. Interested user of information: Accounting is a means by which necessary financial information about business enterprise is communicated and is also called the language of business. Many users need financial information in order to make important decisions.

1.2 DEFINITION:

Different people have defined Accountancy in deferent ways by going through these we can understand the nature of Accountancy.

Accounting can be defined as a process of reporting, recording, interpreting and summarising economic data. The introduction of accounting helps the decision-makers of a company to make effective choices, by providing information on the financial status of the business.

The American institute of certified public Accounting has defined financial accounting as "the art of recording, classifying and summarising in a significant manner and in terms of money transactions and events which in part, at least of a financial character and interpreting the results there of"

American Accounting Association defines accounting as " the process of identifying, measuring and communicating economic information to permit informed judgements and decisions by users of the information"

Accountancy is the science of recording and classifying business transactions and events primarily of a financial character and the art of making significant summaries, analysis and interpretations of those transactions and events and communication of the results to persons who must make decisions or form judgements (Smith & Ashbun)

1.3. IMPORTANCE OF ACCOUNTANCY:

Accountancy is crucial for businesses, organizations, and individuals as it helps track financial transactions, ensure regulatory compliance, and support strategic decision-making. Here are some key reasons why accountancy is important:

To maintain a systematic record of business transactions

- Accounting is used to maintain a systematic record of all the financial transactions in a book of accounts.
- For this, all the transactions are recorded in chronological order in Journal and then posted to principle book i.e. Ledger.

To ascertain profit and loss

- Every businessman is keen to know the net results of business operations periodically.
- To check whether the business has earned profits or incurred losses, we prepare a "Profit & Loss Account".

To determine the financial position

- Another important objective is to determine the financial position of the business to check the value of assets and liabilities.
- For this purpose, we prepare a "Balance Sheet".

To provide information to various users

- Providing information to the various interested parties or stakeholders is one of the most important objectives of accounting.
- It helps them in making good financial decisions.

To assist the management

- By analysing financial data and providing interpretations in the form of reports, accounting assists management in handling business operations effectively.

1.4. FUNCTIONS OF ACCOUNTANCY:

Accounting plays a vital role in financial management and business operations. Its functions can be categorized into several key areas:

1. Recording Financial Transactions (Bookkeeping)

- Systematic recording of all financial transactions in a structured manner.
- Ensures accuracy and completeness in financial records.

2. Classifying and Summarizing Financial Data

- Organizes transactions into categories (e.g., assets, liabilities, income, expenses).
- Summarizes data into financial statements for easy analysis.

3. Preparing Financial Statements

- Generates essential reports such as:
  - **Income Statement** (Profit & Loss) – Shows revenue, expenses, and profit.
  - **Balance Sheet** – Displays financial position (assets, liabilities, equity).
  - **Cash Flow Statement** – Tracks cash inflows and outflows.

4. Financial Analysis and Interpretation

- Helps stakeholders analyse profitability, liquidity, and financial health.
- Assists management in decision-making and strategic planning.

5. Budgeting and Forecasting

- Assists in setting financial goals and estimating future revenues and expenses.
- Helps organizations allocate resources efficiently.

6. Cost Control and Management Accounting

- Identifies and controls costs to improve efficiency.
- Helps in pricing decisions, cost-cutting strategies, and resource allocation.

7. Taxation and Compliance

- Ensures accurate tax calculations and timely filing.
- Helps businesses comply with tax regulations and avoid penalties.

8. Auditing and Internal Control

- Ensures financial records are accurate and free from fraud.
- Strengthens internal controls to safeguard company assets.

9. Decision-Making Support

- Provides financial data for investment, expansion, and operational decisions.
- Assists in risk assessment and business strategy formulation.

10. Communication of Financial Information

- Communicates financial performance to stakeholders, investors, and regulatory bodies.
- Builds transparency and trust among business partners.

1.5. BRANCHES OF ACCOUNTING:

The main branches of accounting are:

1. Financial Accounting

Financial accounting involves recording and classifying business transactions, and preparing and presenting financial statements to be used by internal and external users.In the preparation of financial statements, strict compliance with generally accepted accounting principles or GAAP is observed. Financial accounting is primarily concerned in processing historical data.

2. Cost Accounting

Often times considered as a subset of management accounting, cost accounting refers to the recording, presentation, and analysis of *manufacturing costs*. Cost accounting is very useful in manufacturing businesses since they have the most complicated costing process.

3. Management Accounting

Managerial or management accounting focuses on providing information for use by *internal users*, the management. This branch deals with the needs of the management rather than strict compliance with generally accepted accounting principles.

4. Tax Accounting

Tax accounting helps clients follow rules set by tax authorities. It includes tax planning and preparation of tax returns. It also involves determination of income tax and other taxes, tax advisory services such as ways to minimize taxes legally, evaluation of the consequences of tax decisions, and other tax-related matter.

5. Social accounting:

Social accounting is concerned with analyzing and evaluating organizational impact on society and its environment. It measures the social costs and benefits of various organizational activities. For example, accountants in this area might analyze and evaluate the use of federal and state land or the use of welfare funds in a large city. Other accountants might analyze and evaluate the environmental impact of acid rain.

6. Human Resource Accounting:

Human Resource Accounting is **the process of identifying and measuring data about Human Resources and communicating this information to the interested parties**. ... Thus, Human Resource Accounting is a term applied by the Accountancy Profession to quantify the cost and value of employees of their employing organization.

1.6. BOOK-KEEPING:

Book keeping is an art of recording the transactions in the books of accounts. Only those transactions which bear a monetary value are recorded. It is the first step of accounting. Its main purpose is record keeping or maintenance of books of accounts, It should not be confused with accounting.

The bookkeeper maintains bookkeeping records. Accurate bookkeeping is critical for business as it gives a piece of reliable information on the performance of a company. Bookkeeping process consists of the following steps:

1. Identifying a financial transaction
2. Recording a financial transaction
3. Preparing a ledger account
4. Preparing trial balance

Differences between Book – Keeping and Accounting:

Basis	Bookkeeping	Accounting
Definition	Bookkeeping includes identifying and recording all financial transactions.	Accounting is the process of measuring and recording all financial transactions that happened in a financial year.
Objective	The objective of Bookkeeping is to prepare original books of accounts.	The objective of accounting is to record, analyse, and interpret all the transactions.
Scope	It has a limited scope.	Accounting has a wider scope as compared to Bookkeeping.
Decision Making	Management cannot take decisions on the basis of bookkeeping because it is only concerned with the management of books.	With the help of accounting, management can take decisions as it is responsible for communicating the information.
Analysis	The information is only recorded in the bookkeeping and not analysed.	In Accounting, analysis is done to obtain important insights into the business.
Skill Required	There is no need of having any special skills to record the transactions in Bookkeeping.	Accounting requires special skills because it is analytical in nature.

Basis	Bookkeeping	Accounting
Reflecting Position of Business	Bookkeeping does not show the financial position of the business as it is only concerned with recording.	Accounting shows the net results of the business, including profit earned and the assets and liabilities of the business.
Principles of Accountancy	Accounting concepts and conventions are followed in Bookkeeping.	The methods of interpretation and reporting of transactions in accounting differ from firm to firm.
Level of Work	Bookkeeping is restricted to a low level of work, which is clerical in nature.	Accounting is concerned with low, medium, and even top-level management.
Supervision	The Book-keeper does not supervise the work of an Accountant.	An Accountant is responsible for supervising and checking all the work done by Book-keeper.

Accounting Terms

- **Business Transaction**: A Business transaction is an economic activity of business that changes its financial position.
- **Account:** It is a record of all business transactions relating to a particular person or item. It is a T Shaped proforma.
- **Capital:** It refers to the amount invested by the owner in a business. The amount invested could be in the form of cash, goods, etc.
- **Drawing**: Any cash or goods withdrawn by the owner for personal use made out of business funds are known as drawings.
- **Profit**: It is the excess of total revenue over total expense of a business. Profit =Revenue-Expenses.
- **Loss:** The excess of expenses over related revenue is known as loss. Loss= Expenses-Revenue.
- **Gain:** It is a monetary benefit resulting from events or transactions which are incidental to business like profit on sale of fixed assets.
- **Stock:** It includes goods unsold on a particular date.
- **Purchases:** It refers to the amount of goods bought by business for resale or use in production. it can be of cash or credit.
- **Purchase return:** When purchased goods are returned to suppliers, it is referred to as purchase return.
- **Sales**: It means transfer of goods or services for money in the normal course of business.
- **Sales return**: When customers return the goods sold to them it is known as sales returns.

- **Debtors:** It refers to those persons whose business has been sold goods on credit and payment has not been received yet.
- **Creditors:** It refers to those persons whose business buys goods on credit and payment has not been done yet.
- **Voucher**: A voucher is a written document which is created in support of a particular transaction. It may be in the form of a cash memo, invoice or receipt. Voucher is a necessary component of auditing.
- **Income:** It is the difference between revenue and expense.
- **Expense**: It is the amount used in order to produce and sell goods and services.
- **Discount:** It is the rebate given by the seller to the buyer. It is of 2 types: Cash Discount and Trade Discount.
- **Cash Discount**: When discount is allowed to customers for making prompt payment. It is always recorded in books of accounts.
- **Trade Discount**: This is a type of discount allowed by the sellers to their customers at a fixed percentage on the list price of goods. and also it is not entered in the books of accounts.
- **Bad Debts:** It refers to the amount that debtor has not paid even after repeated reminders and has no intention of paying in the future.
- **Assets:**An asset is a source of economic value that a business or an individual owns expecting its future benefits. Assets are listed on the left side of a company's balance sheet and shown to increase the company's value. Popularly it is classified as Fixed Assets, Current Assets, Intangible assets and fictitious assets
- **Liabilities: Liabilities** are the company's obligations that are yet to be completed or due for payment and are listed on the right side of the balance sheet. It is of 4 types;**.**Fixed Liabilities, Current Liabilities,Non-current Liabilities, Contingent liability.
- **Expenditure** It involves spending cash or incurring a liability for the purpose of acquiring assets, goods or services. It is of 3 types.

1. **Revenue Expenditure:** It refers to any expenditure, the full benefit of which is received during one accounting period.ex-salaries,rent.
2. **Capital Expenditure**: It refers to expenditure, the benefit of which is received during more than one year. Ex- Machinery.
3. **Deferred Revenue Expenditure**: It refers to expenditure which are revenue in nature but benefit of which is likely to be derived over no of years. Example-Advertisement.

- **Discount:** It is the rebate given by the seller to the buyer. It is of 2 types: Cash Discount and Trade Discount.
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- **Bad Debts:** It refers to the amount that debtor has not paid even after repeated reminders and has no intention of paying in the future.

1.7. ADVANTAGES, LIMITATIONS OF ACCOUNTANCY:

The following are the main advantages of accounting:

1. Provide information about financial performance

- Accounting provides factual information about financial performance during a given period of time
- Like, profit earned or loss incurred over a period and financial position at a particular point of time.

2. Provide assistance to management

- Accounting helps management in business planning, decision making and in exercising control.
- For this, it provides financial information in the form of reports.

3. Facilitates comparative study

- By keeping systematic records and preparation of reports at regular intervals, accounting helps in making a comparison.

4. Helps in settlement of tax liability

- Systematic accounting records help in settlement of various tax liabilities. Such as – Income Tax, GST, etc.

5. Helpful in raising loan

- Banks and Financial Institutions grant a loan to the firm on the basis of appraisal of the financial statement of the firm.

6. Helpful in decision making

- Accounting provides useful information to the management for taking decisions.

Limitations of Accounting

Following are the limitations of accounting:

- **Accounting is not precise**: Accounting is not completely free from personal bias or judgment.
- **Accounting is done on historic values of assets:** Accounting records assets at their historical cost less depreciation. It does not reflect their current market value.
- **Ignore the effect of price level changes:** Accounting statements are prepared at historical cost. So changes in the value of money are ignored.
- **Ignore the qualitative information:** Accounting records only monetary transactions. It ignores the qualitative aspects.
- **Affected by window dressing:** Window dressing means manipulation in accounting to present a more favourable position of the business than the actual position

Users of Accounting Information:

Users may be categorised into internal users and external users.

(A) Internal Users

- **Owners**: Owners contribute capital in the business and thus they are exposed to maximum risk. So, they are always interested in the safety of their capital.

- **Management**: Accounting information is used by management for taking various decisions.
- **Employees**: Employees are interested in the financial statements to assess the ability of the business to pay higher wages and bonuses.

(B) External Users

- **Banks and financial institutions:** Banks and Financial Institutions provide loans to business. So, they are interested in financial information to ensure the safety and recovery of the loan.
- **Investors:** Investors are interested to know the earning capacity of business and safety of the investment.
- **Creditors:** Creditors provide the goods on credit. So they need accounting information to ascertain the financial soundness of the firm.
- **Government:** The government needs accounting information to assess the tax liability of the business entity.
- **Researchers:** Researchers use accounting information in their research work.
- **Consumers:** They require accounting information for establishing good accounting control, which will reduce the cost of production.

1.8. BASIC ACCOUNTING CONCEPTS:

Accountancy is often referred to as an art – the art of recording, classifying and summarizing financial information. As is the case with any form of art, accountancy also involves the use of one's creative skills, to maintain a record of financial transactions. However, if free rein is given on the system of accountancy to be followed, there will be no limit on the scope of manipulation of accounts.

In an environment where financial statements are presented to external stakeholders such as investors, banks, stock exchanges, revenue departments, government, etc., there arises a need for an accounting framework on the basis of which the financial transactions should be recorded so as to make the resulting financial statements comparable. This need led to the framing of the Generally Accepted Accounting Principles (GAAP).

What is GAAP:

Generally Accepted Accounting Principles (GAAP) are basic accounting principles and guidelines which provide the framework for more detailed and comprehensive accounting rules, standards and other industry-specific accounting practices. For example, the Financial Accounting Standards Board (FASB) uses these principles as a base to frame their own accounting standards

Accounting Concepts

The accounting concept is a process that helps prepare and record the financial transactions in an organisation, along with organising the bookkeeping processes. When you implement accounting concepts effectively, it encourages businesses to integrate and interpret financial transactions into meaningful accounting processes.

It is always important for business accountants and owners to clearly understand the basic accounting concepts. Such understanding helps in integrating uniformity and consistency within the business accounting processes.

Both accounting concepts and principles are important to implement within the organisation as they help analyse different financial rules, theories and situations and make financial decisions based on them.

Types of Accounting Concepts

1. Going concern concept

According to the going concern concept, a firm will continue to operate indefinitely. This assumption has an impact on financial statement preparation, allowing accountants to portray long-term assets at their historical cost and giving stakeholders a more realistic picture of a company's financial health in the long run.

2. Business entity concept

In terms of the business entity concept, a business is a distinct economic entity from its owners. This notion guarantees that personal and corporate money are kept separate, allowing for transparent financial reporting. It facilitates measuring the success of the firm independent of its owners' financial actions, fostering openness and accountability.

3. Accrual concept

The accrual concept mandates that revenues and costs be recognised as they are received or spent, regardless of financial movements. This idea improves financial statement accuracy by matching them with the economic content of transactions and giving stakeholders a more complete knowledge of a company's financial status.

4. Money measurement concept

According to the money measurement concept, only monetary transactions should be documented in accounting. This approach makes quantification and comparison easier, ensuring that financial statements contain relevant and comparable information for decision-making.

5. Accounting period concept

The accounting period concept separates a company's economic existence into discrete periods, often a fiscal year, for financial reporting. This approach enables timely and consistent reporting, assisting stakeholders to evaluate a company's performance and make educated decisions at precise intervals.

6. Dual aspect concept

According to the dual aspect concept, every financial transaction includes two components: a debit and a credit. This double-entry technique keeps the accounting equation (Assets = Liabilities + Equity) balanced, allowing for a systematic approach to documenting and assessing financial transactions.

7. Revenue realisation concept

As to the income realisation concept, income should be recognised when it is earned, regardless of when payment is received. This notion prevents revenue from being recognised prematurely, aligning financial statements with the actual delivery of products or services and improving the trustworthiness of reported revenues.

8. Historical cost concept

The historical cost concept assesses assets at their original cost, giving financial reporting a solid and objective foundation. This notion improves dependability by minimising subjective values and guaranteeing that financial statements accurately represent asset purchase costs.

Accounting Conventions

Accounting conventions, also known as doctrine, are known to be **principles** that act as restrictions regarding **organisational transactions** that are **unclear or complicated**. Even though accounting conventions do not act as legally binding, these are considered generally accepted principles helping to maintain consistency within the financial statements of a company.

The standard financial reporting system processes the information and uses accounting conventions to compare the different aspects of the transaction, along with analysing its relevance, application and full disclosure in the financial statements. The accountants in a company adopt the use of these conventions so that they act as a guide while preparing accounting statements and reports.

Types of Accounting Conventions

Similar to accounting concepts, accounting conventions also have different types that help implement the concept in business financials efficiently. Here is a list showcasing the types of accounting conventions:

1. Convention of conservatism

One of the most important accounting conventions that accountants apply in the business is the conservatism principle. This principle suggests that if two values are associated with a specific transaction, the lowest must be recorded on the asset or income side of the financial statement. In this case, the possibility of loss is taken care of.

This accounting convention aims to understate profits and assets while dealing with business losses. Such practice mostly helps in enhancing the overall reliability of company stakeholders on the financial statements.

2. Convention of materiality

This accounting convention is related to all the relative information available for an item or event of a company's financial transactions. An item is generally considered material with respect to the influence it has on an investor's decisions. The aspect of materiality differs from one organisation to another.

For instance, in the case of a small company, certain information can be material but the same information may not be material for a large organisation. Hence, the application of materiality convention entirely depends on the context of analysis.

3. Convention of consistency

Consistency convention denotes that the same principles of accounting must be implemented to prepare the business financial statements, year after year. From the prepared financial statements, it is important to draw a meaningful conclusion of the same company when a comparison is made of the statements over a period.

Such financial comparisons can only be made if the same accounting practices and principles are followed uniformly by the firm over a period of time. In the case of different accounting policies implemented every year, the comparison will not stand fruitful, and the result can also impact financial decisions.

4. Convention of full disclosure

The principle of full disclosure mandates the comprehensive revelation of all pertinent details in financial statements. This entails a thorough, impartial, and ample disclosure of accounting information.

'Adequate' denotes a satisfactory amount of information to be divulged, 'fair' implies equitable treatment for users, and 'full' demands a complete and detailed presentation. Consequently, the convention underscores the necessity for financial statements to fully disclose all pertinent information.

1.9. METHODS OF ACCOUNTING:

Methods of accounting refer to the two systems of recording the financial transactions in the books of accounts. These two systems are the single-entry system and the double or dual entry system

Single Entry System

This system is also known as pure entry system. It does not follow the traditional dual recording format. Instead, in a single entry system, only a Cash Book will be maintained. All cash transactions will be recorded in the Cash Book. No other Ledgers find a place in this system. All transactions of personal nature are simply recorded in a rough book.

Double Entry System

This is the more traditional and conventional system for recording transactions in financial accounting. This is a scientific method which has some rules and principles which must be followed. The basic essence of the double entry system is that every transaction will affect two accounts. This is known as the debit and credit rule – every credit entry, there must be a corresponding debit entry

Account:

An account is a detailed description of the transactions carried out by a certain business in relation to a specific person, company, or their representatives or objects. When a business conducts transactions with both consumers and suppliers, for example, both suppliers and customers are referred to as separate accounts. Similarly, businesses may purchase physical goods like land, machinery, plants, buildings, and so on, and each of these tangibles is considered as a separate account, even if they are all tied to things.

1.10 TYPES OF ACCOUNT :PERSONAL ACCOUNT:

Personal accounts are accounts that are associated with an individual, a company, a firm, or a collection of associations, among other things. These people could be natural people, artificial people, or representatives, depending on the situation. Eg. Charitable trusts, ABC Bank Ltd, X company Ltd., etc. Company Ltd., etc.

1. **Natural Personal Accounts:** Natural Persons are human beings. Therefore, we include the accounts belonging to them under this head. For instance, Debtors, Creditors, Capital A/c, Drawings A/c, etc.
2. **Artificial Personal Accounts:** Artificial persons are not human beings but can act and work like humans. They have a separate identity in the eyes of law and are capable to enter into agreements. These include H.U.F, partnership firms, insurance companies, co-operative societies, companies, municipal corporations, hospitals, banks, government bodies, etc. For example, Bank of Baroda, Oriental Insurance Co,
3. **Representative Personal Accounts:** These accounts represent the accounts of natural or artificial persons. When the expenses become outstanding or pre-paid and incomes

become accrued or unearned, they fall under this category. For example, Outstanding Salary A/c, Pre-paid Rent A/c, Accrued Interest A/c, Unearned Brokerage A/c, etc.

Rules for This Account

Dr The Receiver

Cr – The Giver

Real Accounts: These are the accounts of all the assets and liabilities of the organization. We do not close these accounts at the end of the accounting year and appear in the Balance Sheet. Thus, we carry forward the balances of these accounts to the next accounting year. Therefore, we can also say that these are permanent accounts. We can further classify these into:

1. **Tangible Real Account:** It consists of assets, properties or possessions that can be touched, seen and measured. For example, Plant A/c, Furniture and Fixtures A/c, Cash A/c, etc.
2. **Intangible Real Account:** It consists of assets or possessions that cannot be touched, seen and measured but possess a monetary value and thus can be purchased and sold also. For example, Goodwill, Patents, Copyrights, etc.

Rules for this Account

Dr ----- What Comes in

Cr ---- What goes out

Nominal Accounts: Nominal Accounts are the accounts relating to the expenses, losses, incomes, and gains. These are temporary accounts and thus we need to transfer their balances to Trading and Profit and Loss A/c at the end of the accounting year. Therefore, these accounts have no balance to be carried forward next year as they are closed.

Rules for this Account

Dr ------ All expenses and Loses

Cr------- All incomes and Gains

Solved Example on Types of Accounts

Analyse the following transactions and state the types of accounts that need to be debited and credited.

1. Surya commenced business with cash ₹ 1, 00,000.
2. Purchased machinery for cash ₹ 10,000
3. Purchased goods from Romil on credit ₹ 50,000
4. Sold goods for cash ₹ 10000
5. Paid wages to Jaimin ₹ 15,000
6. Paid to Romil ₹ 25000
7. Wages to be paid to Raj is outstanding ₹ 5000
8. Brokerage earned but not received ₹ 2000
9. Deposited ₹ 15000 into the bank.
10. Suryani withdrew cash for personal use ₹ 10000

Ans:Analysis of transactions

Transaction	Accounts	Nature of Accounts	Reason for Effect on Accounts	Debited or credited
1.	Cash A/c Capital A/c	Real A/c Personal A/c	Cash is coming in Surya is the giver	Debit Credit
2.	Machinery A/c Cash A/c	Real A/c Real A/c	Machinery is coming in Cash is going out	Debit Credit
3.	Purchases A/c Romil's A/c	Real A/c Personal A/c	Goods are coming in Romil is the giver	Debit Credit
4.	CashA/c Sales A/c	Real A/c Real A/c	Cash is coming in Goods are going out	Debit Credit
5.	Wages A/c Cash A/c	Nominal A/c Real A/c	Wages are an expense Cash is going out	Debit Credit
6.	Romil's A/c Cash A/c	Personal A/c Real A/c	Romil is the receiver Cash is going out	Debit Credit
7.	Wages A/c Wages Outstanding A/c	Nominal A/c Representative Personal A/c	Wages is an expense Wages is payable to Raj and thus he is our creditor.	Debit Credit
8.	Accrued Brokerage	Representative Personal A/c	Brokerage is receivable from	Debit

	A/c Brokerage A/c	**Nominal A/c**	**the client, so the client is our debtor Brokerage is an income**	**Credit**
9.	**Bank A/c Cash A/c**	**Personal A/c Real A/c**	**The bank is receiving theamount Cash is going out**	**Debit Credit**
10.	**Drawings A/c Cash A/c**	**Personal A/c Real A/c**	**Surya is the receiver Cash is going out**	**Debit Credit**

1.11. ACCOUNTING PROCESS:

Accounting is a process that helps in recording the financial transactions which are necessary for the business. This process includes summarizing, analyzing and reporting the transactions to give an overview to the agencies, regulators and tax collection entities. The financial statements that are used in accounting are in a concise summary format. Financial transactions which occurred over an accounting period summarizes the company's operations, the financial position and also the cash flows.

Accounting Process Steps:
The accounting is processed into three separate types of transactions which were used to record the business transactions. The information is then recorded into financial statements. The transactions are:

The First Step: to ensure that the entries are reversed from the previous period.

The Second Step: comprises the steps which are needed to record the individual business transactions in the accounting records.

The Third Step: is the period-end processing that is required to close the books and produce the financial statements.
First Step Is to verify that all the transactions are designated as reversing entries in the preceding periods which have actually been reversed. Doing this will ensure that the transactions are not recorded twice in the same period. These transactions are generally tagged as being the reversing entries in the accounting software.

Second Step The second step consists of further four steps:
Identifying the transaction. Preparing the document. Identifying the accounts.Recording the transactionThe above-mentioned four steps are part of an accounting process that is used to record the individual business transactions in the accounting records.

Third Step In this last step, the final recording is done:

Prepare Trial Balance - The trial balance lists the balance left in all the accounts. The total of all the debit in the trial balance equals the total of all the credit, while in contrast to this, there is an error in the entry of the original transactions which must be researched and corrected.

Adjust the Trial Balance - This may be required to adjust the trial balance, correct the errors or create the allowances.Prepare an Adjusted Trial Balance - This is an original trial balance, plus or minus and other such adjustments are to be subsequently made.

Prepare Financial Statements - The financial statements are then adjusted from the trial balance. The asset, liability, and shareholders' equity items are recorded in the balance sheet. Close the Period - For closing the period, the shifting of the balances is done in the revenue and expense accounts into the retained earning account.

1.12 SUMMARY:

Accounting is the process of recording, summarizing, analysing, and reporting financial transactions of a business. It plays a crucial role in financial management by providing accurate information for decision-making, compliance, and strategic planning. The scope of accounting extends to various functions, including recording financial transactions, classifying and summarizing data, analysing financial statements, auditing, cost accounting, taxation, and managerial accounting. These functions help businesses maintain financial control, ensure compliance with regulatory requirements, prevent fraud, and assist in investment decisions.

Accounting is categorized into three main types of accounts: real, personal, and nominal. Real accounts pertain to assets and liabilities, such as cash or machinery accounts. Personal accounts are related to individuals, firms, or organizations, such as debtors and creditors accounts. Nominal accounts involve expenses, incomes, gains, and losses, such as rent or salary accounts..

Overall, accounting is an essential function for any business or organization, ensuring financial stability, transparency, and effective management of resources.

1.13 SELF-ASSESSMENT QUESTIONS:

Short Answer Questions:
1. Explain the scope of accounting and its importance in business.
2. Discuss the advantages of accounting in financial decision-making.
3. Describe the three types of accounts with suitable examples
4. Explain the significance of personal, real, and nominal accounts in financial transactions
5. What are the key functions of accounting in an organization

Essay Questions:
1.Discuss the scope of accounting and its significance in business operations.
2. Explain the advantages of accounting and how it contributes to financial management.
3. Describe the different types of accounts in accounting with suitable examples.
4. Analyse the importance of accounting in fraud prevention and regulatory compliance.

5. Describe the functions of accounting and how they impact business growth and sustainability

1.14. TECHNICAL TERMS USED:

1. **1.Accounting –** The process of recording, summarizing, and reporting financial transactions of a business.
2. **Financial Transactions –** Any exchange of money, goods, or services that affects the financial position of a business.
3. **Bookkeeping –** The systematic recording of financial transactions in accounts.
4. **4.Financial Statements –** Reports that summarize financial activities, including the balance sheet, income statement, and cash flow statement.
5. **Assets –** Resources owned by a business that have economic value, such as cash, inventory, and property.
6. **Liabilities –** The financial obligations or debts a company owes to external parties, such as loans and accounts payable.
7. **Double-Entry System –** An accounting method where every transaction is recorded in two accounts (debit and credit) to ensure accuracy.
8. **Nominal Accounts –** Accounts related to expenses, incomes, losses, and gains, such as rent, salaries, and interest income.
9. **Ledger –** A collection of accounts where all financial transactions are recorded and classified.
10. **10.Trial Balance** – A statement that checks the accuracy of ledger accounts by ensuring total debits equal total credits.

1.15. SUGGESTED READINGS:

1. Accounting for Managers – SN Maheswari
2. Accountancy – MC Shukla
3. Accountancy – SP Jain & KL Narang

Dr.K. Lalitha

LESSON- 2
JOURNAL & LEDGER

OBJECTIVES:

After completion of the lesson student is able to
1. Understanding the concept of Journal and Ledger in Accountancy
2. How to properly record financial transactions in the journal using the double-entry system.
3. Demonstrates how to transfer journal entries to the appropriate ledger accounts.
4. Help students learn how to maintain and check ledger balances for accuracy

STRUCTURE:

2.1. INTRODUCTION:

In accountancy, a journal and ledger are essential for recording financial transactions systematically. The journal, known as the book of original entry, is where all transactions are first recorded in chronological order using the double-entry system, ensuring that every transaction affects two accounts—one debited and the other credited. Each journal entry includes a date, the accounts involved, debit and credit amounts, and a brief narration explaining the transaction. Once recorded in the journal, transactions are transferred to the ledger, which is referred to as the book of final entry. The ledger organizes transactions into individual accounts such as Cash, Sales, and Expenses, allowing businesses to track financial activity for each account separately. This classification helps in preparing the trial balance and financial statements. While the journal provides a detailed log of transactions, the ledger helps in summarizing and analysing financial data, making both essential components of an efficient accounting system.

2.2. BUSINESS TRANSACTION:

Business transactions may be classified into two types 1.Cash transactions 2. Credit transactions

1.Cash transactions: If purchase of goods, sale of goods, expenses paid, Income received etc., are for cash then those transactions are known as cash transactions. In case of cash transactions one of the account effected will be cash Account and the other account which should be debited or credit will depends on the nature of the transaction for ex : Purchase of good from X for cash in this transaction personal account i.e. 'x' should not be taken, one account is cash and the other account is goods.

2.Credit transaction: If the payment is deferred for purchase of goods or sale of goods then it is known as credit transaction. In a transaction, name of the supplier or customer is give and it does not contain the word 'for cash' then it is a credit transaction. In case of credit transaction one of the account effected is personal account and the other will be decided depending upon the transaction. See the following examples. goods purchased from Moorthy. Furniture sold to Madhu are credit transactions. If the transaction is goods purchased from Moorthy for cash then it is a cash transaction.

2.3. JOURNAL ENTRY:

Journal is a book of accounts in which all day-to-day business transactions are recorded in a chronological order i.e. in the order of their occurrence. Transactions when recorded in a Journal are known as entries. It is the book in which transactions are recorded for the first time. Journal is also known as 'Book of Original Record' or 'Book of Primary Entry'.

Business transactions of financial nature are classified into various categories of accounts such as assets, liabilities, capital, revenue and expenses. These are debited or credited according to the rules of debit and credit, applicable to the specific accounts. Every business transaction affects two accounts. Applying the principle of double entry one account is debited and the other account is credited. Every transaction can be recorded in journal. This process of recording transactions in the journal is' known as 'Journalising'. In small business houses generally, one Journal Book is maintained in which all the transactions are recorded.

But in case of big business houses as the transactions are quite large in number, therefore journal is divided into various types of books called Special Journals in which transactions are recorded depending upon the nature of transaction i.e. all credit sales in Sales Book, all cash transactions in Cash Book and so on.

Format of Journal Every page of Journal has the following format. It is a columnar book. Each column is given a name written on its top. Format of journal is given below:

Journal

Date	Particulars	Ledger Folio	Dr. Amount (Rs.)	Cr. Amount (Rs.)
(1)	(2)	(3)	(4)	(5)

Column wise details of journal is as : 1. **Date** In this column, we record the date of the transactions with its month and accounting year. We write year only once at the top and need not repeat it with every date. Example: Date 2025, March 15th.

2. Particulars The accounts affected by a transaction i.e the accounts which have to be debited or credited are recorded in this column.

It is recorded in the following way:
In the first line, the account which has to be debited is written and then the short form of Debit i.e. Dr. is written against that account's name in the extreme right of the same column. In the second line after leaving some space from the left of the entry in the first line, the account which has to be credited is written starting with preposition 'To' Then in the third line, Narration for that entry which explains the transaction, the affected accounts of which are entered, is written within Brackets. Narration should be short, complete and clear. After every journal entry, horizontal line is drawn in the particulars column to separate one entry from the other.

Example: Rent paid in cash on 1st March 2025

Date	Particulars
2025	Rent A/c..............................Dr
March 1	To Cash A/c ....
	(Rent paid in cash)

3. Ledger Folio The transaction entered in a Journal is posted to the various related accounts in the 'ledger' (which is explained in another lesson). In ledger-folio column we enter the page-number where the account pertaining to the entry is opened and posting from the Journal is made.

4**. Dr. Amount** In this column, the amount to be debited is written against the same line in which the debited account is written.

5. Cr. Amount In this column, the amount to be credited. is written against the same line in which the credited account is written.

2.4. JOURNALISING:

Each journal entry must have a debit and a credit. Journal entries also include the date of the transaction, titles of the accounts debited and credited (credited account is indented several spaces), the amount of each debit and credit; and an explanation of the transaction also known as a Narration.

2.5. ADVANTAGES OF JOURNAL:

Journalizing the business transaction is done by the majority of businesses. Journal helps a business to keep a systematic record of its financial events. To know the advantages of maintaining the same, we can sum it in the following points:

- Journal records all the financial transactions of a business in one place on a time and date basis.
- The transactions are recorded, in support of a bill, to check the authenticity of each of these journal entries with their bills.

- There is less chance to avoid transactions as in a journal we record every transaction on a date basis.
- The accountant writes each journal entry's narration below every journal entry so that another auditor can audit it without any confusion.
- In a journal, we record these transactions which help in the deep analysis of the two accounts based on a double-entry system, and this prevents a minimum chance of mistake in the journal.
- Journal posts the transactions in their respective ledger accounts. Without making this journal, an accountant will be unable to make the ledger accounts.
- In case of a mistake in the ledger accounts, this can be easily rectified with the help of a journal or by passing a rectified journal entry in the journal.
- All the opening journal entries, closing journal entries and all other transactions which cannot be recorded in any other subsidiary books can be recorded in the journal proper.
- Even in accounting software, journals are required. Accounting software can make an auto system of posting the journal entries to the ledger by their automatic processing system.
- There is a single column of ledger folio, which is very helpful for checking the reference of each account's posting with its original journal entry.

DISADVANTAGES OF JOURNAL

1. When a business has a huge number of transactions, the journal becomes bulky and extensive.
2. The journal does not provide timely information.
3. The establishment of an internal check system is difficult since the journal can only be handled by one person.
4. Cash transactions are frequently kept in a separate ledger known as a "cash book." Those transactions aren't kept in the journal

Transactions relating to Goods:

A. **B. Sales Account:** When goods are sold, then it is represented as Sales A/c.

B. **Purchase Return or Return Outwards Account:** When purchased goods are returned to the supplier, it is denoted as Purchase Return A/c or Return Outwards A/c.

C. **Sales Return or Return Inwards Account:** When goods sold are returned by the customers, it is termed as Sales Return or Return Inwards A/c.

Transactions relating to Proprietor:

The amount invested in the business whether in the means of cash or kind by the proprietor or owner of the business is called capital. The capital account will be credited, and the cash or assets brought in will be debited.

Drawings Account:

Withdrawal of any amount in cash or kind from the enterprise for personal use by the proprietor is termed as Drawings. The Drawings account will be debited, and the cash or goods withdrawn will be debited.

Compound or Composite Journal Entry:

When certain transactions of the same nature happen on the same date, it is preferred to pass a single journal entry instead of passing two or more entries.

Opening Journal Entry:
After closing all the books at the end of a financial year, every business starts its new books at the beginning of each year. Closing balances of all the accounts are carried forward to the new year as opening balances. As it is the first entry in the new financial year, it is called Opening Journal Entry.

2.6. ILLUSTRATION:

Illustration 1
Enter the following transactions in the Journal of Bhagwat and sons..
2025 Amount (Rs)
January 1 Tarun started business with cash 1,00,000
January 2 Goods purchased for cash 20,000
January 4 Machinery Purchased from Vibhu 30,000
January 6 Rent paid in cash 10,000
January 8 Goods purchased on credit from Anil 25,000
January 10 Goods sold for cash 40,000
January 15 Goods sold on credit to Gurmeet 30,000
January 18 Salaries paid. 12,000
January 20 Cash withdrawn for personal use 5,000

Solution. As explained above, before making the journal entries, it is very essential to determine the kind of accounts to be debited or credited. This is shown in the Table:

Tabular Analysis of Business Transactions

Date	Transaction	Affected Accounts	Kind of Accounts	Increase or Decrease in Accounts	Debited Accounts Dr.	Credited Accounts Cr.
2006 January 1	Cash received from the owner Tarun	Cash Capital	Asset Capital	Increase Increase	Cash A/C	Capital A/C
January 2	Good purchased for cash	Goods Cash	Asset Asset	Increase Decrease	Purchase A/C	Cash A/C
January 4	Machinery purchased on credit from Vibhu	Machinery Vibhu	Asset Liability	Increase Increase	Machinery A/C	Vibhu A/C
January 6	Rent paid in cash	Rent Cash	Expense Asset	Increase Decrease	Rent A/C	Cash A/C
January 8	Good purchased on credit from Anil	Purchases Anil (Creditor)	Asset Liability	Increase Increase	Purchase A/C	Anil A/C

January 10	Good sold for cash	Cash Sale	Asset Revenue	Increase Increase	Cash A/C	Sales A/C
January 15	Credit Sales to Gurmeet	Gurmeet (Debtor) Goods	Asset Revenue	Increase Increase	Gurmeet A/C	Sales A/C
January 18	Salaries paid in cash	Salaries Cash	Expense Asset	Increase Decrease	Salaries A/C	Cash A/C
January 20	Cash withdrawn for Personal use	Drawings Cash	Capital Asset	Decrease Decrease	Drawings A/C	Cash A/C

On the basis of the above table, following entries can be made in the journal

Journal of Tarun

Date	Particulars	L.F	Dr. Amount (Rs)	Cr. Amount (Rs)
2006 January 1	Cash A/C Dr. To Tarun Capital A/C (Capital brought in by Tarun)		1,00,000	1,00,000
January 2	Purchase A/C Dr. To Cash A/C (Goods purchased for cash)		20,000	20,000
January 4	Machinery A/C Dr. To Vibhu's A/C (Machinery purchased from Vibhu on Credit)		30,000	30,000
January 6	Rent A/C Dr. To Cash A/C		10,000	10,000
January 8	Purchases A/C Dr. To Anil's A/C (Goods purchased on credit)		25,000	25,000
January 10	Cash A/C Dr. To Sales A/C (Goods sold for cash)		40,000	40,000
January 15	Gurmeet's A/C Dr. To Sales A/C (Goods sold on credit to Gurmeet)		30,000	30,000
January 18	Salaries A/C Dr. To Cash A/C		12,000	12,000

	(Salaries paid)			
January 20	Drawings A/C Dr. To Cash A/C (Cash withdrawn by the owner for Personal Use		5,000	5,000
	Total		**2,72,000**	**2,72,000**

Illustration 2: Enter the following transactions in the books of Supriya, the owner of the business.
2025 January 8 Purchased goods worth Rs.5,000 from Sarita on credit.
January 12 Neha Purchased goods worth Rs.4,000 from Supriya on credit.
January 18 Received a Cheque from Neha in full settlement of her account Rs.3,850. Discount allowed to her Rs.150
January 20 Payment made to Sarita Rs.4,900. Discount allowed by him Rs.100.
January 22 Purchased goods for cash Rs.10,000.
January 24 Goods sold to Kavita for Rs.15,000. Trade discount @ 20% is allowed to her. January 29 Payment received from Kavita by Cheque.

Solution The above transactions will be entered in the journal as follows :

Date	Particulars	L.F	Dr. Amount (Rs)	Cr. Amount (Rs)
2006 January 8	Purchases A/C Dr. To Saritha A/C (Goods purchased on credit from Saritha)		5,000	5,000
January 12	Neha's A/C Dr. To Sales A/C (Goods Sold on Credit to Neha)		4,000	4,000
January 18	Bank A/C Dr. Discount A/C Dr. To Neha's A/C (Payment received from Neha & Discount allowed)		3,850 150	4,000
January 20	Saritha's A/C Dr. To Cash A/C To Discount A/C (Payment made Discount allowed by Saritha)		5,000	4.000 1,000
January 22	Purchases A/C Dr. To Cash A/C (Goods Purchased for cash)		10,000	10,000
January 24	Kavitha A/C Dr. To Sales A/C (Sold Goods to Kavitha on Credit of Rs.15,000/-		12,000	12,000

	less Trade Discount @ 20%)			
January 29	Bank A/C Dr. To Kavitha's A/C (Payment received from Kavitha by Cheque)		12,000	 12,000
	Total		**52,000**	**52,000**

Illustration 3:

BC Ltd. has the following balances in their different ledger accounts on 1st April 2022:

- *Cash: ₹25,000*
- *Closing Stock: ₹20,000*
- *Building: ₹80,000*
- *Debtors: ₹50,000*
- *Creditors: ₹40,000*

Pass the opening journal entry.

Date	Particulars	L.F	Amount(Dr) (Rs)	Amount(Cr) (Rs)
2022 Apr 1	Cash A/C Dr. Closing Stock A/C Dr. Building A/C Dr. Debtors A/C Dr. To Creditors A/C To Capital A/C (Being the previous years balance brought into books)		25,000 20,000 80,000 50,000	 40,000 1,35,000

Note: If the amount of capital is not given in the questions, then we can calculate capital as: Capital = Total Assets – Liabilities

2.7. LEDGER:

A ledger in accounting is a book with many accounts in which records of transactions relating to a particular account are kept. It is often called the major book of Accounts or Final Entry. All transactions, whether credited or debited, are kept in this book. The term 'ledge' means 'shelf'. The word 'Ledger' derives from the 'Ledge'. The record of important transactions that take place is called a ledger. Each ledger means an individual asset, person, revenue, or expense. The process of entering all transactions from the journal to the ledger is called ledger posting. A few ledger posting examples are transactions that are related to banks, cash, building, land, salary, inventory, debts, capital, etc. Hence the ledger is called as Book of Secondary Entry.

Key Features of a Ledger Account:

1.The ledger is the main repository where all journal entries are posted and organized under relevant accounts.

2.Transactions are recorded in two columns—debit and credit—ensuring that total debits always equal total credits.

3. Transactions are listed in the order they occur, making it easier to track and analyse financial activities.
4. Ledger accounts are divided into different categories such as assets, liabilities, income, and expenses, enabling structured financial analysis.
5.The ledger is often referred to as the "final entry book" because all transactions from the journal are summarized here.

Types of Ledger Accounts:
General Ledger: Contains all the accounts that summarize the financial transactions of a business. Includes assets, liabilities, equity, income, and expenses.
Sales Ledger: Also known as the accounts receivable ledger. Records all credit sales made by the business and monitors amounts owed by customers.
Purchase Ledger: Also called the accounts payable ledger. Tracks all credit purchases and monitors amounts payable to suppliers.
Private Ledger: Includes confidential accounts such as capital, drawings, and salaries. Access is restricted to authorized individuals.

Importance of Ledger Accounts:
1**.**Ledger accounts provide a structured way to record and organize all financial transactions, ensuring that data is easy to access and analyse.
2.Ledger balances form the basis for creating accurate financial statements like income statements and balance sheets.
3.Businesses can use ledger accounts to track expenses, income, and profits, helping management make informed decisions.
4.A well-maintained ledger ensures that businesses comply with legal and regulatory standards, simplifying audits and inspections.
5.Ledger accounts help identify and resolve discrepancies in financial records, ensuring accuracy

2.8. FORMAT OF LEDGER IN ACCOUNTING:

A ledger in accounting is a structured record-keeping tool to capture and categorize financial transactions. This organized format is essential for maintaining transparency and accuracy in an entity's financial records.
Below is a tabular representation of the format of a Ledger:

Dr**.** **Cr**

Date	**Particulars**	**Ledger Folio**	**Amount**	**Date**	**Particulars**	**Ledger Folio**	**Amount**
yyyy-mm-dd	Description	Page Number Amount	Amount	yyyy-mm-dd	Description	Page Number Amount	Amount

The formula for Ledger Balance
Ledger Balance = Total Debits - Total Credits
Where: Total Debits: Sum of all amounts recorded in the debit column of the ledger account.
Total Credits: Sum of all amounts recorded in the credit column of the ledger account.

Explanation of Ledger Columns:
Date: The date when the financial transaction occurred, typically in the format "yyyy-mm-dd."

Particulars: A brief description of the transaction, including details about the account or accounts affected. This column provides clarity about what the transaction entails.

Ledger Folio: This column references the page number in the Ledger where the corresponding entry can be found. It aids in cross-referencing and quickly locating specific transactions within the Ledger.

Debit: The amount involved in the transaction recorded on the debit side of the Ledger. Debits increase assets and expenses or decrease liabilities and revenues.

Credit: The amount involved in the transaction recorded on the credit side of the Ledger. Credits increase liabilities and revenues or decrease assets and expenses.

2.9. BALANCING OF LEDGER ACCOUNT:

For the purpose of preparation of the final accounts various ledger accounts should be balanced.
Balance is the difference between the total debits and the total credits of an account.
After finding out the balance it is written on the side showing the smaller total so as to make the totals of the two sides equal.
This is called the 'Balancing' of an account. Balancing is done periodically. It may be daily, weekly, fortnightly, monthly, Quarterly or yearly when it is required.

The procedure of balancing accounts is as follows:
1. Take the totals of the two side of the account concerned.
2. Ascertain the difference between the totals of two sides.
3. Enter the difference in the amount column of the side showing less total, writing against

2.10. ILLUSTRATIONS:

Illustration 1 Journalise the following transactions.
2014 ` January 1 Commenced business with cash 50,000
January 3 Paid into bank 25,000 January
January 5 Purchased furniture for cash 5,000
January.8 Purchased goods and paid by cheque 15,000
January 8 Paid for carriage 500
January 14 Purchased Goods from K. Murthy 35,000
January 18 Cash Sales 32,000
January 20 Sold Goods to Ashok on credit 28,00
January 25 Paid cash to K. Murthy in full settlement 34,200
January 28 Cash received from Ashok 20,000
January 31 Paid Rent for the month 2,000
January 31 Withdrew from bank for private use 2,500

Date	Particulars		L.F	Dr. Amount (Rs)	Cr. Amount (Rs)
2014 January 1	Cash A/C To Capital A/C (Commenced business with cash)	Dr.		50,000	 50,000
January 3	Bank A/C To Cash A/C (Cash paid into bank)	Dr.		25,000	 25,000
January 5	Furniture A/C To Cash A/C (Purchased furniture for cash)	Dr.		5,000	 5,000
January 8	Purchases A/C To Bank A/C (Purchased goods and paid by cheque)	Dr.		15,000	 15,000
January 14	Purchases A/C To K.Murthy A/C (Goods Purchased on Credit)	Dr.		35,000	 35,000
January 18	Cash A/C To Sales A/C (Goods Sold for Cash)	Dr.		32,000	 32,000
January 20	Ashok A/C To Sales A/C (Goods Sold to Ashok on Credit)	Dr.		28,000	 28,000
January 25	K.Murthy A/C To Cash A/C To Discount A/C (Cash paid to K.Murthy & Discount allowed)	Dr.		35,000	 34,200 800
January 28	Cash A/C To Ashok A/C (Cash received from Ashok on Account)	Dr.		20,000	 20,000
January 31	Rent A/C To Cash A/C (Cash paid for Rent)	Dr.		2,000	 2,000
January 31	Drawings A/C To Bank A/C (Cash withdrawn from bank for domestic use	Dr.		2,500	 2,500

Solution

Ledger

Cash A/C

Date	Particulars	JF	Amount (Rs)	Date	Particulars	JF	Amount (Rs)
2014				2014			
Jan 01	To Capital A/C		50,000	Jan 03	By Bank A/C		25,000
Jan 18	To Sales A/C		32,000	Jan 05	By Furniture A/c		5,000
Jan 28	To Ashok A/C		20,000	Jan 08	ByCarriage A/C		500
				Jan 25	ByK.Murthy A/C		34,200
				Jan 31	ByRent A/C		2,000
				Jan 31	ByBalance c/d		35,300
			1,02,000				**1,02,000**
Feb 1	To Balance b/d		35,300				

Capital A/C

Date	Particulars	JF	Amount (Rs)	Date	Particulars	JF	Amount (Rs)
2014				2014			
Jan 31	To Balance c/d		50,000	Jan 01	ByCash A/C		50,000
			50,000				**50,000**
				Feb 1	Balance b/d		50,000

Purchase A/C

Date	Particulars	JF	Amount (Rs)	Date	Particulars	JF	Amount (Rs)
2014				2014			
Jan 08	To Bank A/C		15,000		By Trading A/C		50,000
Jan 14	To K.Murthy A/C		35,000				
			50,000				**50,000**

Carriage A/C

Date	Particulars	JF	Amount (Rs)	Date	Particulars	JF	Amount (Rs)
2014				2014			
Jan 08	To Cash A/C		500		ByTrading A/C		500
			500				**500**

K.Murthy A/C

Date	Particulars	JF	Amount (Rs)	Date	Particulars	JF	Amount (Rs)
2014				2014			
Jan 25	To Cash A/C		34,200	Jan 14	By Purchases		35,000

Jan 25	To Discount A/C		800		A/C		
			35,000				**35,000**

Sales A/C

Date	Particulars	JF	Amount (Rs)	Date	Particulars	JF	Amount (Rs)
2014 Jan 01	To Trading A/C		60,000	2014 Jan 18 Jan 20	By Cash A/C By Ashok A/C		32,000 28,000
			60,000				**60,000**

Ashok A/C

Date	Particulars	JF	Amount (Rs)	Date	Particulars	JF	Amount (Rs)
2014 Jan 20	To Sales A/C		28,000	2014 Jan 28 Jan 31	By Cash A/C By Balance c/d		20,000 8,000
			28,000				**28,000**
Feb 01	Balance c/d		**8,000**				

Rent A/C

Date	Particulars	JF	Amount (Rs)	Date	Particulars	JF	Amount (Rs)
2014	To Cash A/C		2,000	2014	By Profit & Loss A/C		2,000
			2,000				**2,000**

Drawings A/C

Date	Particulars	JF	Amount (Rs)	Date	Particulars	JF	Amount (Rs)
2014 Jan 10	To Bank A/C		2,500	2014 Jan 31	By Balance c/d		2,500
			2,500				**2,500**
Feb 01	To Balance b/d		**2,500**				

Illustration : 2

On 1st April, 2024, Gopal started business with a capital of Rs.50,000. He made the following transactions during the month of April

Date	Particulars	Amount (Rs.)
2024		
April 03	Purchased Goods from Rita	20.000
April 04	Cash paid to Rita	10,000
April 06	Goods sold to Rohit	25,000
April 08	Received cash from Rohit	20,000
April 12	Goods purchased from Rita	12,000
April 18	Cash paid to Rita	20,000
April 25	Goods sold to Rohit	10,000
April 30	Received cash from Rohit	6,000

Journalise the above transactions and post them into ledger accounts.

Solution:

Books of Mr. Gopal
Journal

Date	Particulars		L.F	Dr. Amount (Rs)	Cr. Amount (Rs)
2014 April 01	Cash A/C To Capital A/C (Being started business with cash by Mohit)	Dr.		50,000	50,000
April 03	Purchases A/C To Rita's A/C (Being purchased good on credit)	Dr.		20,000	20,000
April 04	Rita's A/C To Sales A/C (Being amount paid to Rita)	Dr.		10,000	10,000
April 06	Rohit's A/C To Sales A/C (Being material sold on credit)	Dr.		25,000	25,000
April 08	Cash A/C To Rohit's A/C (Being the amount received from Rohit)	Dr.		20,000	20,000
April 12	Purchases A/C To Rita's A/C (Being material purchased on credit)	Dr.		12,000	12,000
April 18	Rita's A/C To Cash A/C (Goods Sold to Ashok on Credit)	Dr.		20,000	20,000
April 25	Rohit's A/C To Sales A/C	Dr.		10,000	10,000

	(Being material sold to Rohit)			
April 30	Cash A/C Dr. To Rohit's A/C (Being amount received from Rohit)		6,000	 6,000

Following are the ledgers shown in the books of Gopal

Cash Account

Date	Particulars	JF	Amount (Rs)	Date	Particulars	JF	Amount (Rs)
2024 Apr 01 Apr 08 Apr 30	 To Bank A/C To Rohit's A/C To Rohit's A/C		 50,000 20,000 6,000	2024 Apr 04 Apr 18 Apr 30	 By Rita's A/C By Rita's A/C Balance c/d		 10,000 20,000 46,000
			76,000				**76,000**
Feb 01	Balance b/d		**46,000**				

Capital Account

Date	Particulars	JF	Amount (Rs)	Date	Particulars	JF	Amount (Rs)
2024 Apr 30	 To Balance c/d		 50,000	2024 Apr 01	 By Cash A/C		 50,000
			50,000				**50,000**
				May 01	By Balance b/d		**50,000**

Purchases Account

Date	Particulars	JF	Amount (Rs)	Date	Particulars	JF	Amount (Rs)
2024 Apr 03 Apr 12	 To Rita A/C To Rota A/C		 20,000 12,000	2024 Apr 30	 By Balance c/d		 32,000
			32,000				**32,000**
Feb 01	Balance b/d		**32,000**				

Rita's Account

Date	Particulars	JF	Amount (Rs)	Date	Particulars	JF	Amount (Rs)
2024 Apr 04 Apr 18 Apr 30	 To Cash A/C To Cash A/C To Balance c/d		 10,000 20,000 2,000	2024 Apr 03 Apr 12	 By Purchases A/C By Purchases A/C		 20,000 12,000
			32,000				**32,000**
				May 01	Balance b/d		**2,000**

Rohit's Account

Date	Particulars	JF	Amount (Rs)	Date	Particulars	JF	Amount (Rs)
2024 Apr 06 Apr 25	To Sales A/C To Sales A/C		25,000 10,000	2024 Apr 08 Apr 30 Apr 30	By Cash A/C By Cash A/C By Balance c/d		20,000 6,000 9,000
			35,000				**35,000**
May 01	Balance b/d		**9,000**				

Sales Account

Date	Particulars	JF	Amount (Rs)	Date	Particulars	JF	Amount (Rs)
2024 Apr 30	To Balance c/d		35,000	2024 Apr 06 Apr 25	By Rohit's A/C By Rohit's A/C		25,000 10,000
			32,000				**35,000**
				May 01	Balance b/d		**35,000**

Illustration 3 :
Enter the following transactions in Subrahmanyam a/c and post them into ledger:
2024.July 1st Sold goods to Subrahmanyam Rs.10,000
July 3rd Purchased goods from Subramanyam Rs.14,000
July 10 th Paid cash to Subrahmanyam Rs.Rs.12,000
July 15th Sold goods to Subrahmanyam Rs.4,000
July 20 th Received cash from Subrahmanyam Rs 24,000

Dr Subrahmanyam A/C Cr

Date	Particulars	J.F.No	Amount	Date	Particulars	J.F.No	Amount
2024 July 1st	To Sakes		10,000	July 3rd 2024	By Purchases		14,000
July 10 th	To Cash		12,000	20th July	By Cash		24,000
July 15th	To Sales		4,000				
July 31st	To Balance c/d		12,000				
			38,000				**38,000**
				1st August	By Balance b/d		12,000

2.11. SUMMARY:

In accountancy, a **journal** is the primary book of original entry where all financial transactions are recorded in chronological order using the double-entry system. Each entry includes the date, accounts affected, debit and credit amounts, and a brief description. After recording in the journal, transactions are posted to the **ledger**, which is a classified record of accounts. The **ledger** organizes transactions by account (e.g., cash, sales, expenses) to track balances and facilitate financial reporting. This process ensures accuracy and helps in preparing financial statements like the trial balance and income statement.

2.12. TECHNICAL TERMS USED:

1. **Journal –** The primary book where all financial transactions are initially recorded in chronological order.
2. **Ledger –** A classified record where journal entries are posted to specific accounts to track balances.
3. **Double-entry system –** An accounting method where each transaction affects at least two accounts, maintaining the accounting equation (debits equal credits).
4. **Transactions –** Financial events such as sales, purchases, and expenses that are recorded in accounting books.
5. **Posting –** The process of transferring journal entries to their respective ledger accounts.
6. **Trial balance –** A summary of all ledger account balances used to check the accuracy of recorded transactions.
7. **Financial statements –** Reports like the income statement and balance sheet, prepared using ledger data for financial analysis.

2.13 SELF-EXPLANATORY QUESTIONS:

Short answer questions:

1. What is a ledger?
2. What is balance?
3. Write a note on ledger posting with an example?
4. Write the procedure followed for balancing an account with an example?
5. Give form of the ledger Account.

Essay Questions:

1. ABC Ltd. records the following transactions for the year ending on March 31, 2023:
1. Plant purchased for Rs. 34,000/- through cheque on April 1, 2022.
2. Good sold for cash amounted Rs. 3,900/- on August 18, 2022.
3. Goods sold to MNP Ltd. on credit for Rs. 7,200/- on January 20, 2023.
4. Depreciation charged on Plant Rs. 3,400/- on March 31, 2023.

2. On 1st April 2022, Gopal started business with a capital of Rs.50,000/-. He made the following transactions during the month of April

Date	Particulars	Amount (Rs)
2022 April 03	Purchased goods from Rita	20,000

April 04	Cash paid to Rita	10,000
April 06	Goods sold to Rohit, Chandigarh	25,000
April 08	Received cash from Rohit	20,000
April 12	Goods purchased from Rita	12,000
April 18	Cash paid to Rita	20,000
April 25	Goods sold to Rohit, Chandigarh	10,000
April 30	Received cash from Rohit	6,000

You are required to journalise the above transactions and show the respective Ledge accounts

3. On 1st April, 2019, Mohit, Delhi started business with a capital of ₹ 50,000. He made the following

transactions during the month of April:

2019 April 3 Purchased goods from Rita, Delhi on credit for 20,000
April 4 Cash paid to Rita 10,000
April 6 Goods sold to Rohit, Chandigarh 25,000
April 8 Received cash from Rohit 20,000
April 12 Goods purchased from Rita 12,000
April18 Cash paid to Rita 20,000
April25 Goods sold to Rohit, Chandigarh 10,000
April 30 Received cash from Rohit 6,000
You are required to journalise the above transactions and show the respective Ledger accounts.

4. Suresh, Kanpur commenced business on 1st January, 2019 introducing capital in cash ₹ 1,00,000.

His other transactions during the month were as follows:
2019 ₹Jan 1 Started business with cash 1,00,000
Jan 2 Bought goods for cash 20,000
Jan 3 Sold goods for cash 7,000
Jan 15 Sold goods to Shravan, Delhi 6,000
Jan 18 Bought goods on credit from Anurag, Kanpur 50,000
Jan 19 Goods returned to Anurag 5,000
Jan 20 Sold goods for cash 30,000
Jan 22 Paid electricity bill 1,000
Jan 28 Paid for telephone bill 500
Jan 29 Paid rent 800
Jan 31 Paid wages 3000
Enter the above transactions in his books of account.

5. Journalise the following transactions in the Journal of M/s. Gupta Brothers (Prop. Shri R. K. Gupta),

Delhi and post them to the Ledger:
2019 March 1 Started business with cash 2,00,000
March 2 Opened bank account with SBI 80,000
March 4 Goods purchased from Raj, Jaipur (Rajasthan) 22,000

March 5 Goods purchased for cash 30,000
March 8 Goods sold to Naman, Delhi 12,000
March 10 Cash paid to Raj 22,000
March 15 Cash received from Naman 11,700
Discount allowed 300
March 16 Paid wages 200
March 18 Furniture purchased for office use 5,000
March 20 Withdrawn from bank for personal use 4,000
March 22 Issued cheque for rent 3,000
March 23 Goods taken for household purpose. These goods were purchased from Raj 2,000
March 24 Drawn cash from bank for office use 6,000
March 26 Commission received 1,000
March 27 Bank charges 300
March 28 Cheque issued for life insurance premium of Proprietor 3,000
March 29 Paid salary 10,000
March 30 Cash sales 20,00

2.14. SUGGESTED READINGS:

- Financial Accountancy: Shukla Grewal
- Financial Accountancy: Jain and Narang
- Financial Accountancy: R.L. Gupta & V.K. Gupta

Dr.K. Lalitha

LESSON- 3
SUBSIDIARY BOOKS

OBJECTIVES:

After completion of the lesson student is able to
1. Learn the purpose and importance of subsidiary books in accounting.
2. Identify and explain different types, such as Purchase, Sales, and Cash Book.
3. Learn how to record transactions accurately in respective subsidiary books.
4. Understand how they help in reducing errors and improving efficiency.
5. Develop the ability to post entries from subsidiary books to the ledger.

STRUCTURE:

3.1. INTRODUCTION:

In accounting, subsidiary books are specialized journals used to record specific types of financial transactions systematically. Instead of recording every transaction directly in the general ledger, businesses use these books to streamline accounting processes, reduce errors, and maintain organized records. Subsidiary books help in categorizing transactions such as purchases, sales, cash payments, and receipts, making it easier to track financial activities efficiently.

Subsidiary books are particularly useful for organizations that handle a large volume of transactions, as they help streamline bookkeeping by categorizing entries systematically. By dividing transactions into specific books, businesses can assign responsibilities to different accountants or departments, ensuring accuracy and accountability. Additionally, these books serve as a reference for auditing and financial analysis, making it easier to track expenses, revenues, and outstanding payments. Proper maintenance of subsidiary books not only simplifies the preparation of financial statements but also aids in better decision-making and overall financial control.

3.2 MEANING AND ADVANTAGES:

- Subsidiary Books are the books that record the transactions which are similar in nature in an orderly manner.
- They are also known as special journals or Daybooks.
- In big business institutions, it is not easy to record all the transactions in one journal and post them into various accounts.
- So, for the easy and accurate recording of all the transactions, the journal is subdivided into many subsidiary books.
- For every type of transaction, there is a separate book.

Advantages:

i. **Saving Labour Hours:** Recording in a subsidiary book saves a lot of time and clerical hours. Firstly there is no need to journalize and/or give narrations for every transaction. This helps reduce the time it takes to completely record a transaction

ii. **Division of Work:** In place of one general journal, we have several subsidiary books, So the resulting work may be divided among several members of the staff. This will save time, improve efficiency and result in fewer errors as well.

iii. **Specialization of Work:** If one person maintains the same subsidiary book over many years he acquires full knowledge and understanding of the work. We can say he becomes a specialist in one type of transaction (say purchases for example).

iv. **Easy for Reference:** When transactions of all types are in the same subsidiary book it becomes easy to search for them. Whenever any information is needed we directly refer the subsidiary book to get said information**.**

v. **Easier for Checking:** If the Trial Balance does not match, it will be much easier to locate the error thanks to the existence of separate books i.e. a subsidiary book. Same goes if you want to detect fraud.

3.3 CLASSIFICATION OF SUBSIDIARY BOOKS:

The subsidiary books are of various types which suit the needs of an organization. The types are as follows:

- Cash book
- Purchases book
- Sales book
- Purchases return or return outwards book
- Sales return or return inwards book
- Bills receivable book
- Bills payable book
- Journal proper

3.4. PURCHASES BOOK:

Purchase Book (Journal) is a book of original entry. It records transactions related to the Credi purchase of items that a firm deals with for its business. The cash purchase get recorded in the cash book. The Credit purchase for items that the firm will not resell don't get recorded in the Purchase Book. For Example, if a firm deals in spare parts for vehicles, it will only record the credit purchases of unrelated items like furniture in the book. Those items will get recoded in the main journal or 'Journal Proper'

Format of Purchase Book

Purchase Book				
Date	**Particulars**	**Inward Invoice No**	**L.F**	**Amount**

Record the following transactions in the purchases book of Shanti Furnitue Mart

2017 March1	Purchased from Mohan Furniture Mart, Madurai 20 Chars @ Rs.450/- each 2 Tables @ Rs.1,000/- each Less: Trade Discount 10%
March 7	Bought from Ramesh & Co, Roya pettah 2 Stools @ Rs.500/- each 10 Rolling Chairs @ 200/ each Delivery charges and cartage Rs.150
March 21	Purchased from Jemini & Sons, Chennai 2 Type Writers @ Rs.7,750/- for office use

Solution :

In the Books of Shanti Furniture Mart Purchases Book – Purchase Journal

Date	**Particulars**	**Invoice No**	**LF NO**	**Amount**	
				Rs	**Rs**
2017 March 1	Mohan Furniture Mart, Madurai 20 Chars @ Rs.450/- each 2 Tables @ Rs.1,000/- each			9,000 2,000	
	Less: Trade Discount @ 10%			11,000 1,100	9,900
	Ramesh & Co, Roya pettah 2 Stools @ Rs.500/- each 10 Rolling Chairs @ 200/ each			1,000 2,000	
	Add: Delivery charges and cartage			3,000 150	3,150
	Jemini & Sons, Chennai 2 Type Writers @ Rs.7,750/- for office use			7,750	7,750
	Total				7,900

Illustration 2

From the following transactions of Ram Home Appliances for July 2017 Purchases Book and Ledge Accounts connected with this book.

2017 July 5	Purchased on credit from Kannan & Co 50 Iron Boxes @ Rs.500/- Each 10 Grinders @ Rs.3000/- each
July 6	Purchased for cash from Siva & Brothers 25 Fans @ Rs.1,250/- each
July 10	Purchased from Balan & Co on credit 20 Grinders @ Rs.2,500/-each 10 Mixes @ Rs.3,000/- each Trade Discount 10% Delivery Charges Rs.1,000
July 20	Purchased on Credit one copier machine from Kumar for Rs.35,000/-

Solution:

In the Books of Ram Home Appliances
Purchases Book

Date	Particulars	Invoice No	L.F	Amount	
				Details	Total
2017 July 5	**Kannan & Co** 50 Iron Boxes @ Rs.500/- Each 10 Grinders @ Rs.3000/- each			25,000 30,000	55,000
July 10	**Balan & Co** 20 Grinders @ Rs.2,500/-each 10 Mixies @ Rs.3,000/- each			50,000 30,000	
	Less: Trade Discount 10%			80,000 8,000	
	Add: Delivery charges			72,000 1,000	73,000
	Purchases A/C				**1,28,000**

3.5. SALES BOOK:

Sales book is a subsidiary book maintained to record credit sale of goods. Goods mean the items in which the business is dealing. These are meant for regular sale. Cash sale of goods and sale of property and assets whether for cash or on credit are not recorded in the sales book. This book is also named as sales day book, sold day book, sales journal or sale register.

Format:

Sales Book

Date	Particulars	L.F	Invoice No	Amount (Rs)	
				Details	Total
Date of Sale	Name of the customers and details of Goods sold	Posting Reference		Detailed Calculation	Net Amount of the Invoice
	Sales A/C Cr				

Illustration3:

Enter the following transactions in Sales day book

On 5th March 2025, Sharma Garments bought 50 cotton shirts on credit at ₹500 each. The total is ₹25,000

On 7th March 2025, Verma Textiles purchased 30 silk sarees at ₹2,000 each. The total is ₹60,000,

On 10th March 2025, Gupta Fashion House bought 40 denim jeans at ₹800 each. The total is ₹32,000,

Format of a Sales Book

Date	Invoice No.	Customer Name	Description of Goods	Qty	Rate (₹)	Total Amount (₹)
05-03-2025	201	Sharma Garments	Cotton Shirts	50	500	25,000
07-03-2025	202	Verma Textiles	Silk Sarees	30	2,000	60,000
10-03-2025	203	Gupta Fashion House	Denim Jeans	40	800	32,000
			Total			1,17,000

Illustration:4

From the transactions given below, prepare the sale book of Kumar Stationary for July 2017

2017 July 5	Sold on credit to Sravan Traders of Sayalkudi 10 Packs of A4 Sheets @ Rs.250 per pack 10 dozens of writing pads @ 850 per Dozen Less: 10% Trade Discount for both
July 8	Sold to Raja for Cash 15 Packs of A4 Sheets @ 250 per pack
July 20	Sold to Mohan & Co Mudukulathur 5 White Boards @ 2,200 Each 10 dozens of writing pads @ 850 per Dozen
July 23	Sold on credit to Narayanan Old Motor Car for Rs.5,000/-
July 28	Sold to Kumaran for Cash 15packets of marker pens @ 250/- per packet

Solution:

In the Books of Kumar Stationary
Sales Book

Date	Particulars	Invoice No	L.F	Amount (Rs)	
				Details	Total
2017 July 05	**Sravan Traders of Sayalkudi** 10 Packs of A4 Sheets @ Rs.250 per pack 10 dozzens of writing pasds @ 850 per Dozzen			2,500 8,500	
	Less: 10% Trade Discount			11,000 1,100	9,900
July 20	**Mohan & Co Mudukulathur** 5 White Boards @ 2,200 Each 10 dozzens of writing pasds @ 850 per Dozzen			11,000 8,500	19,500
	Sales A/C				**29,400**

3.6. PURCHASE RETURNS BOOK:

When the goods purchased on credit are returned to the supplier, the entries for such transactions are recorded in the Purchase return book or the purchase returns day book. Goods purchased are sometimes returned by the buyer on account of a defect or low quality.

A separate subsidiary book is maintained for these purchase returns since these returns are not deducted from the purchases in the Purchase book. The entry for a purchase return transaction is done for the net amount on the invoice. A debit note in duplicate is prepared for every return of goods. The original one is sent to the supplier while the duplicate copy is kept by the organization for its records.

The Debit note includes the date, serial number, name of the supplier, details of goods returned, and the reason for the return of the goods. The supplier can also prepare a Credit note and send it to the customer when the goods are received from the customer.

Performa of the Purchase Return Book
Format:

Purchase Reruns Book

Date	Particulars	L.F	Debit Note No	Amount (Rs)	
				Details	Total
Date of Sale	Name of the persons to whom Goods are returned and the details of the goods returned	Posting Reference		Detailed Calculation	
	Purchase Returns A/C Cr				

Illustration : 5:
Enter the following transactions in the purchases returns book of Hari who is dealing in automobiles and post then into the ledger.

2017 Jan 05	Returned to Anand 5 Clutch plates @ Rs.200 each, not in accordance with the order
Jan 14	Returned to Chandran 4 Brake Shoes @ 200 each and 10 rear view mirrors @ Rs.350/- each, due to inferior quality

Solution:

In the Books of Hari
Purchase Returns Book

Date	Particulars	Debit Note No	L.F	Amount (Rs)		Remarks
				Details	Total	
2017 Jan 05	**Anand** 5 Clutch Plates @ Rs.200/- each			1,000		Not in accordance with order
Jan 14	**Chandran** 4 Brake Shoes @ 200 each 10 rear view mirrors @ Rs.350/- each			800 3,500	4,300	due to inferior quality
	Purchase Returns A/C				**5,300**	

3.7. SALES RETURNS BOOK:

Sometimes, goods sold can be defective or of low quality, etc. and hence, the customer may return them. Thus, goods sold that are returned by the customer or buyer, are recorded in the Sales Return Book. It is noteworthy that the return of only those goods is entered in these books that were earlier sold on credit.

A Credit Note is prepared for every return of goods. It is prepared in duplicate. The Credit Note contains the name of the customer, details of goods returned and reason thereof. Each Credit Note is dated and serially numbered. The Credit Note serves as the source document for entries in the Sales Return Book.

The customer to whom the goods were sold may also prepare a Debit Note. It is prepared when goods are returned to the seller and is therefore sent to him. Given below is the Performa of the Sales Return Book:

Sales Return Book

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

Illustration: 6
Record the following transactions in the books of M/s. Z and Co. and also show the ledger accounts.

Date	Details
5 Aug	Goods returned by M Ltd. (Credit Note No. 2): 2 bags @ ₹ 500 per piece.
11 Aug	Goods returned by D Ltd. (Credit Note No. 3): 10 suitcases @ ₹ 2500 per piece. Trade discount 20%
28 Aug	Goods returned by X Ltd. (Credit Note No. 5): 5 duffle bags for ₹5000. Trade discount 10%

Sales Return Book

Date	Credit Note No.	Name of the Customer	L.F.	Amount
5 Aug	2	M Ltd.		1000
		2 bags @ ₹ 500 per piece.		
11 Aug	3	D Ltd.		20000
		10 suitcases @₹ 2500 per piece = 25000		
		Less: 20% T.D. = 5000		
28 Aug	5	X Ltd.		4500
		5 duffle bags @ ₹1000 per piece = 5000		
		Less: 10% T.D. = 500		
31 Aug		**Total**		**25500**

3.8. CASH BOOK:

Cash is an essential medium of conducting transactions taking place in a business and needs to be recorded for maintaining proper bookkeeping of the transactions. Cash is a current asset, and examples of cash transactions can be bank overdraft, money orders, demand deposits.

This leads to the need for maintaining all cash transactions in one place for the business and necessitates the use of a cash book.

Cash Book definition
Cash book is a special type of book that is only concerned with the recording of cash transactions of an organisation. It performs the dual role of both journal and a ledger for all the cash transactions taking place in a business organisation.

A cash book records all the cash receipts on the debit side and all the cash payments of the organisation on the credit side.

Features of Cash Book

Cash book has the following features:

1. Acts as both a journal and a ledger.
2. Can be used as an alternative to a cash account for recording transactions.
3. It follows the dual entry system of accounting (i,e. Debit and credit side in cash book).
4. The debit side should be identical to the credit side.
5. Cash book should always have a debit balance.

Types of Cash Book

There are four types of cash books used for accounting purposes. Let us have a look at the types of cash books.

1.Single column cash book
2.Double column cash book
3.Triple column cash book
4. Petty cash book

Single column cash book: Single column cash book is also called a simple cash book. It presents entries for cash received (receipts) on the left side or debit side and cash payments on the right-hand side or credit side.

The bank transactions and the discounts that are given for transactions will be featured in separate ledger accounts in case of single-column cash books.
Cash books are updated on a daily basis in some business firms. The most striking feature of a cash book is that it can never have a credit balance. It should always show a debit balance.

In the Books of____________
Cash Book

Dr **Cr**

Date	Particulars	J.F	Amount (Rs)	Date	Particulars	J.F	Amount (Rs)

Illustration 7: In the Cash Book of M/s Paramjeet Enterprises for the month of June 2022, record the following transactions:

Date	Particulars
June 01	Cash in hand – Rs.45,000
June 05	Commission received in cash for Rs.8,000 with CGST and SGST @ 6% each
June 10	Rent paid for Rs.7,000 with CGST and SGST @ 6% each
June 13	Goods sold for cash for Rs.13,000 plus CGST and SGST @ 6% each
June 21	Goods purchased for cash for Rs.9,000 plus CGST and SGST @ 6% each
June 30	Salaries paid Rs.7,000/-

In the Books of M/S Paramjeet Enterprises
Cash Book

Dr **Cr**

Date	Particulars	J.F	Amount (Rs)	Date	Particulars	J.F	Amount (Rs)
June 01	To Balance b/d		45,000	June 10	By Rent A/C		7,000
June 05	To Commission A/c		8,000	June 10	By Input CGST A/c		420
June 05	To Output CGST A/c		480	June 10	By Input SGST A/c		420
June 05	To Output SGST A/c		480	June 21	By Purchases A/c		9,000
June 13	Sales A/c		13,000	June 21	By Input CGST A/c		540
June 13	To Output CGST A/c		780	June 21	By Input SGST A/c		540
June 13	To Output CGST A/c		780	June 30	By Salaries A/c		7,000
				June 30	By Balance c/d		43,600
			68,520				**68,520**
July 01	To balance b/d		43,600				

2. Double Column or Two column Cash Book:

For a Double Column or Two Column Cash Book, there are two columns to record amount on **Double Column cash book**: In a double column cash book, there is an additional column that is reserved for the discounts. Therefore, in a double-column cash book, also known as two-column cash book, the cash receipts and transactions are recorded in one column while the second column records discounts received and discounts provided.

Discount being a nominal account the discount provided is placed on the debit side of the cash book while discount received is placed on the credit side of the cash book.

At the end of the accounting period, both the columns are balanced, and the closing balances are transferred appropriately.

Cash Book with Cash and Discount Columns

Dr **Cr**

Date	Receipts	R.N	J.F	Amount (Rs)		Date	Payments	R.N	J.F	Amount (Rs)	
				Disc	Cash					Disc.	Cash

Illustration: 8: In the Cash Book of M/s Kiran Traders for the month of March 2022, record the following transactions: Enter the following transactions in a cash book with cash and discount columns

Date	Particulars	Amount (Rs)
2017 Jan 01	Cash in Hand	11,500
Jan 05	Paid to Ramanathan by depositing in cash deposit machine Discount allowed by him	300 10
Jan 08	Purchased goods for cash	400
Jan 10	Cash received from Rajagopal Discount allowed	980 20
Jan 15	Sold Goods for cash	400
Jan 21	Pais cash to Shanthi Discount received	295 5
Jan 25	Paid wages by cash	50
Jan 31	Paid to Sanjeev Rs.390 in full settlement of his account	400

Cash Book with Cash and Discount Column

Dr **Cr**

Date	Particulars	L.F	Amount (Rs)		Date	Particulars	L.F	Amount (Rs)	
			Disc.	Cash				Disc.	Cash
2017 Jan 01	To Balance b/d			11,500	2017 Jan 05	By Ramanathan A/c		10	300
Jan 10	To Rajagopal A/c		20	980	Jan 08	By Purchases A/c			400
Jan 15	To Sales A/c			400	Jan 21	By Shanti A/c		5	295
					Jan 25	By Wages A/c			50
					Jan 31	By Sanjeev A/c		10	390
					Jan 31	By Balance c/d			11,445
			20	12,800				20	12,800
July 01	To balance b/d			11,445					

3. Triple column Cash Book:

In addition to detailing cash and bank transactions, a triple-column or three-column cash book shows additional information about sale and purchase discounts. It is mostly used by firms that avail of massive cash discounts.

The discounts received from suppliers are entered on the credit side, and discounts offered to end customers are stated on the debit side. A triple-column cash book format can look like this:

The format of the Triple Column Cash Book

Dr. **Cash Book** Cr.

Receipts							**Payments**						
Date	**Particulars**	**V. No**	**L.F**	**Disc. All.**	**Cash Rs.**	**Bank Rs.**	**Date**	**Particulars**	**V. No**	**L.F**	**Disc. All.**	**Cash Rs.**	**Bank Rs.**

Contra Entry:
If an entry is made on the debit side and the same entry is recorded on the credit side of the cash book, it is called a contra entry.

To differentiate contra entries from other entries, letter "C" is printed in the posting reference column (on both the debit and credit sides of the cash book).

The letter "C" indicates that the contra effect of this transaction is recorded on the opposite side.

Contra entries may be one of the following types:

- **Type 1**

When cash is deposited into a bank, two entries are required: one on the credit (payment) side in the cash column, which records the reduction in cash in hand; and the other on the debit (receipt) side in the bank column, which records the increase in cash at bank.

- **Type 2**

When cash is withdrawn from a bank for office use, two entries are needed: one on the credit side in the bank column, which records the reduction of cash at bank; and the other on the debit side in the cash column, which records the increase in cash in hand.

- **Type 3**

It has already been explained that when a cheque is received and not deposited into a bank on the same date, the amount will be recorded on the debit side of the cash book in the cash column.

When the same cheque is deposited into a bank account on another date, two entries are required: one on the debit side in the bank column, which records the increase in the amount at bank; and the other on the credit side in the cash column, which records the cash (cheque) paid into the bank.

Illustration: 9:

Enter the following transactions in a three column cash book.

1. 01/04/2021 Started Business with Cash Rs.50,000/- abd Bank Balance Rs.2,00,000
2. 04/04/2021 Goods purchase worth Rs.10,000/- and payment made immediatelt by Cheque and get a discount Rs.100
3. 07/04/2021 Rent paid for the building
4. 09/04/2021 Wages paid for Rs.2,500/- by cheque
5. 11/04/2021 Sold goods worth Rs.5,000/- and to receive payment immediately by cheque and allow discount Rs.100/-
6. 12/04/2021 Sold Goods for Ram & Sons Rs.4,000/-
7. 14/04/2021 Commission paid to Rohan Rs.100/-
8. 15/04/2021 Payment received from Ram & Sons Rs.3,950/- by cheque and allowed them a discount Rs.50/-
9. 16/04/2021 Labour Charges paid for Rs.250/-
10. 18/04/2021 Cash Deposit into Bank Rs.25,000/-
11. 21/04/2021 Purchased goods worth Rs.2,500/- from Ramesh
12. 23/04/2021 Payment made to Ramesh Rs.2,450/- by cheque and received the discount of Rs.50/-
13. 25/04/2021 Cash withdrawal from Bank for office use Rs.5,000/-
14. 29/04/2021 An Owner withdraw cash from the business for personal use Rs.1,000/-

Dr **Cash Book** Cr

Receipts							**Payments**						
Date	**Particulars**	**V. No**	**L.F**	**Disc. All.**	**Cash Rs.**	**Bank Rs.**	**Date**	**Particulars**	**V. No**	**L.F**	**Disc. All.**	**Cash Rs.**	**Bank Rs.**
2021							2021						
Apr 01	To Capital A/c	1			50,000	2,00,000	Apr 04	By Purchase A/c	1		100		9,900
Apr 11	To Sales A/c	2		100		4,900	Apr 07	By Rent A/c	2			1,000	
Apr 15	To Ram & Sons A/c	3		50		3,950	Apr 09	By Wages A/c	3				2,500
Apr 18	To Cash A/c	4				25,000	Apr 14	By Commission A/c	4			100	
Apr 25	To Bank A/c	5			5,000		Apr 16	By Labour Charges A/c	5			250	
							Apr 18	By Bank A/c	6			25,000	
							Apr 23	By Ramesh A/c	7		50		2,450
							Apr 25	By Cash A/c	8				5,000
							Apr 29	By Drawing A/c	9			1,000	

							Apr 30	By Balance C/d				27,650	2,14,850
	Total			**150**	**55,000**	**2,33,850**		Total			**150**	**55,000**	**2,33,850**

Solution

Dr **Cash Book** **Cr**

Receipts							**Payments**						
Date	**Particulars**	**R.N**	**L.F**	**Disc. All.**	**Cash Rs.**	**Bank Rs.**	**Date**	**Particulars**	**R.N**	**L.F**	**Disc. Rec.**	**Cash Rs.**	**Bank Rs.**
2022							2022						
Aug 01	To Capital A/c				2,00,000		Aug 02	By Bank A/c				50,000	
Aug 02	To Cash A/c					50,000	Aug 04	By Purchases A/c				5,000	
Aug 08	To Mano's A/c			10	490		Aug 05	By Purchases A/c					6,000
Aug 12	To Bank A/c				10,000		Aug 10	By Carriage A/c				1,000	
Aug 20	To Nathan's A/c			50		4,950	Aug 12	By Cash A/c					10,000
							Aug 15	By Sundari's A/c			40	4,960	
							Aug 31	By Balance C/d				1,49,530	38,950
	Total			**60**	**2,10,490**	**54,950**		Total			**40**	**2,10,490**	**54,950**
Sep 01	To Balance c/d				1,49,530	38,950							

Illustration: 10:

Compile three column cash book of Mr. Sundar from the following transactions: 2002 Aug 1 Sundar started business with cash Rs.2,00,000 2 Deposited into Bank Rs.50,000. 4 Cash purchases Rs.5,000. 5 Purchases by cheque Rs.6,000. 6 Goods sold to Nathan on credit Rs. 5,000. 8 Received cheque from Mano Rs.490, Discount allowed Rs.10. 10 Paid carriage Rs.1,000. 12 Withdrew from Bank for office use Rs.10,000. 15 Paid to Sundari Rs.4,960, Discount allowed by her Rs.40. 20 Received a cheque for Rs.4950 from Nathan in full settlement of his account, which is deposited into Bank.

Solution

Note: Transaction Dated 6th August will not appear in the cash book as it is a credit transaction

Petty Cash Book:
The petty cash book is the record of petty cash expenditures that are sorted by date. In most cases, this petty cash book is a ledger book and not a computer record. This book is a part of the manual record-keeping system in the accounting department.

There are two primary types of entries in the petty cash book Which is a debit to record the cash that is being received by the petty cash clerk, which is usually in a single block of cash at infrequent times. A large number of credits reflect the cash withdrawals from the petty cash fund, which are such transactions as payments for meals, flowers, office supplies, stamps, and henceforth. Imprest System of Petty Cash

The imprest system of petty cash means the general ledger account. Petty Cash is to remain dormant at a constant amount. Suppose, the amount of petty cash is Rs.1000, then the Petty Cash account will report a debit balance of Rs.1000. This Rs. 1000 is known as the imprest balance. If the Rs. 1000 is sufficient for the organization's small disbursements, then the general ledger account Petty Cash will never be debited or credited once more. As the currency and coins on hand decrease, then the petty cash custodian will request a check to replenish the coins and currency that were being disbursed. Since the requested check is drawn on the business's checking account. The Cash account is to be credited and the debit will go to the expense account as indicated by the petty cash receipts, like the postage and supplies expenses.

3.9 BILLS RECEIVABLE BOOK:

A bills receivable book records transactions relating to bills of exchange including recording bills that have been drawn and accepted, whereas a bills payable book records transactions relating to bills of exchange including recording bills that have been accepted

3.10. BILLS PAYABLE BOOK:

It is kept up like a bills receivable book. It is intended to record every one of the detailed elements, identifying with the bills acknowledged by an entity or a party, which are held for being utilized later on, in the event of need.

3.11. JOURNAL PROPER:

Journal Proper Meaning: Journal Proper or General Journal is a simple book of chronological records of business transactions. This book of original entry (simple Journal) in which miscellaneous credit transactions which do not fit in any other books are recorded. It is also called a miscellaneous Journal. The form and procedure for maintaining this Journal are the same as that of a simple Journal. Only those transactions, which cannot be conveniently recorded in any of the other books of original entry i.e., subsidiary books or which are not sufficiently numerous to necessitate a special book being devised for them, are recorded in this book.

The Use of Journal Proper is Confined to Record the Following
Transactions Opening entries
Closing entries
Transfer entries
Adjustment entries

Rectification entries
Entries for which there is no special
Journal Entries for rare transactions

Journal Proper Format

Date	Particulars	LF	Debit	Credit

3.12. SUMMARY:

Subsidiary books are socialized accounting books used to record specific types of transactions separately before posting them to the ledger. These books help in managing large volumes of transactions efficiently and reduce the workload on the general ledger. They also improve accuracy, minimize errors, and ensure systematic record-keeping.

The primary types of subsidiary books include the Purchases Book, which records all credit purchases of goods meant for resale, and the Sales Book, which keeps track of all credit sales. Similarly, the Purchases Returns Book and Sales Returns Book document the return of goods by the business to suppliers and by customers to the business, respectively. These books ensure that adjustments for returned goods are handled systematically.

Other important subsidiary books include the Cash Book, which records all cash transactions, both receipts and payments, and the Bills Receivable and Bills Payable Books, which track bills received and issued by the business, ensuring proper management of credit transactions. Additionally, the Journal Proper is used to record miscellaneous transactions that do not fit into the other subsidiary books.

By using subsidiary books, businesses can streamline their accounting process, maintain proper financial records, and facilitate the preparation of final accounts. They also provide a clear audit trail, making financial reporting and decision-making more effective.

3.13. TECHNICAL TERMS USED :

1. **Purchases Book –** Records all credit purchases of goods meant for resale.
2. **Sales Book –** Maintains a record of all credit sales transactions.
3. **Purchases Returns Book –** Documents goods returned to suppliers due to defects or excess supply.
4. **Sales Returns Book –** Records goods returned by customers due to quality issues or other reasons.
5. **Cash Book –** Tracks all cash receipts and payments, acting as both a subsidiary and principal book.
6. **Bills Receivable Book –** Maintains details of all promissory notes and bills received from customers.
7. **Bills Payable Book –** Keeps records of bills issued to creditors, showing obligations to pay. **Journal Proper –** Records transactions that do not fit into other subsidiary books, like opening.

3.14. SELF-EXPLANATORY QUESTIONS:

Short answer questions:

1. What is meant by Subsidiary Books?
2. Define Journal Proper
3. What is a debit note
4. What is a credit note
5. Types of Discounts

Essay Questions:

1. Name various types of subsidiary books and explain the method of recording of transactions there in along with the method of posting.
2. State the types of transactions that are recorded through the journal proper. What is journal proper? Explain its uses in accountancy
3. Enter the following transactions in three column cash book of Mr.Muthu and balance the same. 2003 Aug 1 Cash in hand Rs.75,000 Cash at bank Rs.40,000 4 Paid into bank Rs.20,000. 6 Purchased machinery by cheque Rs.10,000. 8 Received from Mohan Rs.2,560 Discount allowed Rs. 40. 10 Paid to Somu by cheque Rs.3,970 in full settlement of his account Rs.4,000. 11 Withdrew cash from Bank for personal use Rs.5,000. 15 Received cheque from Balan Rs.4,900. Allowed him discount Rs.100. 19 Balan's cheque deposited into Bank 24 Anandan our customer has paid directly into our bank account Rs.10,000. 27 Rent paid by cheque Rs.3,000.
4. Prepare three column cash book of Mrs.Eswari from the following transactions and balance the cash book on 30th June 2003. 2003 June 1 Cash in hand Rs.50,000 Bank overdraft Rs.15,000 3 Paid into bank Rs.25,000 5 Parthiban settled his account for Rs.3,750 by giving a cheque for Rs.3,690. 8 Parthiban's cheque sent to bank for collection. 10 Cash withdrawn from bank Rs.8,000. 14 Parthiban's cheque returned dishonoured 15 Received from Ramesh a currency note for Rs.5,000 and gave him a change for it. 18 Paid rent Rs.500. 20 Bank charges as per pass book Rs.150. 30 Deposited into Bank all cash in excess of Rs.5,000.
5. Enter the following transactions in three column cash book of Mrs.Anu Radha. 2002 Sep 1 Cash in hand Rs.50,000 Bank balance Rs.15,000 2 Sold goods to Udayakumar for Rs.15,000, cash discount allowed 1% and received cash for the balance. 3 Tax paid Rs.1,000. 7 Bought goods from Munuswamy for Rs.2,400, cash discount received 2% and paid cheque for the balance. 9 Received repayment of loan from Elangovan Rs.10,000. 12 Paid into Bank Rs.5,000. 14 Paid Rs.1,400 to Aravind & Co., half by cash and half by cheque. 16 Dividend collected by the Bank as per pass book Rs.2,000. 18 Sold goods for cash and deposited into the bank on the same day Rs.5,000. 20 Sent to Bharathi by money order Rs.460, the money order commission being Rs.20.
6. From the following information show how Mr.Venu Gopal's triple column cash book would appear for the week ended 7th October 2002 and close the cash book for the day. 2002 Oct 1 Cash in hand Rs.30,000 Bank balance Rs.1,000 2 Sivan, our customer has paid directly into our bank account Rs.5,000. 3 Paid rent by cheque Rs.500. 4 Cheque issued in favour of Bharathi for purchase of furniture Rs.2,400. 5 Received from Vinoth Rs.2,225 Discount allowed Rs.75. 6 Paid into bank Rs.4,000 7 Cash withdrawn from bank Rs.2,000. Bharathi, to whom we have issued a cheque of Rs.2,400 has reported that our cheque is dishonoured.
7. Record the following transactions in the purchases journal of M/s Soni & co and show the ledger posting. 2007 Jan 2 Jan 3 Jan 4 Purchased goods from Chinku Brought goods from Reni Purchased from Santi R s . 4,000 5,400 3,500 Jan 5 Brought goods from

chinku with trade discount of 10% 2,000 Jan 6 Purchased from Sai goods subject to a discount of 20% 5,000 Jan 7 Venugopal sold us goods 1,800

8. Enter the following transactions in the sales Book of Yashodhara. Traders. 2007 Apr 1 Sold 200 quintals of super fine rice @ Rs 1700 per quintal to A.P.Rice dealers with 10% discount. Apr 3 Sold 500 quintals of Coarse rice @ Rs 1500 per quintal to super price shop at a discount of 5% Apr 5 Sold 750 quintals of fine rice at the rate of 1600 per quintal to Gayatri Rice store at 7.5% discount
9. Subsidiary Books Enter the following transactions in the proper books. 2007 Apr 1 Apr 5 Apr 10 Apr 15 Apr 20 Apr 25 Apr 30 5. Purchased on credit from Bombay dying 1000 meters of shifting cloth @ 125 per metre. 1000 meters of pant cloth @ 250 per metre. Purchased on credit from DCM Ltd. . 5000 meters of curtain cloth @ Rs 100 per metre. Purchased on credit from Vimal textiles 1000 sarees @ Rs 500 per sarees 2,500 Meters of dressing material @ Rs 125/- Per metre. Purchase on credit from Garden vareli 500 sarees @ Rs 350/- each 3000 Meters of dressing material @ Rs 100 per metre Purchased for cash from NTC 1500 metres of linen @ Rs 10 per metre. Purchased furniture for office use Rs 1000. Sold old type writer for Rs 750

3.15. SUGGESTED READINGS:

1. Financial Accountancy Shukla Grewal
2. Financial Accountancy Jain and Narang
3. Subsidiary Books R.L. Gupta & V.K. Gupta

Dr.K. Lalitha

LESSON -4
INCOME STATEMENT AND BALANCE SHEET

OBJECTIVES:

- The purpose of this lesson is to introduce the Income Statement and to define revenue and expenses.
- The relationship between revenue and expenses and their affect on the Income Statement will be explained.
- Classify the financial statements into Trading Account, Profit and Loss Account and Balance Sheet .
- Prepare Trading Account, Profit and Loss Account and Balance Sheet.

STRUCTURE:

4.1 Introduction.

4.2 Income and Expenditure.

4.3 Trading Account.

4.4 Profit and Loss account.

4.5 Balance Sheet.

4. 6 Final Accounts with Adjustments.

4.7 Self Assessment Questions

4.8 References

4.1 INTRODUCTION:

According to double entry system of book keeping for every debit there must be a credit. As such all the debit balances should be equal to credit balances. A statement of debits and credits will be prepared by the accountant. This statement is known as Trial Balance.

Proforma of Trial balance

S.No	Particulars	Debit- Rs.	Credit – Rs.
1.	All Assets	Xxx	-----
2.	All Liabilities	-------	xxx
3.	All Expenses	Xxx	-----
4.	All Incomes	------	xxx
	Total	Xxx	xxx

When ledger accounts are balanced some accounts will show debit balances and some other accounts will show credit balances. All assets and all expenses have debit balance which should be shown in Trial balance in debit column side, all liabilities and all incomes have credit balance which should be shown in Trial balance in credit column side.

Trial Balance is first step towards preparation of final accounts – Trading account, Profit and Loss account and Balance Sheet. Trading and Profit & Loss Account are prepared in order to determine the income earned or loss incurred during the accounting period. Balance sheet indicates the financial position of the enterprise.

4.2 INCOME AND EXPENDITURE:

Incomes are of two types, Capital receipts and revenue receipts. The capital receipts will be shown in the Balance Sheet whereas revenue receipts will be shown in the Profit and Loss Account. Money received on sale of goods , money received in the form of interest etc., are all of revenue nature so it is revenue receipt. Revenue means recur in nature where Capital receipt is non recurring nature. Amount received from the proprietor is of a capital nature and should be shown as capital in the liabilities side of the Balance Sheet.

Expenditure may be Capital expenditure when there is an acquisition of fixed assets. If an expenditure is results in a benefit which will last for a long time. Ex: Plant purchased, acquisition of patents, copyrights or trade marks.

Expenditure will be treated as revenue expenditure when the benefit will expire within the year. Ex: rent paid, salaries paid, wages paid , etc., All revenue expenditure are to be debited to profit and loss account and all capital expenditures are to be taken to balance sheet.

Deferred Revenue Expenditure: The heavy expenditure of revenue whose benefit will be available for more than one year cannot be fairly treated as revenue expenditure. The whole of such expenditure cannot be debited to profit and loss account only in one year. Such expenditure is classified as deferred revenue expenditure. Ex:- Preliminary expenses, research and development expenses etc.,

4.3 TRADING ACCOUNT:

Trading account is prepared to ascertain gross profit and gross loss as a result of buying and selling of goods and to enable management to make a comparison of gross profit or gross loss of the current year. Debit side of the Trading account will be Opening stock, Purchases, Purchase returns should be deducted from purchases, carriage inward or freight inwards, Import duty, Manufacturing expenses, Factory expenses, Fuel and power and all direct expenditure.

Credit side of the Trading Account will be Sales, deduct sales returns from sales, Closing stock. Closing stock usually does not appear in the trial balance. Closing stock is valued at the cost price or the market price, whichever is lower. Closing stock of the current year will be the Opening stock for the next year, it will be shown after the Trial balance as adjustment. Credit balance in the trading account shows the Gross Profit and debit balance is Gross Loss. The Gross profit or the Gross Loss of the Trading account is transferred to Profit and Loss account.

<u>Proforma of Trading account</u>

Dr. Cr.

Particulars	Amount	Particulars	Amount
To Opening stock	Xx	By Sales	
To Purchases xx		xx	Xx
Less-Purchase returns <u>xx</u>	Xx	(-) Sales returns <u>xx</u>	Xx
To Wages	Xx	BY Closing Stock	

To Manufacturing expenses To carriage inwards To Gross profit	Xx Xx		
	Xxx		Xxx

Example 1: From the following balances extracted from the books of M/s Luthur & Sons, Prepare a Trading Account for the year ended 31st March, 2023.

Opening stock Rs. 8,500/-
Purchases Rs 55,000/-
Sales Rs 82,000 /-
Purchases Returns Rs 500
Sales Returns Rs 1,500
Carriage Rs 1,200/-
Wages Rs 5,800/-
Fuel & Power Rs 5,200 /-
Closing stock Rs 18,000/-

Solution:-

Trading account

Particulars	Amount	Particulars	Amount
To Opening stock To Purchases 55000 Less-PR 500 To Wages To Fuel & Power To carriage **To Gross profit**	8500 54500 5800 5200 1200 **23300**	By Sales 82000 (-) Sales returns 1500 BY Closing Stpck	 80500 18000
	98500		98500

Example 2:-

From the following balances extracted from the books of M/s Bhavana Bros, Prepare a Trading Account for the year ended 31st March, 2023.

Opening Stock Rs 42,000 /-
PurchasesRs 1,85,000/-
Wages Rs 4,000 /-
PowerRs 6,500 /-
Custom Duty Rs 8,500 /-
Sales Rs 1,00,000 /-
Closing Stock as on 31st March, 2023 is Rs 30,000/-.

Solution:-

Trading account

Particulars	Amount	Particulars	Amount
To Opening stock	42000	By Sales	200000
To Purchases	185000	By Closing Stock	30000
To Wages	4000		
To Power	6500		
To Customs duty	8500		
		By Gross Loss	**16000**
	246000		246000

4.4 PROFIT AND LOSS ACCOUNT:

The object of preparing Profit and Loss account are to provide information about net profit and to compare current year's income with that of previous year's. Net profit represents the excess of gross profit plus other revenue incomes over sales expenses including sales costs and other expenses. Any expenses relating to owner or personal expenses are transferred to the Drawings account of owner.Profit and Loss Account is prepared to find out the net profit / net loss of the business during an accounting year. This account is also prepared in T-form.

Following is the proforma of a Profit and loss Account

Profit and loss account

Particulars	Amount	Particulars	Amount
To Salaries	Xx	By Gross profit	Xx
To Rent	Xx	By Commission received	Xx
To Carriage outwards	Xx	By Interest on drawings	Xx
To Office expenses	Xx	By Discount on creditors	Xx
To Depreciation	Xx		
To Interest	Xx		
To Baddebts	Xx		
To Reserve for baddebts	Xx	By Net Loss	Xx
To Discount on Debtors	Xx		
To Net Profit			
	Xxx		Xxx

Example 3:-

From the following information, prepare Profit and loss Account of M/s Saahoo Bros. for the Year ending on 31.03.2023.

Gross Profit Rs 87,000 /-

Discount allowed to customers Rs 2,500/-

Printing and stationery Rs 2,500 /-

Office rent Rs 6,000/-

RepairRs 2,400/-

Insurance PremiumRs 6,100/-
Telephone Charges Rs 2,000/-
Discount received from CreditorsRs 5,000/-
Interest earned during the yearRs 8,000/-

Profit and loss account

Particulars	Amount	Particulars	Amount
To Printing &stationary	2500	By Gross profit	87000
To Office Rent	6000	By Interest earned	8000
To Repair	2400	By Discount on creditors	5000
To Insurance premium	6100		
To Telephone charges	2000		
To Discount allowed	2500		
To **Net Profit**	**78500**		
	100000		100000

4.5 BALANCE SHEET:

The balance sheet summarises and reveals the financial position of an enterprises on a particular date, by showing what it owns and what it owes. Balance sheet has no debit and credit side. Balance sheet is prepared at the end of the financial year or calendar year or after twelve months duration. Balance sheet shows the assets and liabilities of the enterprise. Balance sheet is not an account it is a sheet containing balances of ledger accounts which have not been closed by transfer to trading and profit and loss account. The Balance sheet is also called a statement of sources of funds and utilization of funds.

Accounting Equation :-- ASSETS = LIABILITIES +OWNERS EQUITY
Classification of Assets:

i) Tangible assets: These assets are physically appearing and we can see those assets example : Building, Furniture, Plant etc.
   a) Fixed assets: They are used over and again. It has depreciation.
   b) Current assets: These assets can be converted into cash within one year.
   Examples: Inventory, Debtors, Cash, bills receivable etc.,

ii) Intangible and Fictitious Assets: Intangible assets does not have physical appearance, Example : Patents, copy rights, Good will , Preliminary expenses etc.

Classification of Liabilities:

i) Long term liabilities: They are to be redeemed after long period of time. Example: Term loan- Loan taken for longer period, Capital etc.,
ii) Current Liabilities:- These liabilities are paid within one year. Example : Creditors, Bank overdraft, Bills payable etc.
iii) Contingent Liabilities:- Future liability on condition that the contemplated event occurs. This is not shown in Balance sheet. Example: Liability in respect of pending suit.

PROFORMA OF BALANCE SHEET

LIABILITIES	AMOUNT	ASSETS	AMOUNT
Current liabilities:		**Current assets**:	
Creditors	Xxx	Cash	Xxx
Bank overdraft	Xxx	Debtors	Xxx
Outstanding expenses	Xxx	Stock	Xxx
		Bills receivable	Xxx
Long term liabilities	Xxx	Prepaid expenses	Xxx
Debentures	Xxx		
Capital xxx		**Fixed assets**:	
+ Net profit xxx		Land and building	Xxx
-Drawings xxx		Plant and Machinery	Xxx
-Interest on drawings xxx	Xxx	Furniture	Xxx
		Investments	Xxx
		Goodwill	Xxx
		Patents	Xxx
	Xxx		Xxx

Example : 4

From the following information supplied by Mr. Rajesh Lal, prepare a Balance Sheet of Mr. Rajesh Lal as on 31st March, 2024 ` Capital Rs 60,000/-
Furniture Rs 15,000/-
Debtors Rs 25,000/-
Creditors Rs 30,000/-
Plant and Machinery Rs 48,000/-
InvestmentsRs 5,000 /-
Cash in hand Rs 1,000/-
Cash at Bank Rs 1,000 /-
Stock at the endRs 10,000/-
Bank OverdraftRs 8,000 /-
Bank Loan 20,000/-,Net Profit Rs 10,000 /-, Drawings Rs 3,000/-

Solution:Balance Sheet

Liabilities	Amount	Assets	Amount
Current liabilities:		Current assets:	
Creditors	30000	Cash in hand	1000
Bank Overdraft	8000	Cash at bank	1000
Bank loan	20000	Stock	10000
		Debtors	25000
Capital 60000			
+Netprofit10000		Fixed assets:	
50000		Furniture	15000
- Drawings 3000		Plant and furniture	48000
	47000	Investments	5000
	105000		105000

4. 6 FINAL ACCOUNTS WITH ADJUSTMENTS:

While preparing the final accounts sometimes the trader may come across some problems. Some expenses are outstanding, some expenses are paid in advance, some incomes not yet received, some incomes received in advance, depreciation not charged on assets, Interest on capital and interest on drawings has not been recorded in the books . So without the adjustments the profit arrived at or the financial position of the concern may not be correct. So these adjustments are to be made before preparing the final accounts.

Adjusting items with its effect in final accounts:-

S.No.	Adjustment items.	Profit & Loss a/c	Balance Sheet
1.	Closing stock	Trading a/c credit side	Assets side
2.	Outstanding expenses	Add to expenses in P&L	Liabilities side
3.	Prepaid expenses	Less from expense	Assets side
4.	Accrued income	Add to income on credit side of Profit &Loss a/c.	Assets side
5.	Income in advance	Less from income on credit side of Profit & Loss a/c.	Liabilities side
6.	Depreciation	Debit side of P&L a/c	Assets side deduct from asset.
7.	Baddebts	Debit side of P&L a/c	Assets side less from debtors
8.	Reserve for bad debts	Debit side of P&L a/c	Assets side less from debtors
9.	Discount on debtors	Debit side of P&L a/c	Assets side less from debtors
10.	Discount on creditors	Credit side of P&L a/c	Liabilities side less from creditors.
11.	Interest on Capital	Debit side of P&L a/c	Liabilities side add to Capital.
12.	Interest on Drawings	Credit side of P&L a/c	Liabilities side less from to Capital.

Adjusting Items with Adjusting Entry:

Adjustment.	Adjustment Entry.
Closing Stock	Closing stock a/c Dr. To Trading a/c
Outstanding expenses	Expenses a/c Dr. To Outstanding expense a/c.
Prepaid expenses	Prepaid expenses a/c Dr. To Expenses a/c
Accrued Income	Accrued income Dr. To income a/c
Income in advance.	Income a/c Dr. To Income in advance.

Depeciation	a) Depreciation a/c Dr. To Asset a/c
Reserve for bad debts.	Profit and Loss a/c Dr. To Reserve for Bad debts.
Discount on Debtors	Profit and Loss a/c Dr. To Discount on Debtors a/c.
Discount on Creditors.	Discount on Creditors a/c Dr. To Profit and Loss a/c

Limitations of Balance Sheet:

Balance sheet is considered to be a static document and it reflects the position of the concern at a given date. The real position of the concern may be changing day-to-day and the same if not depicted in Balance sheet. Accounting policies may differ from company to company in respect of accounting for prior period adjustment, classification between revenue and capital expenditure etc. Window dressing is accomplished in general ways, say by not making adequate provisions for expenses and potential losses. However it is suggested that the same accounting policies are consistently used by management from year to year. Whenever there is a change in accounting policy, the effect of such a change is indicated in the notes of Balance sheet.

Example 5:-

Prepare Trading Account, Profit & Loss Account and a Balance Sheet as on 31.3.2024.

Particulars	Rs.	Particulars	Rs.
Capital	500000	Salaries	120000
Opening Stock	85000	Rent and taxes	40000
Purchases	520000	Postage & Telegram	25000
Creditors	75000	Interest paid	20000
Debtors	120000	Furniture	300000
Sales	910000	Insurance	100000
Discount Received	18000	Freight	20000
Discount allowed	16000	Cash in hand	50000
Purchase returns	20000	Cash at Bank	147000
Sales returns	10000	Motor car	50000

Adjustments :-

1. Closing stock valued as on 31.3.2024 ,Rs 1,70,000 .
2. Salaries outstanding Rs12,000 .
3. Charge depreciation on Motor Car @ 10% P.A.

Solution:Trading account

Particulars	Amount	Particulars	Amount
To Opening stock	85000	By Sales 910000	
To Purchases 520000		-Sales returns 10000	900000
-Purchase returns 20000	500000	By Closing Stock	170000
To Freight	20000		
To Gross profit	465000		
	1070000		1070000

Profit and loss account

Particulars	Amount	Particulars	Amount
To Salaries 120000 + Outstanding 12000	132000	By Gross profit	465000
To Rent & Taxes	40000	By Discount	18000
To Postage	25000		
To Insurance	100000		
To Discount allowed	16000		
To Interest paid	20000		
To Depreciation	5000		
To **Net Profit**	**245000**		
	583000		583000

Balance Sheet

Liabilities	Amount	Assets	Amount
Current liabilities:		Current assets:	
Creditors	75000	Cash in hand	50000
		Cash at bank	147000
Outstanding salaries	12000	Stock	170000
		Debtors	120000
Capital 500000 +Netprofit245000	745000	Fixed assets:	
		Furniture	300000
		Motor car 50000 -Depreciation 5000	45000
	832000		832000

4.7 SELF ASSESSMENT QUESTIONS:

1. Discuss the meaning, nature and limitations of Financial accounts?

2. State and explain adjustments of preparing financial statements?

3. Distinguish between Trading Account and Profit and Loss Account?

4. From the following balances extracted from the books of M/s Bharat Bros, prepare a Trading Account for the year ended 31st March, 2024 Opening Stock Rs 28,000
   Purchases Rs 1,45,000
   Freight Rs 4,000
   Power Rs 6,500
   Custom Duty Rs 5,500
   Sales Rs 80,000
   Closing Stock as on 31st March, 2024,Rs 45,000.

5. From the following information,
   prepare Profit & Loss Account of M/s Sarath Traders for the year ending on 31.03.2024
   Gross ProfitRs 63,000
   Discount allowed to customers Rs 9,000

SalariesRs 25,000
Interest paid on loanRs 18,000
Postage Rs 2,400
Discount received from creditors Rs 6,000
Commission receivedRs 5,000
Sales expenses Rs 8,000.

6. From the following information supplied by Mr. Suresh Kumar, prepare a Balance Sheet as on 31st March, 2024.
   CreditorsRs 25,000/-
   DebtorsRs 40,000 /-
   Cash in hand 34,500/-
   Cash at BankRs 27,500/-
   Stock Rs 22,500 /-
   FurnitureRs 25,000 /-
   Loan Rs 50,000 /-
   Plant & MachineryRs 32,500/-
   Land & BuildingRs 52,000 /-
   CapitalRs 1,27,000/-
   Net Profit Rs 12,000/-
   Drawings Rs 10,000/-.

7. Prepare Trading Account, Profit & Loss Account and a Balance Sheet as on 31.3.2024. From the given below information.

Particulars	Rs	Particulars	Rs.
Capital	300000	Salaries	120000
Opening Stock	65000	Rent and taxes	40000
Purchases	520000	Postage & Telegram	25000
Creditors	70000	Interest paid	20000
Debtors	115000	Furniture	100000
Sales	910000	Insurance	100000
Discount allowed	18000	Wages	20000
Discount received	16000	Cash in hand	50000
Purchase returns	20000	Cash at Bank	47000
Sales returns	10000	Plant & Machinery	50000

Adjustments
1. Closing stock valued as on 31.3.2024 ,Rs 1,50,000 .
2. Salaries outstanding Rs12,000 .
3. Charge depreciation on Plant& Machinery @ 10% P.A.

8. Prepare Trading Account, Profit & Loss Account and a Balance Sheet as on 31.3.2024 from the following information:-

Particulars	Rs.	Particulars	Rs.
Capital	400000	Salaries	120000
Opening Stock	65000	Repairs	40000
Purchases	520000	Postage & Telegram	25000

Creditors	75000	Interest paid	20000
Debtors	120000	Furniture	200000
Sales	910000	Insurance	100000
Discount allowed	16000	Freight	20000
Discount received	18000	Cash in hand	50000
Purchase returns	20000	Cash at Bank	47000
Sales returns	10000	Plant	50000

Adjustments :-
1.Closing stock valued as on 31.3.2024 , Rs. 1,50,000 .
2. Salaries outstanding Rs 12,000/- .
3. Charge depreciation onPlant @ 10% P.A.

4.8 REFERENCES:

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2. I. M. Pandey: Management Accounting, Vikas Publishing House.
3. Narayana Swamy, Financial Accounting: A Managerial Perspective, PHI.
4. M. C. Shukla and T. S. Grewal, Advanced Accounts, New Delhi, S. Chand & Company Ltd., 1989, p.217.
5. J.C. Varshney: Financial and Management Accounting, Wisdom Publication.

Dr. A. Kanaka Durga

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LESSON- 5
BANK RECONCILIATION STATEMENT

OBJECTIVES:

- Meaning of Bank Reconciliation statement.
- Causes of Differences in Bank Balance as per Cash Book and Pass Book.
- Importance of Bank Reconciliation Statement.
- Procedure of preparation of bank Reconciliation statement.

STRUCTURE:

5.1 Introduction.

5.2 Pass book and Cash book.

5.3 Bank Reconciliation Statement.

5.4 Reasons for differences in Cash book and Pass book.

5.5 Transactions in the pass book and cash book.

5.7 Self Assessment Questions.

5.8 References

5.1 INTRODUCTION:

In business trader keeps a record of all transactions with the business in his ledger. An extract from this ledger showing the details of the transactions during a specified period is sent at frequent intervals by the bank to the business and this extract is referred to as a bank statement. The Bank Reconciliation Statement is an aid used to ensure the accuracy of transactions appearing in the bank column of the cash book. Such transactions can be verified through an external record, the bank statement received periodically from the banker. The difference between the cash book and bank pass book will be rectified and shows the correct balances such statement is called Bank Reconciliation Statement.

5.2 PASS BOOK AND CASH BOOK :

A trader opens an account with a bank and the banker gives a book known as Bank Pass Book. Bank records the transactions with the customer in its own books. When the customer deposits cash or cheques in the bank, the banker credits his account. When the customer withdrew cash from the bank or issued cheques for payment, the bank pays money and debits the customer account. If the customer account shows credit balance it means the money of customer is with the bank it shows favourable balance or positive balance. On the other hand, if the account shows debit balance it means the customer is due to the bank, such balance is called Overdraft balance or negative balance. In this case of overdraft, the banker gives more money to the customer than the amount maintained by the customer in the bank.

Cash book will be prepared by the trader. All receipts of cash or through cheque into the bank are entered on the debit side of the cash book. All payments are included on the credit side of the cash book bank column.

Pass Book Proforma:

Name : Branch:

Account No: IFSC Code:

Address:

--------Bank

Date	Particulars	Debit	Credit	Balance	Signature
Jan. 4	By cash		Xxx	Xxx	
Jan.6	To Ranjit	xxx		Xxx	
Jan.31	By interest		Xxx	xxx	
Jan.31	To Bank charges	xxx		xxx	

Triple column Cash Book Proforma:

Date	Particulars	D	Cash	Bank	Date	Particulars	D	Cash	Bank
					Jan. 6	By Ranjit			xxx
Jan.31	To Bank interest			xxx					
					Jan.31	By charges			xxx

Difference between Pass Book and Cash Book:-

Points of difference	Pass Book	Cash Book
Transactions.	All receipts of cash from the customer are entered on the credit side of the pass book.	All payments of cash into the bank are entered on the debit side of the cash book.
Preparation of the Book.	Pass book will be prepared by the banker.	Cash book will be prepared by the trader.
Withdrawals and Payments.	All payments of cash to the customer are entered on the debit side of the pass book.	All withdrawals of cash from the bank are entered on the credit side of the cash book.
Cheques issued and presentation	Cheques presented for payment are entered on the debit side of the pass book only on the date on which they are presented and paid.	Cheques issued to the creditors are entered on the credit side of the cash book on the date of issuing the cheques.
Cheques paid and received.	Cheques received from the customer are credited in the pass book only on the date of the realization of the cheques.	Cheques paid into bank are entered on the debit side of the cash book on the day of depositing the cheques into the bank.
Bank Charges, Bank Interest etc.,	Entries for bank interest, bank charges, payments made by the banker as per standing instructions are entered in the pass book immediately and the same will be intimated to the customer by a letter.	Entries for bank interest, bank charges, direct deposits by others, collections made by the bankers are entered in the cash book after receiving information from the banker.

5.3 BANK RECONCILIATION STATEMENT:

Bank Reconciliation Statement (BRS) is a statement that is prepared by a firm to reconcile the balances as per cash book prepared by the firm and the balances as per pass book recorded by the bank. . The need for bank reconciliation statements arise from the fact that many times there is a difference in both the balances. Bank Reconciliation Statement is prepared to reconcile the difference between the bank Balance shown by the Cash Book and Bank Pass Book. The Bank Reconciliation Statement is an additional tool available to check the accuracy of the bank columns of the cash book.

5.4 REASONS FOR DIFFERENCES IN CASH BOOK AND PASS BOOK:

- Cheques paid into the bank but not collected:-When the trader deposits the cheques into the bank for realization, he enters in cash book on the debit side, it increases the bank balance in cash book. But the bank will not enter unless they have been realized. The cash book balance shows more balance than the pass book.
- Cheques issued but not yet presented:- If the trader isssues a cheque he enters them on the credit side of his Cash Book. It reduces the balance of the cash book (bank column). But the Pass book balance remains same until the cheque is paid by the bank. In order to tally the two balances cheques not yet presented is to reconciled.
- Cheques previously credited in the pass book but later on debited in the pass book when they are dishonoured and the same was not informed to the customer till the date of statement.
- Direct payment:- Amounts paid by the banker and debited in the pass book as per standing instruction but no letter of intimation is received from the banker till the date of preparing the statement.
- Direct Receipt:- Amounts collected and credited by the banker in the pass book as per standing instructions of the customer but no letter of intimation is received from the Bank till the date of preparing the statement.
- Bank Interest is credited in the pass book but not intimated to the customers.
- Bank Charges debited in the pass book only.
- Wrong debit or credit in the pass book.
- Wrong debit or credit in the cash book

5.5 TRANSACTION IN PASS BOOK AND CASH BOOK (Bank column):

The procedure followed in recording the transactions in the pass book and cash book (bank column) :-

S.No.	Transactions	Pass Book	Cash Book (bank column)
1.	Bank balance as per cash book	Credit	Debit
2.	Bank overdraft balance	Debit	Credit
3.	Direct deposit of cash in the bank	Credit	Debit
4.	Cheques received from customers sent to bank for realization.	Credit	Debit
5.	Issue of cheques to Debtors	Debit	Credit
6.	Discounting of cheques or Bills receivable	Credit	Debit
7.	Interest on fixed deposits, dividend on shares.	Credit	Debit
8.	Interest on overdraft, bank charges and	Debit	Credit

	commission.		
9.	Payment of insurance premium paid by the banker due to standing instruction by the customer.	Debit	Credit
10.	Cheques deposited but dishonoured.	Debit	Credit.

Benefits of Bank Reconciliation Statement: -

- BRS helps in tracking errors.
- BRS helps in achieving accurate balance.
- BRS helps to terminate the risks of fraud.
- BRS helps in tracking transaction status periodically

Vital points while preparing Bank reconciliation statement:-

1. Identify the balance given is favourable or unfavourable. If cash book balance is given favourable balance means Debit balance . If pass book balance is given favourable balance means Credit balance as per pass book.
2. Determine the affect of the transaction. While preparing Bank Reconciliation statement we have to find out the affect of the transaction on the pass book balance and cash book balance. If it starts with cash book balance add the transactions that result in increase in pass book balance and deduct the transactions that results in decrease in the pass book balance. If it starts with the pass book balance add the transactions that result in increase in cash book balance and transactions that results in decrease in cash book balance.
3. The important point in the preparation of Bank Reconciliation Statement is reconciliation date. Before starting the problem of the reconciliation date is to be entered in the rough work. Then we have to consider only those transactions recorded in the cash book but not seen in the pass book, or the transactions recorded in the pass book and not seenin the cash book before the reconciliation date. Other transactions to be left over should not be taken into account in the preparation of Bank Reconciliation Statement.
4. If start with cash book balance at the end we will get pass book balance. If we start with pass book balance at the end we will get cash book balance.

Proforma:

Bank Reconciliation Statement as on ---------

	Particulars		**Amount**
	Balance as per Pass Book		**Xxx**
Add:	The cheque omitted to be recorded	xxx	
	Cheque recorded twice	xxx	
	Bank charges debited by the bank	xxx	**xxx**
			Xxx
Less:	Excess Credit for Cash Deposit	xxx	
	Dividend collected by bank	xxx	Xxx
	Balance as per Cash Book		**Xxx**

Example :1

From the following particulars prepare the Bank reconciliation statement of Aradhya Ltd. as of 31st March 2024:

a. Balance as per Pass Book was Rs. 24,000.

b. The bank collected a cheque of Rs. 1000 on behalf of Aradhya Ltd. but forgot to record it in the Pass Book

c. The bank deposits a cash deposit of Rs. 2,589 as Rs. 2,598.

d. The payment of a cheque of Rs. 900 was recorded twice in the Pass Book.

e. The dividend collected by the bank is Rs. 450.

f. Bank charges Rs. 250 debited by the bank.

Bank Reconciliation Statement as on 31st March 2024

	Particulars		**Amount**
	Balance as per Pass Book		**24000**
Add:	The cheque omitted to be recorded	1000	
	Cheque recorded twice	900	
	Bank charges debited by the bank	250	**2150**
			26150
Less:	Excess Credit for Cash Deposit	09	
	Dividend collected by bank	450	459
	Balance as per Cash Book		**2 5 691**

Example :2

From the following particulars of M/s Kannaya industries, prepare bank reconciliation statement as on December 31, 2024

1. Bank balance as per cash book Rs. 42,500
2. Cheques deposited into bank but not credited upto December 31, 2024- Rs. 9,800.
3. Cheques issued but not presented for payment Rs. 14,500.
4. Bank credited Rs. 8,000 for receiving dividend through Electronic Clearing System.
5. Bank charges debited by Bank Rs.400.

Bank Reconciliation Statement as on 31st December, 2024

	Particulars		**Amount**
	Balance as per Cash Book		**42500**
Add:	Cheques issued but not presented for payment	14500	
	Dividend received through Electronic Clearing System.	8000	**22500**
			65000
Less:	Cheques deposited but not credited by the bank	9800	
	Bank charges debited by bank	400	10200
	Balance as per Pass Book		**54800**

5.6 OVERDRAFT BALANCE:

Generally, the Bank overdraft facility will be given by the banker to the customers who maintains current account. The amount overdrawn by the customer than the balance he is having in the bank.

The affect of overdraft balance on the following transactions:-

- When the traders Cheques deposited but not yet collected by the bank, first he will debits in his cash book. It reduces his overdraft. But the bank will not enter the same unless the cheque is realized. Thus the overdraft as per pass book will be more than that of the cash book.
- When the trader issues cheques but not yet presented for payment, he enters them on the credit side of the cash book. If there is overdraft in cashbook it further increases overdraft due with this entry. But the balance is pass book is not affected since these cheques are not yet presented for payment. Thus the overdraft as per cash book will be more than that of pass book.

Bank Reconciliation Statement as on ……….

	Rs.	Rs.
Overdraft balance as per cash book		xxx
Add:- Cheques deposited but not collected.	xxx	
Cheques sent for collection but dishonoured.	Xxx	
Cheques recorded in cash book but did not sent to bank	xxx	
Bank charges, insurance premium paid etc.	xxx	**Xxx**
		Xxx
Less:- Cheques issued but not presented for payment	xxx	
Direct deposit by the customer.	Xxx	
Dividend credited only in pass book.	xxx	Xxx
Overdraft balance as per Pass Book		**Xxx**

Example :3: On March 31, 2024, the Cash book of the M/s. Mahesh & Co shows the credit balanceRs. 9,500/-.

Cheques amounting to Rs.5,500/- deposited into bank but were not collected by the bank.

Firm issued cheques of Rs.3,000/- which were not presented for payment.

There was a debit in the pass book of Rs. 500/- for interest and Rs. 400/- for bank charges.

Prepare Bank Reconciliation Statement.

Bank Reconciliation Statement as on 31st March, 2024

	Particulars		**Amount**
	Overdraft balance as per Cash Book		**9500**
Add:	Cheques deposited but not credited by the bank	3000	
			3000
			12500
Less:	Cheques issued but not presented for payment	5500	
	Bank charges debited by bank	400	
	Interested charged by bank	500	6400
	Overdraft balance as per Pass Book		**6100**

Example :4

From the following particulars of Mithun and Co.

Prepare Bank Reconciliation Statement on March 31,2024 .

Overdraft as per pass book Rs.26,500.

Interest on overdraftRs. 2,600.

Insurance premium paid by the bank Rs.1 800.

Cheques deposited but not yet credited Rs.7,500.

Cheques issued but not present for payment Rs. 8,000.

Wrong credit to firm account by the bankRs. 2,000.

Bank Reconciliation Statement as on 31st March, 2024

	Particulars		**Amount**
	Overdraft balance as per Pass Book		**26500**
Add:	Interest on overdraft	2600	
	Cheques deposited but not credited by the bank	7500	
	Insurance premium paid by bank	1800	**11900**
			38400
Less:	Cheques issued but not presented for payment	8000	
	Wrongly credited by bank	2000	
			10000
	Overdraft balance as per Cash Book		**28400**

5. Prepare a bank reconciliation statement, from the following entries in the bank column of the cash book and corresponding pass book.

Cash Book Bank Column

Date	Particulars	Rs.	Date	Particulars	Rs.
Oct. 1	To balance	14000	Oct.4	By drawings	350
3	To Kasi	1100	8	By Suresh	1650
9	To Pavan	750	12	By Salary	1400
16	To Prakash	1700	16	By Mani	850
23	To Suman	1300	23	By Sundar	2100
27	To Mohan	50	26	ByCommission	50
30	To Kapoor	175	27	By Kamesh	1000
			31	By Suman	550
			31	By Balance c/d	11125
		19075			19075

Bank Pass Book

Date	Particulars	Debit (Rs.)	Credit (Rs.)	Balance (Rs.)
Oct 1.	By balance			Cr. 14000
4	To Cheque - Drawing	350		Cr. 3650
5	By cheque - Kasi		1100	Cr. 4750
9	To Cheque - Suresh	1650		Cr. 3100
11	By cheque - Pavan		750	Cr. 3850
12	To Cheque - Salary	1400		Cr. 2450
17	To Cheque - Mani	850		Cr. 1600

20	By Cheque -Suman		1300	Cr. 2,900
31	By dividend received		450	Cr. 3350
31	To Bank charges To Electricity bill To Cheque - commission	7.50 30 50		Cr. 3342.50 Cr.3312.50 Cr.3262.50

Solution:-

Bank Reconciliation Statement

Particulars			Rs.
Balance as per bank column of cash book			11125
Add : Cheques issued but not presented Sundar Kamesh Suman Dividend	 2100 1000 550 450		 4100 15225
Less: Cheques deposited but not cleared Prakesh Mohan Kapoor Bank charges Electricity bill Balance as per pass book	 1700 50 175 7.50 30		 1962.50 13262.50

5.7 SELF-ASSESSMENT QUESTIONS:

1. What is meant by a Bank Reconciliation statement?
2. What is the need of preparing Bank Reconciliation statement?
3. Enumerate the causes of difference in the balance of cash book and pass book.
4. From the following particulars, prepare Bank Reconciliation statement as on December 31, 2024.
   (i) Balance as per Cash Book Rs. 4,200/-
   (ii) Cheques issued but not presented for payment Rs.2,000/-.
   (iii) Cheques deposited but not collected Rs. 3,000/-.
   (iv) Bank charges debited by the bank Rs. 250/-.

5. Prepare Bank Reconciliation statement as on March 31, 2024. On this date the passbook of M/s Nissan Industries showed a balance of Rs. 47,500/-.

(a) Cheques of Rs. 24,000/- directly deposited by a customer.
(b) Cheques for Rs. 18,500/- were issued during the month of March but of these cheques for Rs.2,500/- were not presented by the end of March.
(c) The bank collected Rs. 3,500/- as dividend on shares.
(d) Cheques of 19500 were paid into bank but of Rs.8500/- were realized in the month of April.

6. On April 1, 2024, Rajendra had an overdraft of 18,000/- as shown by the cash book.

Cheques amounting to Rs. 8,000/- had been paid by him but not collected by the bank till date.
He issued cheques of Rs. 9,000/- which were not presented to the bank for payment.
There was a debit in his passbook of Rs.800 for interest and Rs.250/- for bank charges and a cheque of Rs.8000/- was paid into bank but the same was debited twice in the cash book.
Prepare Bank Reconciliation Statement.

7. Overdraft shown by the passbook of M/s.Mahendra traders is Rs. 25,000/-.
Prepare Bank Reconciliation statement on December 31,2024.

(a) Bank charges debited as per pass book Rs.2,000/-.
(b) Received a payment directly from customer Rs. 9,000/-.
(c) Cheques wrongly recorded in debit side of cash book Rs. 6,000/-.
(d) Cheques issued but not presented for payment Rs. 7,800/-.
(e) Cheques deposited with the bank but not collected Rs.9,500/-.
(f) Insurance premium paid by the bankRs. 5,500/-.

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LESSON-6

INVENTORY VALUATION AND DEPRECIATION

OBJECTIVES:

- Understand the meaning of term 'Inventory'.
- Learn the technique of, FIFO, LIFO, Simple Average Price, Weighted Average Price, Specific Identification Method and Adjusted Selling Price methods of inventory valuation.
- To know about Depreciation and different methods of depreciation.

STRUCTURE:

6.1 INVENTORY VALUATION:

Definition :
According to " International Accounting Standards" (IAS-2) "Inventories are tangible property. They are held for Sale in the ordinary course of business and in the process of production for such sale or to be consumed in the production of goods or services for sale.
Inventory valuation is an accounting practice that is followed by companies to find out the value of unsold inventory stock at the time they are preparing their financial statements. Inventory stock is an asset for an organization, and to record it in the balance sheet, it needs to have a financial value. This value can help you determine your inventory turnover ratio, which in turn will help you to plan your purchasing decisions.

6.2 SIGNIFICANCE OF INVENTORY VALUATION :

In case there is a talk about inventory, there is a mention of the stock-in-trade which is done for the raw materials of the company, finished goods, semi-finished goods, and the other spare parts.

So, in order to get the closing stock, there is a need to calculate the inventory for sure. However, just the counting of inventory is not enough, it needs to be valued as well. This is known as the method of valuation of closing stock. This particular process helps in determining the particular value at which the inventories will be recorded in the company accounting statements.

1. It Helps In Determining Income

With the help of the average cost method of inventory valuation, there is no doubt that people will be able to calculate the gross profit or the loss that happened that particular year. This in turn helps in further calculating the income. This can be done with a basic formula

COGS = Opening Inventory + Purchases + Direct Expenses – Closing Inventory

Students can further get to know about the average cost method formula from the different notes that are provided to them.

2. It Helps in Ascertaining the Company's Financial Position

When companies understand the inventory valuation meaning and how to calculate it, they can use the information to determine whether the company is in a strong financial position or a weak one. This can be done with the help of proper inventory valuation in the best way.

More information on the 10 methods of inventory valuation can be found in the chapter.

3. Liquidity Analysis

In other words, inventory can also be considered as a proper current asset since the company or the firm is not really expected to hold that for a very long time period. In such cases, there are a lot of different turnovers when there is a question of the stock. That is why inventory forms a very important part of the company'sworking capital. Hence, it is essential that the inventory valuation happens properly so the liquid ratios and the current ratios can be accurately calculated without any hassle. These ratios play a very important role when it comes to checking the liquidity of any particular company.

6.3 THE MAIN PRINCIPLES OF INVENTORY VALUATION:

If we go according to the AS 2 inventory valuation facts there is just one basic principle that is used in the valuation of inventory. In a general sense, the inventory of the firm is supposed to be valued at a lower net or cost realizable value. This is a principle that is generated from certain conservative systems regarding accounting. According to this principle, we are supposed to value all the stock or inventory either at the net realizable value or the inventory cost. The lower amount is recorded between the two and that too is done according to the conservative accounting approach.

6.4 IMPORTANCE OF INVENTORY VALUATION :

Proper valuation of inventory is important because of the following three reasons −

- **Importance of sufficient Inventory** − An inventory represents major current asset investment of any trading or manufacturing concern. Shortage of inventory may close down the business. Realization of profit from resale of an inventory makes valuation of inventory. Therefore, the point is that every business unit has to follow a proper method of inventory valuation.

- **To Determine True Financial Position** − Proper valuation of an inventory can only give true and fair view of the financial position of a business unit, as it constitutes a significant portion of the current assets.
- **For Proper Determination of Income** − Proper determination of income and profit depends on correct valuation of the inventories. Over valuation of closing inventory may overstate the profit figure and vice-versa. Therefore, proper valuation of an inventory is necessary to determine the true income and profit by the business concern.

6.5 METHODS OF TAKING INVENTORY:

Following are the two important methods of taking inventory −

- Periodic Inventory Method and
- Perpetual Inventory Method

Periodic Inventory Method :-
This method of stock valuation is also known as physical stock taking method or annual stock taking method. Under this system of taking inventories, stock is determined by physical counting at the end of the accounting period i.e. the date of preparation of final accounts. This system is very simple and useful in small business organizations.

Perpetual Inventory Method :-
This system of inventory valuation records every movement of stock on the receipt and issue of material reflecting running balances of different kind of inventories through preparation of store ledgers for raw material, work-in- progress, and finished goods. To insure the accuracy of store records, a periodic reconciliation of records is done by taking physical inventories.

6.6 METHODS OF INVENTORY:

The methods for inventory valuation:- Mainly
FIFO (First In, First Out),
LIFO (Last In, First Out), and
Average Cost Method.

In FIFO, (First in First out) the first items purchased are the first to leave the warehouse. In other words, whenever you make a sale, under FIFO, the items will be subtracted from the first list of products which entered the warehouse. The material received first will be issued first. First come first served is the basis of issuing materials. In other words , old stocks are issued first and new stocks are issued next. The Closing stock of materials will be valued under this method at the latest prices.

In LIFO, (Last in First out) the items will be issued first from the last arrived goods. In other words, the lot that is received last is placed on top and issues should be made only from this lot. It means materials last should be issued first. Though materials are not issued in the chronological order under this method, the principle that cost should reflect current market conditions is recognized.

Average cost method is used where identification of stock with rate or value of stock is not possible. It is of two types namely,

- Simple Average Price Method
- Weighted Average Price Method

Simple Average Price Method:

Simple Average Price Method Simple Average price for computing value of inventory is a very simple approach. All the different prices are added together and then divided by the number of prices. The closing inventory is then valued according to the price ascertained. This method is generally followed by the entities using periodic inventory method as it does not require efforts of identifying that closing inventory belongs to which consignments or lots.

The Weighted Average Price method uses the item's average cost throughout the year. The average cost per unit is calculated by dividing the total cost by the total number of units purchased during the year.

Other Inventory Methods are:

Highest in First out (HIFO) Method :

This method is based on the assumption that the highest value of material always consumed first and closing stock will be valued at the lowest cost of purchased or manufactured material. This method is not a popular method of valuation of inventory and so, used only by the business units having monopoly products or who are dealing with the cost + contract.

Base Stock Method :

Base stock means — minimum level of stock maintained by a business unit to run his business without any interruption or which is according to AS-2 issued by The Institute of Chartered Accountants of India as "the base stock formula proceeds on the assumption that a minimum quantity of inventory (base stock) must be held at all times in order to carry on business."

Inflated Price Method :

This method of valuation covers normal losses, increasing price of purchases to calculate closing value of an inventory. For example, if 550 units purchased for Rs. 2000 and due to normal loss units, remain 500 then the cost per unit will be 2000/500 = Rs. 4 per unit, and while calculating closing stock value for 100 unit, cost will be Rs. 400 (100 × 4).

Specific Identification Method :

Under this method, where identification of items with price is possible, then closing stock will be valued accordingly.Each item of inventory is identified with its cost. The values of inventory will be constituted by the aggregate of various costs so identified. This method is very suitable for job order industries which carry out individual or goods have been purchased for a specific job or customer. In other words, this method can be applied only where materials used can be specifically and big items such as high quality furniture, paintings, metal jewellery, cars, etc.

However, this method is not appropriate in most industries because of practical problems. For instance; in case of any manufacturing company are having numerous items of inventory, the task of identifying the cost of every individual item of inventory becomes very difficult. Also, it promotes the chances of manipulating the cost of goods sold. It can be done by selecting items that have a relatively high cost or a relatively low cost, as he desires.

Market Price Method :
Under this method of valuation, stock is valued at current market price. It is also called replacement price or realizable price method.
Method of Valuation of Closing Stock when it is not given

Opening stock	Xx
Add: Net Purchases	Xx
Less: Cost of Sales	Xx
Less: Gross Profit	Xx
Value of Closing stock	Xx

Putting value in above formula, we may also calculate the value of opening stock.

Non-Historical Cost Methods :- Non-historical cost methods do not consider the historical cost incurred to acquire the goods. Non- historical cost methods include Adjusted Selling Price method and Standard Cost method. Adjusted Selling Price method can be explained as follows:

(i**) Adjusted selling price method**:
This method is also called retail inventory method. It is used widely in retail business or in business where the inventory comprises of items, the individual costs of which are not readily ascertainable. The use of this method is appropriate for measuring inventories of large numbers of rapidly changing items that have similar margins and for which it is impracticable to use other costing methods. The cost of the inventory is determined by reducing from the sales value of the inventory an appropriate percentage of gross margin. The percentage used takes into consideration inventory which has been marked belowits original selling price. An average percentage for each retail department is often used. Thecalculation of the estimated gross margin of profit may be made for individual items or groups of items or by departments, as may be appropriate to the circumstances.

ii) Standard cost method : This method is used when there is frequent change in the price per unit of the goods and goods are purchased frequently by the business e.g. crude oil. Based on the experience a standard cost is determined on the basis of frequent changes in prices and inventory is valued on that price per unit.

6.7 DEPRECIATION :

The depreciation in the value of an asset may be due to wear and tear, Obsolescence, pass of time or permanent fall of the market. Depreciation is the gradual reduction or loss in the value of fixed assets like building, plant, furniture etc. Depreciation is charged on the fixed assets.

Depreciation will be shown in profit and loss account and deducted from the asset value in the Balance Sheet. Then only the true profit or loss of the business can be ascertained.

Definition:

The word " Depreciation" is derived from a Latin word Depretium, 'De ' means decline and 'pretium' means price and totally it means decline in price.

Institute of cost and Management Accountants (ICMA, London): Depreciation is the diminution in intrinsic value of the asset due to use and /or the lapse of time.

R.N. Career: Depreciation is the gradual decrease in the value of an asset from any cause.

6.7.1 Causes for Depreciation:

There are two causes for providing depreciation.

1. Internal Causes:
   a) Wear and Tear.
   b) Depletion.
   c) Accidents.
   d) Maintenance.
2. External Causes:
   a) Obsolescence.
   b) Lapse of time.
   c) Permanent fall.

6.7.2 Similar words of Depreciation:

1. **Depletion:** Depletion is the decrease in the value of natural resources like mineral deposits, oil, wells etc., due to exhaustion, which may be permanent, gradual and continuing. Whereas depreciation means a permanent, gradual and continuing fall in the value of fixed asset.
2. **Obsolescence:** Obsolescence means loss in the value of an asset due to external reasons like new inventions or changed fashions. But depreciation is fall in the value of an asset mainly due wear and tear.
3. **Amortisation**: Amortisation means the reduction in the value of a long-term investment in intangible assets such as copy right, patent, trademark etc., But depreciation applies only to fixed assets like plant and machinery.
4. **Fluctuations**: It is the temporary change in the market value of a floating asset.It may be a shrinkage or appreciation in the value caused all of a sudden. On the other hand, depreciation is related to the book value of the asset and there is no relation to it with the fluctuation in the market value of the asset.
5. **Dilapidations**: It is the loss or reduction in the value of a leased property. In order to return the leased property to the landlord in original condition, the lease holder sets aside every year some amount and provide funds for setting right the dilapidated assets before it is returned. But depreciation applies only to fixed assets.

Here are the core reasons depreciation is a crucial part of modern accounting methods:

- **The matching principle:-** This longstanding principle in accounting means that expenses should be recognized in the same period as the revenues they help generate.

- **A better depiction of a company's financial position:-** Likewise, it provides a more accurate representation of a company's financial position and performance.
- **Tax benefits:-** Depreciation is a tax-deductible expense. This reduces taxable income and, therefore, the amount of tax a company owes.
- **Managing company assets**:-Depreciation helps businesses track the value of their assets and plan for future replacements.

6.7.3 Methodsof Depreciation:
Different methods of providing depreciation are suitable for different assets depending upon the nature and type of the asset. The methods of depreciation are:

1. Straight line method.
2. Written down value method.
3. Annuity method.
4. Sinking Fund Method.
5. Revaluation Method.
6. Insurance policy method.
7. Depletion Method.
8. Machine Hour Rate Method.
9. Mileage Method.

Straight Line Method:
The amount of depreciation (D) is uniform year after year, bringing down the cost price (P) at time ZERO to the predicted salvage value (L) at time n, (years) where n is the predicted economic (or useful) life. Accordingly
D= P-L/n
Under this method, depreciation is arrived at by providing the original cost of the asset estimated life period. It is the simplest method of charging depreciation.

Diminishing Balance Method (DBM):
Within the Indian context, the term "Diminishing" is more used than "Declining". The method is also called the "written down value method". The residual value of the asset after providing for (i.e. deducting) depreciation in the current year is the "Written down value " (WDV) for the next year (at the beginning). Depreciation through the current year is at a fixed percentage of the WDV at the beginning of the year.

Annuity Method:
Depreciation is the decrease in the value of assets. In other words, it can be said that it is a method of allocating the cost of the asset over its useful life. However, at the end of the accounting year, depreciation is charged to the Profit and Loss A/c. Annuity method of depreciation is also another method of depreciation apart from other methods like the straight-line method, written down value method, etc., This method of depreciation considers the cost of the asset and also the amount of interest lost on the capital expenditure. Thus, it is based on the assumption that if the amount that is spent on the purchase of the asset was invested elsewhere, it would have earned a certain amount of interest.Thus, the amount of depreciation is calculated using the Annuity Tables. The capital expenditure and interest accruing thereof are written off during the life of the asset. The amount of depreciation every year is constant. But, the interest charged in the initial years is more and that in later years is less. This method is suitable in case of long-term leases.

Sinking Fund Method of Depreciation (SFM) :
In this method, it is assumed that the value of the asset decreases at an increasing rate. This is really the fact in actual cases. In this method, one of a series of equal amounts is assumed to be deposited into a sinking (not used for any other purpose) fund at the end of each year of the asset's life. The sinking fund is ordinarily compounded annually, and, at the end of the estimated life of the asset, the amount accumulated equals the total depreciation of the asset.

Revaluation or Appraisal Method:
Revaluation method of depreciation is the easiest method of depreciation. In this method, the asset value is assessed at the staring of the year and at the end of the year and difference between them is considered as depreciation to be charged. Revaluation method of depreciation will be done on fixed assets. Revaluation can be done by external partyor internally.

Insurance policy Method:
Insurance policy method is just like sinking fund method of depreciation, but in this method, the money is used to pay premium for insurance company. Premium will be charged at the start of the year. Money at the end of maturity can be used to buy a new asset.

Depletion Method:
The depletion method of depreciation is an accounting technique used to allocate the cost of extracting or exploiting natural resources throughout their consumption. It applies to industries that rely on finite resources like minerals, oil, gas, timber, or other valuable natural materials.

Unlike other depreciation methods, which focus on the wear and tear or obsolescence of physical assets, the depletion method accounts for the reduction in the quantity or reserves of the natural resource being extracted. It matches the expenses of resource extraction with the revenue generated from the sale of the resource.

The depletion method of depreciation is typically used for natural resources that are being extracted or harvested. Some of the most common types of assets that can be depreciated using this method include:

1. Oil and gas reserves
2. Mineral deposits
3. Timber
4. Water rights
5. Coal deposits
6. Gravel pits.

While the depletion method is most commonly used for natural resources, it can also be used for other types of assets that are consumed over time, such as patents, copyrights, and trademarks. In these cases, the cost of acquiring the asset is spread out over the estimated useful life of the asset, which is typically determined by the length of time that the company has the exclusive right to use the asset.

When using the depletion method for natural resources, there are two main types of depletion that can be used: cost depletion and percentage depletion. Cost depletion is based on the actual cost of acquiring and developing the resource, while percentage depletion is based on a percentage of the gross income generated from the sale of the resource.

Cost depletion is typically used when the cost of acquiring and developing the resource is high relative to the value of the resource itself. In these cases, the cost of acquiring and developing the resource is spread out over the estimated amount of the resource that can be extracted.

Machine hour rate method :
Machine hour rate is called as service hour method. In this method, active hours of machine are taken into account for calculation of depreciation. This method is commonly used in sectors like chemicals, steel and other heavy industries.

Machine hour rate method is one of the methods of absorption of factory overheads into production. In industries like chemicals, engineering, steel and other heavy industries where the work is done mostly by machines, it is desirable to adopt the machine hour rate method for the absorption of factory overheads, because, in such industries, factory overheads largely consist of expenses relating to the maintenance and operation of machines.

Mileage Method:
The mileage method of depreciation is carried out on vehicles (cars, buses, etc.). In this method, depreciation is calculated based on number of kilometers travelled by the vehicle and asset means vehicle.This method is used in transport industries. The working life of the vehicles like asset is expressed in mileage or kilometers. Depreciation per kilometer is calculated by dividing the costof the vehicle by the estimated running kilometers it can travel in its life time. So, Depreciation cost per mile / kilometer = Cost less salvage value 77 Estimated miles / kilometers run during the service life.

6.8 SELF ASSESSMENT QUESTIONS :

1. What is inventory? State the objectives of inventory valuation?
2. Explain various methods of Inventory valuation?
3. Define Depreciation, Depletion and Amortization?
4. What are the purposes of charging depreciation?
5. What are the factors affecting the amount of depreciation?
6. Write a short noteson :
   a) Straight line method. b) Written down value method.
   c) Annuity method d) Sinking Fund Method.

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LESSON-7

FINANCIAL STATEMENT ANALYSIS AND RATIO ANALYSIS

OBJECTIVES:

- To understand the Structure of financial statements.
- To understand Calculation and interpretation of ratios.
- To study in details of ratios.

STRUCTURE:

7.1 INTRODUCTION:

In every business concern is curious to get a profit in a period which can be known through Profit and Loss account/Income statement. How does the business stands at the end can be known through Balance Sheet/Position Statement. Apart from profit and loss account and Balance sheet, statement of retained earnings, schedule of investments are also presented to give a complete view of the financial affairs. These statements put together are called Financial Statements.

7.2 NATURE OF FINANCIAL STATEMENTS:

State of investment in the business and periodical view or report by the management can be known through Financial Statements. They reflect a combination of recorded facts, accounting conventions and personal judgements. Those transactions which cannot be expressed in terms of money will not find a place in the books of accounts and financial statements. Such recorded facts are very important to understand the financial position and future prospects of the concern. Example:- Signing a contract with labour union, appointment of new managing directors etc., Stock should be valued either at cost price or market price whichever is less. Several accounting conventions have also been developed for valuation of debtors and other assets. Data shown in the financial statements are subject to the validity of conventions used in their preparation.

Business transactions are recorded in the books of accounts on the basis of certain assumptions such as ‘going concern concept’, ‘stable value of rupee’ etc., These assumptions or postulates have a vital effect on the nature of financial statements. Accounting conventions and concepts provide a good guideline to the accountant for arriving at a decision as to how much should be charged to profit and loss account of the current year and how much should be carried forward to the next year as unexpired costs, the application of the conventions and concepts depend on the personal judgement of the accountant.

7.3 LIMITATIONS OF FINANCIAL STATEMENTS :

Following are the limitations of financial statements:-
1. Financial statements do not give complete picture about various transactions of the business concern. The information being of historical nature does not reflect the future.
2. It is the outcome of accounting concept, convention combined with personal judgement.
3. The statement portrays the position in monetary term.
4. Validity of financial analysis is reduced when there are price changes.
5. Conclusion drawn from one year financial statements is worthless.
6. Profit and loss account is prepared on the basis of old conventions due to which correct information of net profit is not provided.
7. The financial statements require further detailed analysis and interpretation.

Inspite of all these limitations from which the financial statements suffer, it show only the position of financial accounting rather than the financial conditions of a business.

7.4 FINANCIAL STATEMENT ANALYSIS :

The term’ Financial Analysis’ Which is also known as ‘analysis and interpretation of financial statements refer to process of determining financial strength and weaknesses of the firm by stabilizing relationship between the items of balance sheet, profit & loss a/c and other operative data. The purpose of financial analysis is to diagnose the information context in financial statement so as to judge the profitability and financial position of the firm.

Financial statement analysis is defined as the process of identifying financial strengths and weaknesses of the firm by properly establishing relationship between the items of the balance sheet and the profit and loss account. There are various methods or techniques that are used in analyzing financial statements, such as comparative statements, schedule of changes in working capital, common size percentages, funds analysis, trend analysis, and ratios analysis.

Financial statements are prepared to meet external reporting obligations and also for decision making purposes. They play a dominant role in setting the framework of managerial decisions.

7.5 OBJECTIVES OF FINANCIAL STATEMENT ANALYSIS:

The important objectives are listed below:

1. To ascertain the investment pattern of the resources.
2. To identify areas of mismanagement and potential danger.
3. To interpret the profitability and efficiency of various business activities with the help of income statement.
4. To determine the pattern of movement of inventory.
5. To measure utilization of various assets during the period.
6. To decide about the future prospects of the firms.
7. To compare operational efficiency of similar concerns engaged in the same concern.

The procedure for financial statement Analysis is to collect data which is to be presented in a logical order by rearranging and readjusting the different items. The data is to be analysed for the purpose of preparing comparative statements, for calculation of ratios and for finding out averages and for estimating trends. The interpreted data and information is to be submitted in the form of report.

7.6 TECHNIQUES OF FINANCIAL ANALYSIS:

Financial statements figureswithin can be re-arranged and presented in such forms which make the complex data more intelligible and thereby facilitate analysis and interpretation. Analysis , is thus done by adopting different tools or techniques are as follows:

1. Comparative financial statements.
2. Common-size financial statements.
3. Trend analysis.
4. Ratio analysis.
5. Funds flow statement.
6. Cash flow statement.

7.6.1 Comparative Financial Statements:

The comparative financial statements are the statements of the financial position at different periods of time. The elements of financial position are shown in a comparative form to give an idea of the financial position of two or more periods. Generally two financial statements (balance sheet and income statements) are prepared in comparative form for the purpose of financial analysis. For example, when figure of sales of previous periods are given along with the figures of current period, the analyst will be able to see the trends of sales over different period of time.

I. Comparative Balance sheet:-

Comparative balance sheet as on two different dates can be used for comparing assets and liabilities and finding out on increase or decrease in those items. While interpreting comparative balance sheet, the interpreter is expected to consider the following points.

a. Current financial position- For studying the current financial position, one should see the working capital for both the year. A study of increase or decrease in current assets and current liabilities enable to see the current financial position.
b. Long term financial position- The long term financial position of the concern can be analyzed by studying the changes in fixed assets, long term liabilities & capital. An increase in fixed assets should be compared to the increase in long term loans and capitals.
c. Profitability of the concern- The study of increase or decrease in retained earnings will enable the interpreters to see cheater the profitability has improved or not.

II. Comparative income statement :-
The income statement shows net profit or net loss on accounts of operations of a business. The comparative income statement gives an idea of the progress of a business over a period of time. The interpretation of income statements will involve

i). The increase or decrease in sales should be compared with the increase or decrease of cost of goods sold.

ii). The second step is to study the operational profits

iii). The effect of non-operating expenses such as interest, loans on profit should be studied.

7.6.2 Common size statements :- Common size statements are those in which the figures are converted into percentage on some common basis. The use of these helps in making inter period & inter firm comparison and also in high lighting upon the trends in performance, efficiency & financial position. However any material change in the techniques procedure & principles would render these statements users & insignificant tool of financial analysis.

a. Common size balance sheet- A statement in which balance sheet items are expressed as the percentage of its total.
b. Common size income statements- in common size income statement various item of income statements are shown as percentage of sales.

Comparison of financial statements of one firm with another is not possible.

7.6.3 TREND ANALYSIS:

The term 'trend' refers to any 'general tendency'. Analysis of these general tendencies is called "trend analysis". This trend percentage or ratio can be computed by dividing each amount in the other financial statements with the corresponding item found in the base financial statements. The main advantage of trend analysis is that management can more readily study the changes in financial statements between periods by establishing a base year and other years in relation to base year.

7.7 RATIO ANALYSIS :

Meaning of Ratio :- Generally ratio means establishment of logical relationship between two or more variable. Thus ratio is a numeric relation between two or more items of financial statement.

Ratio analysis :- Ratio analysis is a techniques of analysis and interpretation of financial statements. It is a process of establishing various ratios and their interpretation, to help top management in decision
making. Ratio is not an end in itself but it is a means of understand strength and weakness of the firm properly. Interpretation of the ratio: as the calculations of ratios from the data given in the financial statements is an important function. In the same manner interpretation of these ratios is also the most important function.

Calculation of ratio is a clerical work while for interpretation of ratios skill and foresightedness are required. Normally the interpretation of ratios can be made by the following ways.

1. Single absolute ratio – Generally it is said that if a person interprets a single ratio.
2. Group of ratios – Some of ratios are not important by their own but provides meaningful conclusion when they are interpreted along with other ratios like study of profit on sale with capital employed or current ratio with liquid ratio.

3. Historical comparison - When ratios of various years are compared then this study indicates the direction of the change and shows whether there is a improvement, downfall or constancy in the performance and financial position of the firm.
4. Project Ratios – Various ratios may be calculated as a standard from the projected financial statements.
5. Inter-firm comparison – inter firm comparison of ratios of any firm with the ratios of other firms or with the average ratios of all the firms.

7.7.1 USES OF RATIO ANALYSIS :-
The following are the important managerial uses of ratio analysis –

1. Helps in Financial Forecasting: Ratio analysis is very helpful in financial forecasting. Ratios relating to past sales, profits and financial position form the basis for setting future trends.

2. Helps in Comparison: With the help of ratio analysis, ideal ratios can be composed and they can be used for comparing a firm's progress and performance. Inter-firm comparison or comparison with industry averages is made possible by the ratio analysis.

3. Financial Solvency of the Firm: Ratio analysis indicates the trends in financial solvency of the firm. Solvency has two dimensions-long-term solvency and short-term solvencies. Long-term solvency refers to the financial viability of a firm and it is closely related with the existing financial structure. On the other hand, short-term solvency is the liquidity position of the firm. With the help of ratio analysis conclusions can be drawn regarding the firm's liquidity and long term solvency position.

4. Evaluation of Operating Efficiency: Ratio analysis throws light on the degree of efficiency in the management and utilisation of its assets and resources. Various activity ratios measure this kind of operational efficiency and indicate the guidelines for economy in costs, operations and time.

5. Communication Value: Different financial ratios communicate the strength hand financial standing of the firm to the internal and external parties. They indicate the overall profitability of the firm. 6. Others Uses: Financial ratios are very helpful in the diagnosis of financial health of a firm. They highlight the liquidity, solvency, profitability and capital gearing etc. of the firm.

7.7.2 Limitations of Ratio Analysis:-
1. Limited use of a single ratio: Ratio can be useful only when they are computed in a sufficient large number. A single ratio would not be able to convey anything. At the same time, if too many ratios are calculated, they are likely to confuse instead of revealing any meaningful conclusion.
2. Effect of inherent limitations of accounting:- Because ratios are computed from historical accounting records, so they also possess those limitations and weaknesses as accounting records possess.
3. Lack of proper standards: While making comparisons, it is always a challenging job to find out an adequate standard. It is not possible to calculate exact and well accepted absolute standard, so a quality range is used for this purpose. If actual performance is within this range, it may be regarded as satisfactory.

4. Past is not indicator of future: It is not always possible to make future estimates on the basis of the past as it always does not come true.
5. No allowance for change in price level: While making comparisons of ratios, no allowance for changes in general price level is made. A change in price level can seriously affect the validity of comparisons of ratios computed for different time periods.
6. Difference in definitions: Comparisons are also made difficult due to differences in definitions of various financial terms. The terms like gross profit, net profit, operating profit etc. have not precise definitions and an established procedure for their computation.
7. Window Dressing: Financial statements can easily be window dressed to present a better picture of its financial and profitability position to outsiders. Hence one has to be careful while making decision on the basis of ratios calculated from such window dressing made by a firm.
8. Personal Bias: Ratios are only means of financial analysis and is not an end in itself. Ratios have to be interpreted carefully because the same ratio can be looked at, in different ways.

7.7.3 CLASSIFICATION OF RATIOS : -

Various accounting ratios are broadly classified as under –
1. Short term financial position ratios or liquidity ratios.
2. Activity or turnover ratio.
3. Profitability ratios.
4. Long term financial positions or solvency ratios.

Short Term Financial Liquidity Ratios:-

(i) **Current Ratio** = A liquidity ratio that measures a company's ability to pay short term obligations.

Current Ratio = Current Assets /Current Liabilities

Interpretation – If the current ratio is low it represents that the liquidity position of the firm is not good and the firm is not able to pay its current liabilities immediately. On the other hand, if the current ratio is very high it indicates idle assets which are not properly utilized. There should be proper balance between these two situations. A current ratio of 2:1 is considered on ideal situation. Significance – Current Ratio is an index of the firm's financial stability. It provides a margin of safety of the creditors and indicates strength of working capital. Limitation1. It is crude measurement of liquidity because it measures only the quantity and not the quality of current assets.

(ii) Quick ratio is used as a measure of the company's ability to meet its current obligation.

Quick/Liquid/Acid Test Ratio = Liquid Assets/ Current Liabilities

Liquid Assets = Current Assets – (Stock and prepaid expenses) Interpretation – A high quick ration is an indication that the firm has the ability to meet its current liabilities in time and on the other hand, a low quick ratio represents that the firms liquidity position is not good. Quick ratio of 1:1 is considered satisfactory It indicates high solvent positions. Significance :-
1. It is the real test of liquidity position.
2. It gives better picture of firms ability to meet its short term obligations.
3. It is used as a supplementary ratio to the current ratio.
4. It is more of a qualitative nature of test

(iii) **Absolute Liquidity Ratio/Super Quick Ratio** – Absolute liquid assets include cash in hand, cash at bank readily saleable securities and short term investment because it is assumed that all creditors will not demand their amount at once and mean while cash can be recovered from stock and debtors.

Absolute liquid Ratio = Absolute liquid Assets /Current Liabilities.

Example 1:

Liabilities	Rs.	Assets	Rs.
Equity Share Capital	5,00,000	Land & Building	1,00,000
Prefere. share capital	2,00,000	Machinery	4,00,000
General Reserve	1,00,000	Furniture	50,000
Secured Loan	3,00,000	Inventory	3,00,000
Sundry Creditors	1,00,000	Sundry Debtors	3,00,000
		Cash/Bank Balance	50,000
Total	12,00,000	Total	12,00,000

Calculate following Ratios from the above balance sheet:
1. Current Ratio.
2. Liquid Ratio .
3. Proprietary Ratio.
4. Capital Gearing Ratio.
5. Debt Equity Ratio.

Solution:

1. Current ratio	= Current assets/current liabilities Current assets = inventory (3,00,000)+ sundry debtors(3,00,000) + cash balance(50,000) = 6,50,000 Current liabilities = S.Creditors = 1,00,000 = 6,50,000/1,00,000 = 6.5:1
2. Liquid ratio	= liquid assets/liquid liabilities liquid assets = s.debtors(3,00,000) + cash balance(50,000) = 3,50,000 liquid liabilities = S.Creditors = 1,00,000 = 3,50,000/1,00,000 = 3.5:1
3. Proprietary Ratio.	Proprietors fund / total assets Proprietor fund = Share capital(Equity & Pref.) + Retained earnings (less loss if any) -Fictitious assets = 5,00,000 + 2,00,000 + 100,000 = 8,00,000 Total Assets = Fixed Assets + Current Assets-Fictitious assets = 12,00,000 = 800,000/12,00,000 = 0.66 : 1
4. Capital Gearing Ratio.	= Fixed Interest & Dividend Bearing Funds/ Equity Share holders fund Fixed Interest & Dividend Bearing Funds = pref sh. (2,00,000) + secured loan (3,00,000) = 500,000 Equity Share holders fund = Eq. Shares (5,00,000) + GR (100,000) = 600,000 = 500,000 / 600,000 = 0.83 : 1
5. Debt Equity Ratio	=Long Term Debt /Proprietors Fund Long term debt = secured loan (300,000) = 3,00,000/8,00,000 = 0.38 : 1

Activity Ratios or Turn over Ratios or Efficiency Ratios :

In any business funds are invested in various assets to earn sale and profit. If the management of assets is better, then amount of sale and profit will be higher. Efficiency ratios measures the efficiency and effectiveness with which company manages its resources & assets. These are also called turn over ratios, because these ratios indicate the speed with which assets are converted into sale like stock into sale.

1. (a) **Inventory /Stock turnover ratio**- A firm must have reasonable stock of inventories in comparison to sales. The level of inventory should neither be too high nor too low.
   Inventory/ Stock turn over Ratio = cost of goods sold/ average inventory
   (b) Inventory Conversion period- It is also important to see average time taken for clearing the stocks. = 365/ 360 inventory turn over ratio.
   Interpretation :-This ratio measures the velocity of conversion of stock into sales. A high inventory turnover indicates efficient management of inventory because if stock are sold speedly lesser amount of money will be involved in inventory. A low inventory turnover indicates dull business, accumulation of obsolete stock poor investment in inventories.

2. **Debtors/ Receivables turn over or debtors velocity-** Generally all the business firms sales goods on credit as well as for cash credit is considered as tool for higher sale. It is expected that business debtors can be converted in cash within the short period, and due this they are included in the current assets. = Net credit sales/ average accounts receivables It should be noted that

I . Average account receivable = Average Debtors + Average B/R
ii. Average Debtors = opening debtors +closing debtors/ 2
iii. Average B/R = opening B/R+closingB /R /2

Interpretation :-Debtors velocity indicates the number of times the debtors are turned over during the year. If the turnover is higher, it shows higher liquidity and efficiency of management. On the other hand low debtors turnover implies poor liquidity and less efficient management.

3. **Average collection period or debts collection period**- By this ratio a form comes to know that in how many days its receivables will be converted into cash. = average debtors and B/R net credit sales x 365/12

4. **Creditors turnover ratio or creditors velocity or payable turnover-** creditors turnover ratio is similar to creditors turnover ratio is similar to debtors turnover ratio. It indicates the speed with which the payment are made to the creditors. = net credit purchases/ average A/C payables

   It should be noted that i. Average accounts payable= Average Creditors + Average bills payable

ii. Average Creditors = opening creditors +closing creditors/ 2
iii. Average bills payable = opening B/P+closingB /P /2

5. **Average payment period** :- It indicates the average days which a firm takes to make payment to its creditors. = Average A/c /payable Credit Purchase x 365/ 12 Or = Months / Days in a year Creditor turnover Significance :- Both the creditors turn over ratio and the average payment period indicates the promptness in making payments to creditors. Generally, lower the ratio, better the liquidity position of the firm and higher ratio implies less liquidity position of the firm.

6. **Working capital turn overratio**:- Working capital of every firm is directly related with its sales because it increase and decrease with change in current assets & current liabilities = sales 2 average working capital Average working capital = opening W/C+closingW /C /2

If the sale is not given, the figure of COGS can be used

Working capital turnover ratio = Sales / cost of sales net working capital

7. **Fixed Assets Turnover Ratio**:- This ratio measure the efficiency as well as profit earning capacity of the firm = sales/ net fixed assets

Net fixed assets = value of assets – depreciation.

INCOME STATEMENT RATIOS:

1. **Gross Profit Ratio** = $\frac{Grossprofit}{Netsales}$ x100

   Purpose: Indicates the efficiency of production and trading operations .
2. **Operating Ratio** = = $\frac{Cost\ of\ goods\ sold\ +Operating\ expenses}{Netsales}$ x100

   Purpose: index of managerial ability to control operating expenses.
3. **Expenses Ratio**= $\frac{Operating\ expenses}{Netsales}$ x100

   (Expenditure may be cost of production or Cost of sales, administrative or Selling or distribution expenses or any other Element of Group)

   Purpose: Indicates the direction in which economies ought to be effected
4. **Net Operating Profit Ratio** = $\frac{Operatingprofit}{Netsales}$ x100

   Purpose: Index of Operating Efficiency.
5. **Net Profit Ratio** = $\frac{Netprofit}{Netsales}$ x100

   Purpose: Indicates Net Margin on sales.

Example. 2:

Following is the Income Statement of Varun Auto. Ltd. For the year ended 31st Dec 2024. You are required to calculate: 1) Gross Profit Ratio; 2) Operating Ratio; 3) Net operating Profit Ratio and 4) Net Profit Ratio.

Particulars	Rs.
Sales	4000000
Less: Cost of goods Sold	3200000
Gross Profit	800000
Less: Operating Expenses	480000
Operating Profit	320000
Add: Non –operating income	48000
	368000
Less: Non –operating Expenses	16000
Profit before Tax	352000
Less: Tax @ 30%	105600
Net Profit After Tax	246400

Solution:

1. Gross Profit Ratio $= \frac{Grossprofit}{Netsales}$ x100= $\frac{800000}{4000000}$ x100=20%.

2. Operating ratio = $\frac{Cost\ of\ goods\ sold\ +Operatin\ \ expenses}{Netsales}$ x100= $\frac{3200000+480000}{4000000}$ x100=92%.

3. Net operating profit Ratio = $\frac{Operatingprofit}{Netsales}$ x100=$\frac{320000}{4000000}$ x100=8%.

4. Net profit ratio = $\frac{Operatingprofit}{Netsales}$ x100=$\frac{246400}{4000000}$ x100=6.16%

7.8 SELF ASSESSMENTQUESTIONS:

1. What are financial statements?
2. State the objectives of financial statement analysis?
3. Mention the main tools of financial statement analysis?
4. What are turnover ratios? Discuss with formulaes.
5. Examine the relationship between solvency, liquidity and profitability?

Exercises:

1. Following is the Income Statement of Danush Pvt. Ltd. For the year ended 31st March 2023.

Particulars	Rs.
Sales	3000000
Less: Cost of goods Sold	2200000
Gross Profit	800000
Less: Operating Expenses	280000
Operating Profit	520000
Add: Non –operating income	42000
	478000
Less: Non –operating Expenses	26000
Profit before Tax	352000
Less: Tax @ 40%	140800
Net Profit After Tax	211200

Calculate: 1) Gross Profit Ratio; 2) Operating Ratio; 3) Net operating Profit Ratio and 4) Net Profit Ratio.

2. From the following information for the year ended 31 st Dec 2023,
   You are required to calculate:

1) Gross Profit Ratio; 2) Operating Ratio; 3) Net operating Profit Ratio and 4) Net Profit Ratio.
   Total Sales- Rs. 1 5,00,000/-
   Sales Return- Rs. 150,000/-

Gross Profit – 40% of Net Sales.
Cost of goods sold – Rs. ??
Operating Expenses – Rs.1,20,000/-
Non-operating Income – Rs. 21,000/-
Tax Rate is 50%.

3.The Following Balance sheet has given below:

Liabilities	Rs.	Assets	Rs.
Equity Share Capital	5,00,000	Land & Building	1,00,000
Prefere. share capital	2,00,000	Machinery	4,00,000
General Reserve	1,00,000	Furniture	50,000
Secured Loan	3,00,000	Inventory	3,00,000
Sundry Creditors	1,00,000	Sundry Debtors	3,00,000
		Cash/Bank Balance	50,000
Total	12,00,000	Total	12,00,000

Calculate Following Ratios from the above balance sheet:
1. Current Ratio.2. Liquid Ratio
3. Proprietary Ratio. 4. Capital Gearing Ratio.
5. Debt Equity Ratio.

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LESSON- 8
FUNDS FLOW ANALYSIS

OBJECTIVE:

After studying this unit, you will be able to-

- Explain the concept of funds and their sources and uses;
- Discuss the need for a fund flow statement;
- Distinguish between funds flow statement and other financial statements;
- Elaborate the procedure of preparing a funds flow statement; and
- Explain how the fund flow statement can be used in real life for different decision-making.

STRUCTURE:

8.1 INTRODUCTION:

The balance sheet and profit and loss account provide significant information about the firm to the owners, management, and investors, but these financial statements do not provide other useful information required by the management for decisions making. The very objective of the firm is to know the kind of funds that were available during the accounting period and for what purposes these funds were utilized. The balance sheet of a firm discloses the position of assets, liabilities, and capital at the end of a particular year. But it does not 283 disclose the causes of changes in these items between the end of the previous Fund Flow Statement year and the end of the current year. Therefore, an additional statement called 'Funds Flow Statement' is prepared to show the changes in assets, liabilities, and capital between the dates of the two balance sheets. Funds flow statement is a summary of increases or decreases in working capital over a period of time. This is a statement of changes in the financial position that summarizes the period covered by it, the changes in the financial position including the sources from which funds were obtained by the enterprise, and the specific uses to which such funds were applied. The term 'fund' does not mean cash. It is generally used to denote the difference between current assets and current liabilities i.e. working capital. The term 'Flow' means to change or movement of working capital

8.2 MEANING OF FUNDS FLOW:

Fund flow refers to the working capital of the company, and a fund flow statement is prepared to visualize the changes in working capital of the company over a period of time. Investors use the fund flow information to determine where capital needs to be invested. There are two types of inflow of funds in a business.

1. Funds generated by the business operations
2. Long term funds raised by issuing shares or sale of fixed assets.

DEFINITION:

A fund flow statement is a statement prepared to analyze the reasons for changes in the financial position of a company between two balance sheets. It portrays the inflow and outflow of funds i.e. sources of funds and applications of funds for a particular period.

A fund flow statement is prepared to explain the changes in the working capital position of a company.

8.3 OBJECTIVES OF FUND FLOW ANALYSIS:

Fund flow analysis is a financial tool used to assess the changes in a company's financial position over a specific period by examining the sources and applications of funds. The primary objectives of fund flow analysis include:

1. **Identifying Sources and Uses of Funds**: It helps in tracking where the funds are coming from (such as operating activities, financing, or investing) and how they are being utilized (like investments, debt repayment, or operational expenses).
2. **Analyzing Changes in Financial Position**: By comparing balance sheets from different periods, fund flow analysis highlights the reasons behind changes in assets, liabilities, and equity, providing insights into the company's financial health.
3. **Assessing Operational Efficiency**: It evaluates how effectively a company is generating and using its funds, offering a clear picture of operational performance and areas that may require improvement.
4. **Facilitating Long-term Financial Planning**: Understanding the movement of funds aids in strategic planning and resource allocation, ensuring that the company can meet its future financial obligations and investment goals.
5. **Evaluating Working Capital Management**: The analysis provides insights into changes in working capital, helping to identify trends and manage short-term assets and liabilities more effectively.

By achieving these objectives, fund flow analysis serves as a vital instrument for stakeholders to make informed decisions regarding the company's financial strategies and operations.

8.4 UNDERSTANDING SOURCES AND USES OF FUNDS:

Fund flow analysis aims to identify and understand the sources from which funds are generated (cash inflows) and how these funds are utilized (cash outflows) within an organization. It helps in tracking the origins of funds, such as proceeds from equity issuance, debt financing, operating activities, or asset sales. Simultaneously, it examines the deployment of these funds for various purposes like investments in assets, repayment of debt, payment of dividends, or financing operational expenses.

8.5 IMPORTANCE OF FUNDS FLOW STATEMENT:

A **fund flow statement** is a vital financial document that offers a detailed analysis of the changes in a company's financial position over a specific period. It highlights the sources from which funds are generated and the areas where these funds are utilized, providing a comprehensive view of the company's financial dynamics.

Key Importance of Fund Flow Statements:

1. **Assessing Financial Health**: By detailing the inflow and outflow of funds, this statement enables stakeholders to evaluate the company's ability to manage its working capital effectively, reflecting its overall financial stability.
2. **Informing Investment Decisions**: Investors gain insights into how efficiently a company utilizes its funds, aiding them in making informed decisions about potential investments. Efficient fund utilization often indicates prudent financial management and growth potential.
3. **Facilitating Credit Analysis**: Creditors and financial institutions utilize fund flow statements to assess a company's creditworthiness by examining its fund flow patterns and repayment capacities.
4. **Aiding Managerial Decision-Making**: Management relies on these statements for strategic planning, as they provide crucial information on the availability and allocation of financial resources, helping in budgeting and forecasting.
5. **Enhancing Transparency and Accountability**: Fund flow statements promote transparency by clearly depicting the movement of funds within the organization, ensuring accountability in financial reporting.
6. **Supporting Long-Term Financial Planning**: These statements assist in long-term financial planning by highlighting trends in fund generation and utilization, enabling companies to strategize for future financial needs and growth opportunities.

In summary, fund flow statements are indispensable tools in financial analysis, offering critical insights into a company's financial operations and facilitating informed decision-making for investors, creditors, and management alike.

8.6 LIMITATIONS OF FUND FLOW ANALYSIS:

While fund flow analysis is a valuable tool for understanding a company's financial movements, it has several limitations:

1. **Historical Data Dependence**: Fund flow statements are based on past financial data, which may not accurately predict future performance or financial conditions.

2. **Exclusion of Non-Cash Transactions**: These statements focus solely on fund movements and often omit non-cash transactions, potentially overlooking significant aspects of financial activities.
3. **Lack of Cash Position Insight**: Fund flow statements do not provide information about a company's immediate cash position, necessitating the use of cash flow statements for a comprehensive liquidity analysis.
4. **Limited Scope**: They primarily address changes in working capital and may not encompass other critical financial metrics found in balance sheets or profit and loss accounts.
5. **Complexity and Time-Consumption**: Preparing fund flow statements can be intricate and time-consuming, especially for large organizations with complex financial structures.
6. **Potential for Misinterpretation**: Without a thorough understanding of the underlying data, fund flow statements can be misleading, emphasizing the need for careful analysis.

Due to these limitations, fund flow analysis should be used alongside other financial tools and statements to gain a more accurate and holistic view of a company's financial health.

8.7 USES OF FUND FLOW ANALYSIS:

Fund flow analysis is a powerful tool that helps analyze a company's financial position. Let's explore the various uses of fund flow analysis.

- **Assessing Sources and Uses of Funds**

Fund flow analysis helps in identifying and analyzing the sources from which funds are generated (inflows) and how these funds are utilized (outflows) within an organization. It provides insights into whether funds are derived from operating activities, financing (such as equity or debt issuance), investing (such as asset sales or acquisitions), or other sources. Similarly, it tracks how these funds are allocated towards investments, debt repayment, dividends, working capital, and other expenditures.

- **Evaluating Financial Health and Liquidity**

Fund flow analysis evaluates the overall financial health and liquidity of the organization. By examining the net changes in funds over specific periods, it assesses the organization's ability to generate sufficient cash flows to meet its financial obligations and operational needs. Positive fund flows indicate healthy financial management, while negative flows may signal liquidity challenges or excessive spending.

- **Supporting Strategic Decision Making**

Fund flow analysis supports strategic decision-making processes within organizations. It provides critical insights into funding requirements, cash flow projections, and capital allocation decisions. This information helps management prioritize investments, allocate resources effectively, determine optimal financing options, and plan for future growth and expansion initiatives based on historical fund flow trends.

- **Detecting Financial Irregularities or Mismanagement**

Fund flow analysis serves as a tool to detect financial irregularities, potential fraud, or mismanagement within an organization. Discrepancies between expected and actual fund flows can indicate issues such as misappropriation of funds, unauthorized expenditures, or inefficiencies in financial operations. Early detection through fund flow analysis enables management to take corrective actions promptly, mitigate risks, and safeguard financial integrity.

- **Facilitating Budgeting and Forecasting**

Fund flow analysis facilitates the development of budgets, financial forecasts, and cash flow projections. By analyzing historical fund flow statements, organizations can forecast future fund flows based on anticipated business activities and economic conditions. This helps in preparing realistic budgets, monitoring cash flow trends, identifying potential funding gaps, and aligning financial planning with strategic objectives.

8.7 ADVANTAGES OF FUND FLOW ANALYSIS:

Fund flow analysis is a helpful way to examine how money moves in and out of a company during a certain time frame. Yet, fund flow analysis has its own set of advantages and disadvantages. Let's see some advantages of fund flow analysis.

➢ **Understanding Fund Sources and Uses**

Fund flow analysis provides a clear understanding of the sources from which funds are generated and how these funds are utilized within the organization. By tracking cash inflows and outflows over specific periods, organizations can identify the primary sources of finance (such as operating activities, financing, or investing) and the allocation of funds towards various expenditures (such as investments, debt repayment, dividends, and working capital). This understanding helps in optimizing fund utilization, ensuring efficient resource allocation, and aligning financial strategies with organizational goals.

➢ **Assessing Financial Health and Stability**

Fund flow analysis evaluates the overall financial health and stability of the organization. It helps in assessing whether the organization is generating sufficient cash flows to support its operational needs, debt obligations, and growth initiatives. Positive fund flows indicate healthy financial management practices and adequate liquidity, while negative fund flows may signal liquidity challenges or inefficiencies that need to be addressed. This assessment guides management in making informed decisions to enhance financial stability and mitigate financial risks.

➢ **Supporting Strategic Decision Making**

Fund flow analysis supports strategic decision-making processes within organizations. By providing insights into historical fund flow trends and projections, it helps management prioritize investments, allocate resources effectively, and determine optimal financing options. This information facilitates strategic planning for business expansion, acquisitions, capital expenditures, and other initiatives aligned with long-term organizational objectives. Fund flow analysis ensures that financial decisions are based on reliable data and informed assessments of funding requirements.

➢ **Detecting Financial Irregularities and Fraud**

Fund flow analysis serves as a tool to detect financial irregularities, potential fraud, or mismanagement. Discrepancies between expected and actual fund flows can indicate unauthorized expenditures, misappropriation of funds, or inefficiencies in financial operations. Early detection through fund flow analysis enables management to implement controls, investigate anomalies, and take corrective actions promptly. This proactive approach helps safeguard financial integrity, maintain transparency, and build trust with stakeholders.

- **Facilitating Budgeting and Forecasting**

Fund flow analysis facilitates the development of accurate budgets, financial forecasts, and cash flow projections. By analyzing historical fund flow statements, organizations can forecast future fund flows based on anticipated business activities and economic conditions. This enables management to anticipate funding needs, plan for capital expenditures, and align financial resources with operational requirements. Effective budgeting and forecasting supported by fund flow analysis improve financial planning accuracy, mitigate cash flow risks, and optimize financial performance over time.

8.9 DISADVANTAGES OF FUND FLOW ANALYSIS:

Some disadvantages of fund flow analysis are listed below.

- **Focus on Historical Data**

Fund flow analysis primarily relies on historical data and may not provide real-time insights into current financial conditions. As a backward-looking analysis, fund flow statements reflect past fund movements and may not capture recent developments, economic changes, or unexpected events that impact the organization's current financial position. This limitation can hinder timely decision-making and responsiveness to evolving market conditions.

- **Complexity and Interpretation**

Fund flow analysis can be complex and challenging to interpret, especially for non-financial professionals. Understanding fund flow statements requires a deep understanding of accounting principles, financial analysis techniques, and the organization's specific business context. The reconciliation of cash flows with changes in operating, investing, and financing activities can be intricate, making it difficult to derive actionable insights without specialized expertise.

- **Limited Focus on Non-Cash Transactions**

Fund flow analysis focuses primarily on cash flows and may overlook significant non-cash transactions and adjustments. Non-cash items such as depreciation, amortization, changes in working capital, and accrual-based accounting adjustments are critical for assessing profitability and financial performance. Since fund flow statements do not account for these items directly, they may provide an incomplete picture of the organization's true financial health and operating efficiency.

- **Inability to Predict Future Performance**

Fund flow analysis does not predict future financial performance or anticipate changes in market dynamics. While fund flow statements provide insights into historical fund movements, they do not forecast future cash flows, profitability, or growth prospects. This limitation restricts their utility in strategic planning, budgeting, and forecasting future funding requirements, which are crucial for long-term financial management and sustainability.

- **Lack of Standardization**

Fund flow analysis lacks standardized reporting formats and methodologies compared to cash flow statements under accounting standards. Different organizations may use varying approaches to prepare fund flow statements, leading to inconsistencies in reporting practices and difficulty in comparing financial performance across companies or industries. This lack of standardization can hinder benchmarking, industry analysis, and transparency in financial reporting.

8.10 PREPARATION OF FUNDSFLOWSTATEMENT:

The fund flow statement (FFS) is intended to explain the magnitude, direction, and causes of changes in the position of funds (net working capital) that took place during the two balance sheet dates. Thus, it highlights the basic changes in the financial structure, asset structure, and the liquidity position of a business between two balance sheet dates. But primarily, it reveals changes in the financial position of the company by identifying the sources and application of funds resulting from financing and investing decisions that took place during a particular period.

The preparation of a fund flow statement involves essentially the following three steps:

1) Schedule of Changes in Working Capital.
2) Statement of Funds from Operations.
3) Preparation of the Funds Flow Statement (on a working capital basis)

8.10.1 SCHEDULE OF CHANGES IN WORKING CAPITAL As explained earlier, the first step in the preparation of the fund flow statement is to prepare the schedule of changes in working capital. For this purpose, all non-current items are to be ignored as the net working capital is simply the difference between current assets and current liabilities. To ascertain the amount of increase or decrease in the net working capital, it could be noted that:

i) An increase in any current asset, between the two balance sheet dates, results in an increase in net capital and a decrease in any current asset result in a decrease in net working capital; and

ii) An increase in any current liability, between the balance sheet dates decrease the net working capital whereas a decrease in any current liability

Statement of Changes in Working Capital

Particulars	Previous Year	Current Year	Effect on working capital	
			Increase	Decrease
Current Assets: Cash in hand Debtor Inventory Bills Receivable				
Total Current Assets (A)				
Current Liabilities: Trade Creditors Bills Payable				
Total Current Liabilities (B)				
Total Working Capital (A-B)				
Change in Working Capital				

8.10.2 STEP 2: DETERMINATION OF FUNDS FROM OPERATIONS: Funds from operations refers to the profit earned or loss incurred from the regular business operation. The ascertainment of funds from the operation is vital for the preparation of funds flow.

Statement of Funds from Operations

Particulars		Amount
Net Profit After Tax for the year		xxx
Add: Non-Operating Expenses:		
Depreciation	xxx	
Loss on Sale of Fixed Assets	xxx	
Interest on Debentures	xxx	
Goodwill Written Off	xxx	
Provision for Tax	xxx	
Proposed Dividend	xxx	
Interim Dividend	xxx	
Transfer from Statement of Profit & Loss	xxx	xxx
Less: Non-Operating Incomes:		
Interest on Investment	xxx	
Dividend Received	xxx	
Profit on Sale of Fixed Assets	xxx	
Interest on Bank Deposit	xxx	
Refund of Tax	xxx	(xxx)
Net Fund Flow From Operations		xxx

8.10.3 STEP 3: PREPARATION OF FUND FLOW STATEMENT:

After recognizing the funds/loss from operations, fund flow statement is prepared, which will show the net increase or decrease working capital

Fund Flow Statement

Particulars	Amount
Sources of Funds:	
Funds from Operations	xxx
Sale of Fixed Assists	xxx
Sale of Investments	xxx
Issue of Shares	xxx
Issue of Debentures	xxx
Long Term Borrowings	xxx
Total (A)	**xxx**
Application of Funds:	
Loss from Operations	xxx
Payment of Dividend	xxx
Payment of Taxes	xxx
Purchase of Fixed Assets	xxx
Repayment of Loans	xxx
Redemption of Debentures	xxx
Redemption of Preference Shares	xxx
Total (B)	**xxx**
Net Increase or Decrease in Working Capital (A-B)	**xxx**

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Basically, any change in the assets and liabilities may result in the inflows and outflows of funds, but not always, as in case of depreciation or revaluation of assets, there is no inflow or outflow of funds. Hence, only those assets or liabilities will become a part of the statement, which actually leads to the flows of the fund to/from the business.

8.11 CALCULATION OF SCHEDULE OF CHANGES IN WORKING CAPITAL:

Illustration 1 From the following Balance Sheets as on 31st March 2020 and 2021, Prepare a Schedule of Changes in Working Capital:

BALANCE SHEETS(Amount in Rs.)

Liabilities	**31.3.20 Amount (Rs.)**	**31.3.21 Amount (Rs.)**	**Assets**	**31.3.20 Amount (Rs.)**	**31.3.21 Amount (Rs.)**
Share Capital	1,50,000	1,25,000	Cash in Hand/Bank	70,000	25,000
Reserves & Surplus	90,000	65,000	Receivables	90,000	98,000
Surpluses	25,000	------	Stock	1,25,000	87,000
Bank Loan	35,000	20,000	Investments	10,000	50,000
Trade Creditors	35,000	50,000	Goodwill	40,000	25,000
Total	**3,35,000**	**2,60,000**	**Total**	**3,35,000**	**2,60,000**

Schedule of Change in Working Capital
(Amount in Rs.)

Particulars	**31-03-2020 (Rs.)**	**31-03-2021 (Rs.)**	**Increase in Working Capital (Rs.)**	**Decrease in Working Capital (Rs.)**
Current Assets				
Stock	1,25,000	87,000	38,000	
Cash in Hand/Bank	70,000	25,000		45,000
Receivables	90,000	98,000	8,000	
Total Current Assets (A)	2,85,000	2,10,000		
Current Liabilities				
Trade Creditors	35,000	35,000		
Total Current Liabilities (B)	35,000	35,000		
Working Capital (A - B)	2,50,000	1,75,000		75,000
Total Decrease in Working Capital				75,000

Funds from Operations: The major source of working capital is the net profit from operations. The net profit from operations is the source of funds and net loss from operations is the use or application of funds. Profit is the result of revenue over expenses. When a business earns profit the net working capital gets increased to the extent of the profit earned.

Therefore, the profit earned constitutes an important element of the funds provided by operations. Certain items charged and revenues earned actually do not involve any flow of funds during the current period. Similarly, certain deferred revenue expenses written off like preliminary expenses, discount on the issue of shares, etc. do not involve any outflow of funds. Hence, these items are added back to the net profit in order to arrive at the amount of funds from operations. Also, there are certain non-operating incomes and expenses like profit or loss on the sale of fixed assets, dividend from investment, etc. are taken into account to arrive at the net operating results of the business. The profit or losses arising out of these transactions are not regular operations of the business. Hence, the effect of these items must not be taken into account while preparing funds from operations, i.e., the profit on such items is to be excluded from the net profit and loss must be added back to the net profit to ascertain the amount of funds from operations. There are many items that are charged and credited to the profit and loss account but do not affect working capital. Hence, all such items need adjustment to calculate funds from operations. (a) Items to be added back to the Net profit:

To arrive at funds from operations, the non-fund items which do not affect current assets or current liabilities and non-trading expenses and losses are added to the net profit disclosed by the profit and loss account at the end of the year. Such items are: 287 288 Fundamentals of Accounting

- Depreciation of fixed assets
- Loss on sale of fixed assets
- Discount on issue of shares and debentures
- Underwriting commission
- Premium on redemption of debentures
- Preliminary expenses
- Goodwill written-off
- Deferred revenue expenses
- Provision for taxes
- Proposed dividend

Transfer to reserves (b) Items to be deducted from Net Profit: Such items which do not affect current assets or current liabilities and non-trading incomes and gains will be deducted from the net profit to arrive at funds from operations. Such items are:

- Profit on sale of fixed assets
- Dividend received or receivable
- Interest on investments
- Refund of Tax
- Profit on revaluation of assets
- Increase in value of goodwill and patents
- Transfer from reserves to profit and loss account.

8.12 CALCULATION OF FUNDS FROM OPERATIONS:

Illustration 2 Calculate the Funds from Operation from the following Balance Sheet of Vikas Ltd.Vikas Ltd. Financial Data

Statement of Financial Position

Particulars	**Amount as on 31-03-2020 (Rs.)**	**Amount as on 31-03-2021 (Rs.)**
Profit and Loss A/c	50,000	65,000

Particulars	**Amount as on 31-03-2020 (Rs.)**	**Amount as on 31-03-2021 (Rs.)**
General Reserves	35,000	42,500
Goodwill	15,000	7,500
Preliminary Expenses	9,000	6,000
Provision for Depreciation	15,000	18,000
Provision for Doubtful Debts	617	2,160

Computation of Funds from Operations

Particulars	**Amount in Rs.**
Net Profit as per Profit and Loss A/c	15,000
Add: Non-Funded Items	
General Reserves (42,500 - 35,000)	7,500
Goodwill Written Off (15,000 - 7,500)	7,500
Preliminary Expenses (9,000 - 6,000)	3,000
Provision for Depreciation (18,000 - 15,000)	3,000
Total Non-Funded Items	**21,000**
Total Funds from Operations	**36,000**

Preparation of Sources of funds and Application of funds:

Statement of Sources and Application of Funds :The objective of the Fund Flow statement is to analyze the causes for the net increase or decrease in working capital as shown by the schedule of working capital changes. This statement is prepared on the basis of changes in fixed assets, long-term liabilities, and capital because these are the only items left on the balance sheet after preparing the schedule of working capital changes. This statement has two parts i.e.

(i) Sources of funds; and

(ii) Uses or application of funds.

The difference between these two parts i.e. sources and uses of funds represents net changes in working capital. The amount of net increase or decrease as shown in the fund flow statement should be equal to the amount shown by a schedule of working capital changes.

Statement of Sources and Application of Funds or Sources of Funds Amount Uses of Funds

Sources of Funds	**Amount (Rs.)**	**Uses of Funds**	**Amount (Rs.)**
Funds from operations	…………	Loss from operations	…………
Issue of shares	…………	Redemption of shares	…………
Issue of debentures	…………	Redemption of debentures	…………
Raising long-term loan	…………	Repayment of long-term loan	…………
Sale of fixed assets	…………	Purchase of fixed assets	…………

Decrease in working capital (if any)	…………	Payment of Dividend	…………
		Payment of Taxes	…………
		Increase in working capital	…………

8.13 CALCULATION OF FUNDS FLOW STATEMENT:

To prepare a fund flow statement, sources and applications of funds have to be ascertained. The usual sources of funds and uses of funds are as follows: Funds from Operation: Identify profit after tax but before any appropriation. With that value, add the following values: • Depreciation of fixed assets • Any expenses written-off during the year Fundamentals of Accounting • Loss on sale of fixed assets and investments Deduct the following: • Profit on sale of fixed assets and investments • Profit on revaluation of fixed assets • Non-operating incomes. Fresh issue of Equity shares, issue of debentures, fresh loans from financial institutions, etc. are the next major sources of funds. Sale proceeds of fixed assets and investments are the next source of funds. Non-operating income, which was deducted earlier to compute funds from the operation has to be added at this stage since it is also the source of funds. The above four sources of funds give your gross value of funds generated during the year. From this value deduct the following uses of funds of long term nature. Purchase of fixed assets and investments has to be deducted. Repayment of loan, debentures, and share repurchase are to be deducted. Payment of dividends, income tax, etc., are to be reduced. The difference between the sources and uses of funds calculated above is sources of funds from long-term operations. Find out changes in current assets and current liabilities values of two periods and compute how much net change on working capital. The net changes in working capital will be equal to net changes in long-term sources and uses.

Illustration 3 From the following information, calculate the schedule of change in working capital, funds from operation, and Fund flow statement.

Particulars	**Amount as on 31-03-2020 (Rs.)**	**Amount as on 31-03-2021 (Rs.)**
Liabilities		
Share Capital	1,00,000	1,50,000
Reserves	30,000	30,000
Profit and Loss Account	20,000	22,000
9% Debentures	50,000	50,000
Sundry Creditors	30,000	35,000
Provision for Taxation	5,000	10,000
Total Liabilities	**2,35,000**	**2,97,000**
Assets	**Amount as on 31-03-2020 (Rs.)**	**Amount as on 31-03-2021 (Rs.)**
Land and Building	1,00,000	90,000
Plant and Machinery	80,000	90,000
Stock	20,000	25,000
Sundry Debtors	5,000	7,500
Investments	----	5,000

Cash	15,000	69,500
Goodwill	15,000	10,000
Total Assets	**2,35,000**	**2,97,000**

Schedule of Change in Working Capital

Amount (Rs.)

Particulars	**31-03-2020 (Rs.)**	**31-03-2021 (Rs.)**	**Increase in Working Capital (Rs.)**	**Decrease in Working Capital (Rs.)**
Current Assets				
Stock	20,000	25,000	5,000	
Sundry Debtors	5,000	7,500	2,500	
Cash at Bank	15,000	69,500	54,500	
Total Current Assets (A)	40,000	1,02,000		
Current Liabilities				
Sundry Creditors	30,000	35,000		5,000
Provision for Taxation	5,000	5,000		
Total Current Liabilities (B)	35,000	40,000		5,000
Working Capital (A - B)	52,000	57,000		
Increase in Working Capital	52,000			
	57,000	62,000	57,000	62,000

Calculation of Funds from Operations

Particulars	**Amount in Rs.**
Net Profit as per Profit and Loss A/c	10,000
Add: Non-Funded Items	
Goodwill Written Off (15,000 - 10,000)	5,000
Fund Flow Statement Adjustments	2,000
Other Adjustments	5,000
Total Funds from Operations	**62,000**

Fund Flow Statement

Sources of Funds	**Amount (Rs.)**	**Application of Funds**	**Amount (Rs.)**
Funds from operation	7,000	Purchase of Plant	10,000
Issue of Capital	50,000	Purchase of Investment	5,000
Sale of Building	10,000	Increase in Working Capital	52,000
Total	**67,000**	**Total**	**67,000**

Illustration 4:
From the following data of Prerna Limited, Prepare a Schedule of Changes in Working Capital and Funds flow Statement:

Liabilities	31-03-2020 (Rs.)	31-03-2021 (Rs.)
Share Capital	50,000	50,000
Reserves	7,000	9,000
Profit and Loss Account	8,000	6,500
Sundry Creditors	4,000	2,700
Bills Payables	----	600
Provision for Taxation	8,000	200
Provision for Doubtful Debts	----	600
Total Liabilities	**77,800**	**77,900**

Assets	31-03-2020 (Rs.)	31-03-2021 (Rs.)
Goodwill	6,000	5,000
Building	400	20,000
Plant	9,000	18,500
Investment	300	5,000
Stock	15,000	9,000
Sundry Debtors	9,000	1,000
Bills Receivables	1,000	3,300
Cash at Bank	3,300	77,800
Total Assets	**77,800**	**77,900**

Solution:
Schedule of Change in Working Capital

Particulars	31-03-2020 (Rs.)	31-03-2021 (Rs.)	Increase in Working Capital (Rs.)	Decrease in Working Capital (Rs.)
Current Assets				
Stock	15,000	11,700		3,300
Sundry Debtors	9,000	9,500	500	
Bills Receivables	1,000	2,600	1,600	
Cash and Bank	3,300	7,600	4,300	
Total Current Assets (A)	28,300	31,400		
Current Liabilities				
Sundry Creditors	18,000	18,000		
Bills Payables	5,500	11,700	6,200	
Total Current Liabilities (B)	23,500	28,000		
Working Capital (A - B)	4,800	3,400		1,400

Fund Flow Statement

Sources of Funds	Amount (Rs.)	Application of Funds	Amount (Rs.)
Funds received from business operation	19,000	Purchase of Plant	1,500

		Purchase of Investment	500
		Tax Paid	8,500
		Interim Dividend Paid	4,000
Increase in Working Capital	4,500		
Total	**19,000**	**Total**	**19,000**

Working Notes:
Building Account

Particulars	**Amount (Rs.)**
To Balance B/d	20,000
By Depreciation	2,000
By Balance C/d	18,000
Total	**20,000**

Plant Account

Particulars	**Amount (Rs.)**
To Balance B/d	18,500
To Bank (Purchase of Plant)	1,500
By Depreciation	2,000
By Balance C/d	18,000
Total	

Investment Account

Particulars	**Amount (Rs.)**
To Balance B/d	5,000
To Bank A/c (Balancing Figure)	500
By Balance C/d	5,500
Total	**5,500**

Provision for Taxation Account

Particulars	**Amount (Rs.)**
By Profit and Loss A/c	8,000
To Bank (Balancing Figure)	8,500
To Balance C/d	9,500
Total	**17,500**

8.14 SELF ASSESSMENT QUESTIONS:

1. Define the term ‘Fund’.
2. What is the flow of funds?
3. List out any three sources of funds.
4. What is a Fund s flow statement? Discuss the objectives of preparing a funds flow statement.
5. Describe the importance and limitations of the fund flow statement.
6. How would you compute funds from operations to prepare sources and application statements?
7. “A fund flow statement is a better substitute for an income statement.” Discuss?
8. What is a schedule of change in working capital? What is its usefulness and Fundamentals of Accounting how is it prepared?
9. Define the term ‘Fund’ and give the usual sources and application of funds

8.15 SUGGESTED READINGS:

1. Gupta Sashi K. And Sharma R. K. (2006), Accounting For Managerial Decisions, Kalyani Publishers.
2. Kishore Ravi M. (2006), Cost & Management Accounting, 4th Edition, Taxmann Publications Pvt. Ltd.
3. Mittal S. N. (2013), Accounting For Managerial Decisions, Shree Mahavir Book Depot Publishers.
4. Pasha Mohammed Arif (2007), Accounting For Managers, Vrida Publications (P) Ltd.
5. Peter Atrill Eddi Mc Laney (1997), Accounting Finance for Non Specialists, Prentice Hall.
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LESSON-9
CASH FLOW ANALYSIS

OBJECTIVE:

After studying this unit, you will be able to-

- Define cash flow statement as per AS 3 Cash flow statement
- Differentiate operating, investing and financing activities
- Prepare cash flow statement both by direct and indirect method.

STRUCTURE:

9.1 Introduction

9.2 Uses of cash flow statement

9.3 Difference between fund flow statement and cash flow statement

9.4 Limitations of cash flow statement

9.5 Cash flow statement (As per AS 3)

9.6 Classification of cash flow statement

9.6.1 Operating activities

9.6.2 Investing activities

9.6.3 Financing activities

9.7 Calculation of cash flows from operating activities

9.7.1 Direct method

9.7.2 Indirect method

9.8 Calculation of cash flows from Investing activities

9.9 Calculation of cash flows from Financing activities

9.10 cash flow statement format

9.11 Illustrations

9.12 Self Assessment Questions

9.13 Suggested Readings

9.1 INTRODUCTION:

Information about the cash flows of an enterprise is useful in providing users of financial statements with a basis to assess the ability of the enterprise to generate cash and cash equivalents and the needs of the enterprise to utilize those cash flows. The economic decisions that are taken by users require an evaluation of the ability of an enterprise to generate cash and cash equivalents and the timing and certainty of their generation.

The Standard deals with the provision of information about the historical changes in cash and cash equivalents of an enterprise by means of a cash flow statement which classifies cash flows during the period from operating, investing and financing activities.This statement provides relevant information in assessing a company's liquidity, quality of earnings and solvency.

9.2 USES OF CASH FLOW STATEMENT:

The **cash flow statement** is a crucial financial tool that helps businesses, investors, and stakeholders make informed decisions. Its key uses include:

1. **Assessing Liquidity** – Determines whether a company has enough cash to cover short-term obligations like salaries, rent, and supplier payments.
2. **Evaluating Solvency and Financial Stability** – Indicates whether a company can sustain its operations and meet long-term financial commitments.
3. **Analyzing Cash Inflows and Outflows** – Provides insights into how a company generates and spends cash through **operating, investing, and financing activities**.
4. **Aiding Investment Decisions** – Investors use the cash flow statement to assess a company's ability to generate consistent cash flows, which is essential for profitability and long-term growth.
5. **Supporting Loan and Credit Approvals** – Lenders and creditors examine cash flow statements to determine if a company can repay loans and manage debt effectively.
6. **Monitoring Business Performance** – Helps business owners and management track financial trends, optimize cash management, and identify potential risks.
7. **Facilitating Planning and Budgeting** – Assists in forecasting future cash needs, managing expenditures, and ensuring smooth business operations.
8. **Detecting Financial Issues Early** – Helps identify potential liquidity problems, cash shortages, or inefficient cash management before they become critical.

By analyzing the cash flow statement, businesses can make strategic decisions, ensure financial stability, and maintain operational efficiency.

9.3 DIFFERENCE BETWEEN FUND FLOW STATEMENT AND CASH FLOW STATEMENT:

- **Fund Flow Statement** is useful for analyzing **long-term financial health** and changes in working capital.
- **Cash Flow Statement** is crucial for **short-term liquidity management** and understanding how cash moves in a business.
-

Basis of Comparison	Fund Flow Statement	Cash Flow Statement
Definition	A financial statement that shows the movement of funds (working capital) between two accounting periods.	A financial statement that records the cash inflows and outflows during a specific period.
Focus	Analyzes changes in working capital (current assets – current liabilities).	Focuses only on cash and cash equivalents.
Purpose	Helps understand financial position by tracking sources and uses of funds.	Helps assess liquidity and cash management of a business.

Classification	Divided into **Sources of Funds** and **Uses of Funds**.	Categorized into **Operating, Investing, and Financing Activities**.
Measurement	Measures overall financial position through fund movements.	Measures liquidity by tracking cash movements.
Time Frame	Covers long-term financial planning and changes in financial structure.	Focuses on short-term cash management and operational efficiency.
Example of Use	Used for strategic planning, investment decisions, and financial restructuring.	Used for managing day-to-day cash needs, solvency analysis, and liquidity planning.
Dependency	Requires a balance sheet comparison of two periods.	Prepared using cash transactions recorded in the financial period.

9.4 LIMITATIONS OF CASH FLOW STATEMENT:

While the **cash flow statement** is an essential financial tool, it has some limitations:
1. **Does Not Reflect Profitability** – The statement only shows cash movements and does not indicate whether a company is making a profit or incurring losses.
2. **Ignores Non-Cash Transactions** – Non-cash items like depreciation, amortization, and stock-based compensation are not included, which can lead to an incomplete financial picture.
3. **Not a Substitute for Income Statement or Balance Sheet** – The cash flow statement provides liquidity insights but does not show overall financial performance or position comprehensively.
4. **Historical in Nature** – It presents past cash flows and does not necessarily predict future performance or solvency.
5. **Possible Misinterpretation** – A positive cash flow does not always mean profitability, as a company could have borrowed heavily or sold assets.
6. **Limited Scope in Decision-Making** – Since it only focuses on cash transactions, it may not provide sufficient information for strategic long-term decisions.
7. **Does Not Account for Working Capital Changes** – It does not directly highlight changes in key working capital components like receivables and payables unless analyzed separately.

Despite these limitations, the cash flow statement remains an important tool for assessing a company’s liquidity and cash management efficiency.

9.5 CASH FLOW STATEMENT (As per AS 3):

In June 1981, the Institute of Chartered Accountants of India issued Accounting Standard 3: Changes in Financial position. This accounting standard dealt with the financial statement that summarized, for the period covered by it, the changes in financial position showing the sources from which funds were obtained by the enterprise and the specific uses to which funds were applied. Funds were defined as cash or cash equivalents or working capital, that is, current assets minus current liabilities. But the flow statements suffered from certain limitations. A Funds Flow Statement showed flows of working capital which included items, like stock of goods and prepaid expenses which did not contribute to the short term ability of the enterprise to pay its debts. Flows were not classified under the heads of operating, financial and investing activities. There was no standard format of the statement. There was the need of a Cash Flow Statement in a standard format classifying flows from different activities. In June 1995 the Securities and Exchange Board of India (SEBI) amended clause 32 of the Listing Agreement requiring every listed company to give prescribed format, showing separately cash flows from operating activities, investing activities and financing activities. In March 1997 the Institute of Chartered Accountants of India issued AS-3 (Revised); Cash Flow Statement. The revised accounting standard supersedes AS-3: Changes in Financial Position, issued in June 1981. Cash Flow Statement has replaced Statement of Changes in Financial Position.

Meaning of Cash Flow Statement

Cash Flow Statement reports the inflows and outflows of cash and its equivalents of an organization during a particular period. It reports the cash receipts and payments classified according to the firm's major activities - Operating, Investing and Financing. It shows the net cash inflow or net cash outflow for each activity and for the overall business of the firm. It reports from where cash has come and how it has been utilised. It explains the causes for the change in the cash balance by reconciling the opening balance of the period with the closing balance.

Objectives

Information about the cash flows of an enterprise is useful in providing users of financial statements with a basis to assess the ability of the enterprise to generate cash and cash equivalents and the needs of the enterprise to utilize these cash flows. The economic decisions that are taken by users require an evaluation of the ability of an enterprise to generate cash and cash equivalents and the timing and certainty of their generation.The statement deals with the provision of information about the historical changes in cash and cash equivalents of an enterprise by means of a cash flow statement which classifies cash flows during the period from operating, investing and financial activities.

Scope

An enterprise should prepare a cash flow statement and should present it for each period for which financial statements are presented.Users of an enterprise's financial statements are interested in how the enterprise generates and uses and cash and cash equivalents. This is the case regardless of the nature of the enterprise's activities and irrespective of whether cash can be viewed as the product of the enterprise, as may be the case with a financial enterprise. Enterprises need cash for essentially the same reasons, however, different from their principal revenue - producing activities might be. They need cash to conduct their operations, to pay their obligations, and to provide returns to their investors.

Benefits of CFS

Cash Flow Statement has the following benefits, in brief:

1. It is an indicator for the cash flows in the future period. It helps the management in forecasting the future needs and plans.
2. 2. It is an important tool as it helps in efficient management of cash.

3. The cash flow analysis on the basis of major activities i.e. Operating, Investing and Financial, facilitate the management to assess the effectiveness of management's financial policies.
4. It reveals the liquidity position of the firm.
5. It provides a better measure for inter period and inter firm comparison.
6. It is very useful in evaluating financial policies and cash position.
7. It highlights the trend of the movement of cash.
8. It enhances the comparability of the reporting of operating performance by different enterprises because it eliminates the effects of using different accounting treatments for the same transactions and events.
9. Cash flow information is useful in assessing the ability of the enterprise to generate cash and cash equivalents and enable the users to develop models to assess and compare the present value of the future cash flows of different enterprises.

Definition

Cash Flow Statement is a statement which shows inflows and outflows of cash and its equivalent in an enterprise during a specified period of time. An enterprise prepares Cash Flow Statement, according to the Revised Accounting Standard-3, and present it for each period for which financial statements are presented.

The following terms are used in this Statement with the meanings specified:

a) CASH comprises on hand and demand deposits with banks.
b) CASH EQUIVALENTS are short term, highly liquid investments that are readily convertible into known amounts of cash and which are subject to an insignificant risk of changes in value.
c) CASH FLOWS are inflows and outflows of cash and cash equivalents.

9.6 CLASSIFICATION OF CASH FLOW STATEMENT:

AS 3 provides explanation for changes in cash position of the business entity. As per Accounting Standard 3, cash flows during the period are classified as Operating; Investing and Financing activities.

9.6.1 Operating Activities

a) **Definition**: These are the principal revenue generating activities of the enterprise.
b) **Net Impact**: Net impact of operating activities on flow of cash is reported as 'Cash flows from operating activities' or 'cash from operation'.
c) **Key Indicator**: The amount of cash flows from operating activities is a key indicator of the extent to which the operations of the enterprises have generated sufficient cash flows to:
   a. Maintain the operating capability of the enterprise,
   b. Pay dividends, repay loans, and
   c. Make new investments without recourse to external sources of financing.
d) **InformationProvided**: It provides useful information about financing through working capital.
e) **Benefits:** Information about the specific components of historical operating cash flows is useful, in conjunction with other information, in forecasting future operating cash flows.

9.6.2 Investing activities

a) Definition: These are the acquisition and disposal of long-term assets and other investments not included in cash equivalents.

b) Separate Disclosure: Separate disclosure of cash flows arising from investing activities is important because the cash flows represent the extent to which the expenditures have been made for resources intended to generate future incomes and cash flows.

9.6.3 Financing Activities

a) Definition: These are the activities that result in changes in the size and composition of the owner's capital (including preference share capital) and borrowings of the enterprise.

b) Separate Disclosure: The separate disclosure of cash flows arising from financing activities is important because it is useful in predicting claims on future cash flows by providers of funds (both capital and borrowings) to the enterprise.

9.7 CALCULATION OF CASH FLOWS FROM OPERATING ACTIVITIES:

a) Components: Cash flows from operating activities result from the transactions and other events that enter into the determination of net profit or loss.

Examples:

(a) cash receipts from the sale of goods and the rendering of services;
(b) cash receipt from fees, commission and other revenue;
(c) cash payments to suppliers for goods; cash payments to employees and so on.

b) Methods: An enterprise can determine cash flows from operating activities using either:

1. Direct Method
2. Indirect Method

1. Direct Method: The direct method, whereby major classes of gross cash receipts and gross cash payments are considered; or

2. Indirect Method: The indirect method, whereby net profit or loss is adjusted for the effects of transactions of a non-cash nature, deferrals or accruals of past or future operating cash receipts or payments, and items of income or expense associated with investing or financing activities.

9.7.1 Direct Method

1. Information Required

(a) Gross receipts and gross cash payments may be obtained from the accounting records to ascertain cash flows from operating activities.

(b) For example,
(i) Information about cash received from trade receivables,
(ii) Payment to trade payables, cash expenses etc., which may be obtained by an analysis of cash book.

(c) In actual practice, the relevant information is obtained by adjusting sales, cost of sales and other items in the profit and loss accounts for:

- Changes during the period in inventories and operating receivables and payables;
- Other non-cash items such as depreciation on fixed assets, goodwill written off, preliminary expenses written off, loss or gain on sale of fixed assets etc.; and

- Other items for which the cash effects are investing or financing cash flows. Examples are interest received and paid, dividend received and paid etc., which are related to financing or investing activities and are shown separately in the cash flow statement.

2. The direct method provides information which may be useful in estimating future cash flows and which is not available under the indirect method and is, therefore, considered more appropriate than the indirect method.
3. However, indirect method of determining the cash from operating activities is more popular in actual practice.

9.7.2 Indirect Method

Under the indirect method, the net cash from operating activities is determined by adjusting net profit or loss instead of individual items appearing in the profit and loss account. Net profit or loss is also adjusted for the effect of:
(a) Changes during the period in inventories and operating receivables and payables;
(b) Non-cash items such as depreciation; and
(c) All other items for which the cash effects are financing or investing cash flows.

9.8 CALCULATION OF CASH FLOWS FROM INVESTING ACTIVITIES:

1. These activities are related to the acquisition and disposal of long-term assets, non-operating current assets and investments which results in outflow of cash.
2. Disposal of the aforesaid assets results in inflow of cash.
3. Thus, inflows and outflows related to acquisition and disposal of assets, other than those related to operating activities, are shown under this category

9.9 CALCULATION OF CASH FLOWS FROM FINANCING ACTIVITIES:

1. These activities are basically related to the changes in capital and borrowing of the enterprise which affect flow of cash.
2. Redemption of shares and repayment of borrowings results in outflow of cash.
3. Thus inflows and outflows related to the amount of capital and borrowings of the enterprise are shown under this head.

9.10 CASH FLOW STATEMENT FORMAT:

The two methods which are used for the preparation of a cash flow statement are listed below:
1. Direct Method
2. Indirect Method

Direct Method

Cash Flow Statement

	Particulars	Amount Rs	Amount Rs
A.	**Cash Flow from Operating Activities**		
	Cash Sales	**	
	Cash receipt from Debtors	**	
	Less: Cash Purchases	**	
	Cash paid to creditors and other expenses	**	
	Cash Generated from Operating Activities	**	
	Less: Income Tax Paid	**	
	Cash flow before Extraordinary Items	**	
	Add/Less: Extraordinary Items	**	
	Net Cash Flow from (used in) Operating Activities	**	**
B.	**Cash Flow from Investing Activities**	**	
	Sale of Fixed Assets	**	
	Sale of long-term Investments	**	
	Interest Received	**	
	Dividend Received	**	
	Rent Received	**	
	Less: Purchase of Fixed Assets	**	
	Less: Purchase of long-term Investment	**	
	Net Cash Flow from Investing Activities	**	**
C.	**Cash Flow from Financing Activities**		
	Proceeds from Issue of Shares	**	
	Proceeds from Issue of Debentures and Other Long-term Borrowings	**	
	Less: Repayment of Debentures and Other Long-term Borrowings	**	
	Less: Redemption of Preference Shares	**	
	Less: Interest Paid	**	
	Less: Dividend Paid	**	
	Net Cash flow from Financing Activities	**	**
	Net Increase (or Decrease in Cash and Cash Equivalents (A+B+C)		**
	Cash and Cash Equivalents at the beginning (Cash in Hand, Cash at Bank, Marketable Securities, Short-term Deposits)		**
	Cash and Cash Equivalent at the end		**

Indirect method

	particulars	Amount Rs.	Amount Rs.
A	**Cash Flow from Operating Activities:** Net Profit before tax and extraordinary items **Add**: Non-Cash Expenses and non operating expenses.		 XXX

	Depreciation	XXX	
	Goodwill	XXX	
	Interest paid	XXX	
	Loss on sale of fixed assets	XXX	XXX
	Less: Non-Operating Incomes.		
	Dividend received	XXX	
	Profit on sale of fixed assets	XXX	
	Interest received	XXX	
	Operating Profit before Working Capital Changes		XXX
	Add: Decrease in Current Assets	XXX	
	Increase in Current Liabilities	XXX	
	Less: Increase in Current Assets	XXX	
	Decrease in Current Liabilities		
	Cash generated from Operating Activities		XXX
	Less: Income tax paid		XXX
	Cash flow before Extra ordinary items		XXX
	Add/Less: Extra ordinary items		XXX
	Net Cash Flow from Operating Activities		XXX
B	**Cash Flow from Investing Activities**		
	Sale of Fixed Assets	XXX	
	Sale of Long-term Investments	XXX	
	Interest Received	XXX	
	Dividend Received	XXX	
	Rent Received	XXX	
	Less: Purchase of Fixed Assets	XXX	
	Less: Purchase of long term Investment	XXX	
	Net Cash Flow from Investing Activities		XXX
C	**Cash Flow from Financing Activities**		

	Proceeds from Issue of shares	XXX	
	Proceeds from Issue of Debentures and other Long-term	XXX	
	Borrowings	XXX	
	Less: Repayment of Debentures and other Long-term	XXX	
	Borrowings	XXX	
	Less: Redemption of preference Share	XXX	
	Less :Interest paid	XXX	
	Less: Dividend paid		
			XXX
	Net Cash Flow from Financing Activities		
	Net Increase (or Decrease in Cash and Cash Equivalents (A+B+C)		XXX
			XXX
	Cash and Cash Equivalents at the beginning of the year		
			XXX
	Cash and Cash Equivalents at the end of the year		

9.11 ILLUSTRATIONS:

Prepare cash flow statement of M/s MNT Ltd. for the year ended 31st March, 20X1 with the help of the following information:

(1) Company sold goods for cash only.
(2 Gross Profit Ratio was 30% for the year, gross profit amounts to 3,82,500.
(3) Opening inventory was lesser than closing inventory by 35,000.
(4) Wages paid during the year 4,92,500.
(5) Office and selling expenses paid during the year 75,000.
(6) Dividend paid during the year 30,000 (including dividend distribution tax.)
(7) Bank loan repaid during the year 2,15,000 (included interest 15,000)
(8) Trade payables on 31st March, 20X0 exceed the balance on 31st March, 20X1 by 25,000.
(9) Amount paid to trade payables during the year 4,60,000.
(10) Taxpaid during the year amounts to 65,000 (Provision for taxation as on 31.03.20X1 45,000).
(11) Investments of 7,00,000 sold during the year at a profit of 20,000.
(12) Depreciation on fixed assets amounts to 85,000.
(13) Plant and machinery purchased on 15th November, 20X0 for 2,50,000.
(14) Cash and Cash Equivalents on 31st March, 20X0 2,00,000.
(15) Cash and Cash Equivalents on 31st March, 20X1 6,07,500.

SOLUTION:

M/s MNT Ltd.
Cash Flow Statement for the year ended 31st March, 20X1
(Using direct method)

Particulars	Amount Rs	Amount Rs
Cash flows from Operating Activities		
Cash sales (3,82,500/.30)		12,75,000
Less: Cash payments for trade payables	(4,60,000)	
Wages Paid	(4,92,500)	
Office and selling expenses	(75,000)	(10,27,500)
Cash generated from operations before taxes		2,47,500
Income tax paid		(65,000)
Net cash generated from operating activities (A)		1,82,500
Cash flows from investing activities		
Sale of investments (7,00,000 + 20,000)	7,20,000	
Payments for purchase of Plant & machinery	(2,50,000)	
Net cash used in investing activities (B)		4,70,000
Cash flows from financing activities		
Bank loan repayment(including interest)	(2,15,000)	
Dividend paid(including dividend distribution tax)	(30,000)	
Net cash used in financing activities (C)		(2,45,000)
Net increase in cash (A+B+C)		4,07,500
Cash and cash equivalents at beginning of the period		200000
Cash and cash equivalents at end of the period		6,07,500

Illustration 2: The following data were provided by the accounting records of Ryan Ltd. at year-end, March 31, 20X1:

Income Statement

Particulars		**Rs.**
Sales		6,98,000
Cost of Goods Sold		(5,20,000)
Gross Margin		1,78,000
Operating Expenses (including Depreciation Expense of 37,000)		(1,47,000)
		31,000

Other Income / (Expenses)	(23,000)	
Interest Expense paid	6,000	
Interest Income received	12,000	
Gain on Sale of Investments	(3,000)	
Loss on Sale of Plant		(8,000)
		23,000
		(7,000)
Income tax		16,000

Comparative balance sheets

Particulars	31st march 20X1	31st march 20X0
Assets		
Plant Assets	7,15,000	5,05,000
Less: Accumulated Depreciation	(1,03,000)	(68,000)
	6,12,000	4,37,000
Investments (Long term)	1,15,000	1,27,000
Current Assets:		
Inventory	1,44,000	1,10,000
Accounts receivable	47,000	55,000
Cash	46,000	15,000
Prepaid expenses	1,000	5,000
	9,65,000	7,49,000
Liabilities		
Share Capital	4,65,000	3,15,000
Reserves and surplus	1,40,000	1,32,000
Bonds	2,95,000	2,45,000
Current liabilities:		
Accounts payable	2,45,000	43,000
Accrued liabilities	12,000	9,000
Income taxes payable	3,000	5,000
	9,65,000	7,49,000

Analysis of selected accounts and transactions during 20X0-X1

1. Purchased investments for 78,000.
2. Sold investments for ₹1,02,000. These investments cost ₹90,000.
3. Purchased plant assets for ₹1,20,000.
4. Sold plant assets that cost 10,000 with accumulated depreciation of 2,000 for ₹ 5,000.
5. Issued 1,00,000 of bonds at face value in an exchange for plant assets on 31st March, 20X1.
6. Repaid 50,000 of bonds at face value at maturity.
7. Issued 15,000 shares of 10 each.
8. Paid cash dividends 8,000.

Prepare Cash Flow Statement as per AS-3 (Revised), using indirect method.

Solution

Ryan Ltd.

Cash Flow Statement for the year ending 31st March, 20X1

Particulars	₹	₹
Cash flows from operating activities		
Net profit before taxation	23,000	
Adjustments for:		
Depreciation	37,000	
Gain on sale of investments	(12,000)	
Loss on sale of plant assets	3,000	
Interest expense	23,000	
Interest income	(6.000)	
Operating profit before working capital changes	68,000	
Decrease in accounts receivable	8,000	
Increase in inventory	(34,000)	
Decrease in prepaid expenses	4,000	
Increase in accounts payable	7,000	
Increase in accrued liabilities	3,000	
Cash generated from operations	56,000	
Income taxes paid*	(9,000)	
Net cash generated from operating activities		47,000
Cash flows from investing activities		
Purchase of plant	(1,20,000)	
Sale of plant	5,000	
Purchase of investments	(78,000)	
Sale of investments	1,02,000	
Interest received	6,000	
Net cash used in investing activities		(85,000)
Cash flows from financing activities		
Proceeds from issuance of share capital	1,50,000	
Repayment of bonds	(50,000)	
Interest paid	(23,000)	
Dividends paid	(8,000)	
Net cash from financing activities		69,000
Net increase in cash and cash equivalents		31,000
Cash and cash equivalents at the beginning of the period		15,000
Cash and cash equivalents at the end of the period		46,000

***Workingnotes**:

	₹
Income taxes paid:	
Income tax expense for the year	7,000
Add: Income tax liability at the beginning of the year	5,000
	12,000
Less: Income tax liability at the end of the year	(3,000)
9,000	

9.12 SELF ASSESSMENT QUESTIONS:

1. What is cash flow statement?
2. What are the objects of cash flow statement?
3. What is the purpose of preparing cash flow statement?
4. What are the advantages of cash flow statement?
5. Explain the classification of cash flow statement
6. What are the uses and limitations of cash flow statement?
7. What is meant by cash flow statement? How does it differ from funds flow statement?

9.13 SUGGESTED READINGS:

1. Management Accounting – Dr. K.L.Gupta, sahitya bhawan Publications
2. Management accounting- R.S.N.Pillai , Bhagavathi , S CHAND Publications

Dr.S.Srinivasa Rao

LESSON- 10
MARGINAL COSTING

OBJECTIVES:

After studying marginal costing, learners should be able to:
1. Understand the Concept of Marginal Costing
2. Calculate Marginal Cost and Contribution
3. Make Short-term Decision-Making Using Marginal Costing

STRUCTURE:

10.1 INTRODUCTION:

Marginal costing is a cost accounting technique that considers only variable costs as product costs while treating fixed costs as period costs, which are charged directly to the profit and loss account. It is primarily used for short-term decision-making, as it helps in analyzing cost behavior, profit planning, and optimizing the contribution margin. By focusing on the contribution per unit (i.e., sales revenue minus variable costs), marginal costing aids in determining the break-even point, assessing the profitability of different products, and making decisions such as pricing, make-or-buy, and special order acceptance. This technique is widely used in managerial accounting to enhance cost control and profit maximization.

10.2 DEFINITION OF MARGINAL COST AND MARGINAL COSTING:

Marginal cost refers to the additional cost incurred to produce one more unit of a product or service. The change in total cost results from making an extra unit and includes only the variable costs (such as raw materials, labor, and other costs that change with production volume). Marginal costs do not include fixed costs, as these remain constant regardless of the number of units produced.

Marginal costing is a cost accounting technique where only variable costs (direct materials, direct labor, and variable overheads) are considered when calculating the cost of production. In this method, fixed costs are treated as period costs and are not allocated to the cost of producing individual units. Marginal costing is used primarily for decision-making purposes, such as pricing, product selection, and profitability analysis.In marginal costing, the focus is on the contribution margin, which is the amount left from sales after covering the variable costs that contribute to covering fixed costs and generating profit.

10.3 BASIC CHARACTERISTICS OF MARGINAL COSTING:

1. **Variable Costs are Included:**
   - Only variable costs (direct materials, direct labor, and variable overheads) are considered when calculating the cost of a product.
   - Fixed costs are not allocated to individual units of production.
2. **Fixed Costs are Treated as Period Costs:**
   - Fixed costs (such as rent, salaries, and insurance) are treated as period costs and are charged against the revenue of the period in which they are incurred.
   - They are not allocated to individual units of production.
3. **Contribution Margin Focus:**
   - The contribution margin (sales revenue minus variable costs) is a key focus of marginal costing.
   - This margin is used to cover fixed costs and contribute to profits.
4. **Profitability Depends on Contribution:**
   - Profit is determined by subtracting fixed costs from the total contribution (total sales minus total variable costs).
   - The more units sold, the more contribution is generated to cover fixed costs and generate profit.
5. **Cost Behavior Analysis:**
   - Marginal costing helps analyze cost behavior by distinguishing between variable and fixed costs.
   - It provides insight into how costs will change with different levels of production or sales.
6. **Break-even Analysis:**
   - Marginal costing is used to calculate the break-even point (the point at which total revenue equals total costs).
   - It helps determine the sales volume needed to cover both variable and fixed costs.
7. **Decision-Making Tool:**
   - It is used for various business decisions, such as pricing, make-or-buy decisions, product selection, and optimization of resource usage.
   - It helps businesses assess how changes in production levels impact profitability.
8. **Simplified Costing System:**
   - Marginal costing simplifies cost allocation by only considering the variable costs, making it easier to understand and apply compared to more complex costing methods like absorption costing.

In summary, marginal costing emphasizes the importance of variable costs in determining the cost of producing additional units and assists managers in making key financial decisions based on the contribution margin and break-even analysis.

10.4 ASSUMPTIONS OF MARGINAL COSTING:

a. All elements of cost—production, administration and selling and distribution—can be segregated into fixed and variable components.
b. Variable cost remains constant per unit of output irrespective of the level of output and thus fluctuates directly in proportion to changes in the volume of output.
c. The selling price per unit remains unchanged or constant at all levels of activity.
d. Fixed costs remain unchanged or constant for the entire volume of production.
e. The volume of production or output is the only factor that influences the costs.

10.5 MARGINAL COSTING VS. DIRECT/ DIFFERENTIAL / VARIABLE COSTING:

Marginal Costing: It is a costing system where products or services and inventories are valued at variable costs only. It does not take consideration of fixed costs. This system of costing is also known as direct costing as only direct costs forms the part of product and inventory cost. Costs are classified on the basis of behavior of cost (i.e. fixed and variable) rather functions as done in absorption costing method.

Direct Costing: Direct costing and Marginal Costing is used synonymously at various places. But the relation of costs with respect to activity level must be understood. Some costs are variable at batch level but fixed for unit level whereas others are variable at production line level but fixed for batches and units.

Differential and Incremental Cost: Differential cost is difference between the costs of two different production levels. It is a relative representation of costs for two different levels that results in the increase or decrease in cost. Incremental cost, on the other hand, is the increase in the costs due to change in the volume or process of production activities. Incremental costs are sometime compared with marginal cost but in reality, there is a thin line difference between the two. Marginal cost is the change in the total cost due to production of one extra unit while incremental cost can be both for increase in one unit or in total volume.

10.6 MARGINAL COSTING VS. ABSORPTION COSTING:

- Marginal Costing: Also known as variable costing, marginal costing considers only the variable costs as production costs. The fixed costs are treated as period costs and are directly charged to the profit and loss account for the period.
- Absorption Costing: On the other hand, absorption costing, also known as full costing, considers both variable and fixed production costs in costing products. It 'absorbs' all costs related to the production of a specific product.

Differences Between Marginal Costing And Absorption Costing

Understanding the difference between marginal costing and absorption costing helps in choosing the most appropriate costing method for your business. The following are the top 10 key differences:

Aspects	Marginal Costing	Absorption Costing
Cost Components	Consider only variable costs.	Consider both variable and fixed costs.

Profit Calculation	Fluctuates with sales volume changes.	More stable as it includes fixed costs.
Stock Valuation	Lower, as only variable costs are considered.	Higher, as it includes both variable and fixed costs.
Cost Control	Easier, as costs are closely tied to output.	More challenging, as fixed costs are included.
Cost Apportionment	No apportionment is required.	Requires apportionment of fixed costs.
Decision Making	More useful for short-term decisions.	Better suited for long-term pricing strategies.
Break-even Point	Easier to calculate.	Complex due to fixed costs consideration.
Effect on Competitive Pricing	High pricing is based on variable costs.	Low, as pricing also includes fixed costs.
Impact on Profit	Profit changes with sales level.	Profit is stable until production exceeds sales.
Reporting Standards	Not following GAAP or IFRS.	In line with GAAP and IFRS.

10.7 ADVANTAGES AND LIMITATIONS OF MARGINAL COSTING:

The following are the advantages of the marginal costing technique:

1. **Simplicity:** The statement propounded under marginal costing can be easily followed as it breaks up the cost as variable and fixed.
2. **Stock Valuation:** A stock valuation can be easily done and understood as it includes only the variable cost.
3. **Meaningful Reporting:** Marginal costing serves as a good basis for reporting to management. The profits are analyzed from the point of view of sales rather than production.
4. **Effect on Fixed Cost:** The fixed costs are treated as period costs and are charged to the Profit and Loss Account directly. Thus, they have practically no effect on decision making.
5. **Profit Planning:** The Cost – Volume Profit relationship is perfectly analysed to reveal efficiency of products, processes, and departments. Break–even Point and Margin of Safety are the two important concepts helpful in profit planning.
6. **Cost Control and Cost Reduction:** Marginal costing technique is helpful in preparation of flexible budgets as the costs are classified into fixed and variable. The emphasis is laid on variable cost for control. The constant focus is on cost and volume and their effect on profit pave the way for cost reduction.
7. **Pricing Policy:** Marginal costing is immensely helpful in determination of selling prices under different situations like recession, depression, introduction of new product, etc. Correct pricing can be developed under the marginal costs technique with the help of the cost information revealed therein.

8. **Helpful to Management:** Marginal costing is helpful to the management in exercising decisions regarding make or buy, exporting, key factor and numerous other aspects of business operations.

Limitations of Marginal Costing:

The following are the limitations of marginal costing

1. **Classification of Cost:** Break up of cost into fixed and variable portion is a difficult problem. More over clear cost division of semi – variable or semi – fixed cost is complicated and cannot be accurate.
2. **Not Suitable for External Reporting:** Since fixed cost is not included in total cost, full cost is not available to outsiders to judge the efficiency.
3. **Lack of Long–term Perspective:** Marginal costing is most suitable for decision making in a short term. It assumes that costs are classified into fixed and variable. In the long term all the cost are variable. Therefore it ignores time element and is not suitable for long term decisions.
4. **Under Valuation of Stock:** Under marginal costing, only variable costs are considered and the output as well as stock are undervalued and profit is distorted. When there is a loss of stock the insurance cover will not meet the total cost.
5. **Automation:** In these days of automation and technical advancement, huge investments are made in heavy machinery which results in heavy amount of fixed costs. Ignoring fixed cost in this context for decision making is irrational.
6. **Production Aspect is Ignored:** Marginal costing lays too much emphasis on selling function and as such production aspect has been considered to be less significant. But from the business point of view, both the functions are equally important.
7. **Not Applicable in all Types of Business:** In contract type and job order type of businesses, full cost of the job or the contract is to be charged. Therefore it is difficult to apply marginal costing in all these types of businesses.
8. **Misleading Picture:** Each product is shown at variable cost alone, thus giving a misleading picture of its cost.
9. **Less Scope for Long–term Policy Decision:** Since cost, volume, and profits are interlinked in price determination, which can be changed constantly, the development of a long-term pricing policy is not possible.

10.8 DETERMINATION OF COST AND PROFIT UNDER MARGINAL COSTING:

Marginal costing is a technique that classifies costs into **product costs** (variable costs) and **period costs** (fixed costs) to determine **contribution** and **profit**. Unlike absorption costing, marginal costing does not allocate fixed costs to products; instead, they are treated as period costs and charged directly to the profit and loss account. The key elements in determining cost and profit under marginal costing are:

1. Product Cost (Variable Cost): Product cost in marginal costing includes only variable **costs**, which change with the level of production or sales. These costs are directly attributable to the production of goods or services and include:

- Direct material
- Direct labor
- Variable manufacturing overhead
- Variable selling and distribution expenses

Formula: Product Cost per Unit=Total Variable Cost ÷ Number of Units Produced

2. Contribution: Contribution is the excess of sales over variable costs and is a key indicator of profitability. It helps in covering fixed costs and generating profit.
Formula: Contribution=Sales Revenue−Total Variable Cost OR
Contribution per Unit=Selling Price per Unit−Variable Cost per Unit

- If **contribution** is greater than fixed costs, the business makes a profit.
- If **contribution** equals fixed costs, the business reaches the break-even point.
- If **contribution** is less than fixed costs, the business incurs a loss.

3. Period Cost (Fixed Cost): Period costs include **fixed costs**, which remain constant regardless of production or sales volume. These costs are not assigned to products but are instead charged to the profit and loss account in the period they occur. Examples include:

- Fixed manufacturing overhead
- Fixed selling and administrative expenses
- Rent, salaries, insurance, and depreciation

Formula: Total Period Cost=Total Fixed Costs

4. Calculation of Profit: Once **contribution** is determined, profit is calculated by deducting fixed costs: **Profit=Contribution−Fixed Costs**
If the contribution exceeds fixed costs, the company earns a profit; otherwise, it incurs a loss.

10.9 MARGINAL COST EQUATION:

The contribution theory explains the relationship between the variable cost and selling price. It tells us that selling price minus variable cost of the units sold is the contribution towards fixed expenses and profit. If the contribution is equal to fixed expenses, there will be no profit or loss and if it is less than fixed expenses, loss is incurred. Since the variable cost varies in direct proportion to output, therefore if the firm does not produce any unit, the loss will be there to the extent of fixed expenses. These points can be described with the help of following marginal cost equation:

Marginal Cost Equation= S – V = C =F +/- P

Where as, S=Selling price per unit; V=Variable cost per unit; C= Contribution; F= Fixed cost

10.10 PROFIT/ VOLUME RATIO:

This ratio shows the proportion of sales available to cover fixed costs and profit. Contribution represent the sales revenue after deducting variable costs. This ratio is usually expressed in percentage. **Formula: P / V Ratio= Contribution/ Sales×100**OR,
P/V Ratio = Change in contribution or Profit / Change in sales×100

A higher contribution to sales ratio implies that the rate of growth of contribution is faster than that of sales. This is because, once the breakeven point is reached, profits shall grow at a faster rate when compared to a product with a lesser contribution to sales ratio.
By transposition, we have derived the following equations:

(i) C = S × P/V ratio
(ii) S = C / P/VRatio

10.11 MANAGERIAL APPLICATIONS OF MARGINAL COSTING (DECISIONS INVOLVING ALTERNATIVE CHOICES):

Marginal costing technique is valuable aid to management in taking many managerial decisions. It is a useful tool for making policy decisions, profit planning and cost control. The information supplied by the total cost method is usually not sufficient to solve managerial problems. The following are some of the important managerial problems where marginal costing technique can be applied.

1. Pricing decisions: Fixing selling prices is one of the most essential functions of management. Although prices are generally determined by market conditions and other economic factors yet marginal costing technique assists the management in the fixation of selling prices under various circumstances as:

(a) Pricing under normal conditions
(b) During stiff competition
(c) During trade depression
(d) For accepting special bulk orders
(e) For accepting additional orders utilizing idle capacity.
(f) For accepting export orders and exploring new markets.

(a) Pricing under Normal Conditions: Under normal circumstances, the prices are based upon total cost of sales to cover both fixed as well as variable costs and in addition to provide for certain desired margin of profit. But prices can also be fixed based on marginal cost by adding a sufficiently high margin to marginal (variable) cost to cover the fixed cost and profits.

However, under other circumstances, products may have to be sold at a price below the total cost. For example, in the days of stiff competition or to meet the situation arising due to trade depression, for accepting special bulk or additional orders for utilizing idle capacity; for exporting and exploring new markets, etc.
The products may have to be sold at a price below the total cost based on absorption costing. In such circumstances, the prices should be fixed based on marginal cost (and total cost) in such a manner as to cover the marginal cost and contribute something towards the fixed expenses. Sometimes it may become necessary to reduce the selling prices to the level of marginal cost or even below the marginal cost.

(b) Selling Price below the Marginal Cost: The selling prices of products may be fixed even below the marginal cost in the following circumstances
(i) To introduce a new product in the market.
(ii) To popularise a particular product.
(iii) To explore foreign markets.
(iv)To eliminate the competitor from the market.
(v) To help the sale of joint products.
(vi)To avoid the retrenchment of workers.
(vii) To dispose of a product of a perishable nature.
(viii) To utilize idle capacity.
(ix) To keep plant and machinery in the running conditions.
(x) To retain old customers and prevent loss of future orders.
(xi) To avoid extra losses by closing down the business.
(xii) To dispose of surplus stocks.

(c) Pricing during Stiff Competition and Trade Depression: During stiff competition, produces may have to be sold at a price below the total cost. In such circumstances, the price should be fixed based on the marginal cost in such a manner as to cover the marginal (variable) cost and contribute something towards the fixed expenses. Sometimes, to eliminate the weaker competitors from the market, the price may be fixed even below the marginal cost. During the depression also products may be sold at a price below the total cost. There is a fall in the price as a result of depression. The prices can be safely reduced to an extent that covers the variable cost and contributes something towards the fixed cost. This is so because fixed expenses will be incurred even if the product is discontinued during the depression for a short period. In case the product can be sold at something above the marginal cost, the total loss on account of fixed expenses shall reduce as sales will recover some of the fixed expenses. Suppose there is a serious but temporary fall in the demand for the product. In that case, the minimum price that can be fixed is the marginal cost because selling below the marginal cost would mean more losses than the losses on closing down the business. Hence, if the product can be sold at a price equal to or more than the marginal cost, the business should be continued under such circumstances.

This has been made clear with the help of the following example:
Suppose, the marginal cost of a product is Rs. 5/- per unit and fixed expenses amount to Rs. 1,00,000. The selling price per unit is Rs. 6/- and 50,000 units can be sold at this price.

	₹
Marginal cost of 50,000 units @ ₹ 5 per unit	2,50,000
Fixed Expenses	1,00,000
Total Cost	3,50,000

Cost per unit = 3,50,000/50,000 = Rs. 7
The selling price of Rs. 6/- per unit is below the total cost of Rs. 7/- per unit, yet it is advantageous to sell the products at Rs. 6/- per unit as it is more than the marginal costs.

	₹
Sales value of 50,000 units @ ₹ 6/- per unit	3,00,000
Less : Total cost, calculated above	3,50,000
Loss	50,000
Loss due to fixed expenses, if product is discontinued	1,00,000
Loss reduced if the product is continued (1,00,000–50,000)	50,000

Accepting Special orders, Bulk orders, additional orders, export orders, and exploring new markets:
Bulk orders, additional orders, and orders from foreign or new markets may be accepted at a price below the normal market price utilizing the idle capacity. Such orders are received usually asking for a price below the market price and hence a decision is to be taken to accept or reject the order.

The order may be accepted at any price above the marginal cost because the fixed costs have to be incurred even otherwise. Any contribution resulting from the additional-sales would mean an additional profit. But care must be taken to see that accepting an order below the market price does not affect the normal selling price adversely.

For example, an order from a local merchant should not be accepted at a price below the normal market price because it will affect the relationships with other customers buying at a normal price. But, if it is a foreign order, it may be accepted at a price below the normal price keeping in view the additional costs of exporting, if any and direct and indirect benefits of exporting such as, goodwill, subsidies, quotas, etc.

Illustration 1: The Everest Snow Company manufactures and sells direct consumers 10,000 jars of 'Everest Snow' per month at Rs. 1.25 per jar. The company's normal production capacity is 20,000 jars of snow per month.

An analysis of the cost for 10,000 jars is given below:

	₹
Direct Material	1,000
Direct Labour	2,475
Power	140
Jars	600
Misc. Supplies	430
Fixed Expenses of manufacturing, selling and administration	7,955
Total	₹ 12,600

The company has received an offer for the export under a different brand name of 1,20,000 jars of snow at 10,000 jars per month at 75 paise a jar. Write a short report on the advisability or otherwise of accepting the offer.

Solution:

Marginal Cost Statement

	Per Unit	*Present capacity 50%*	*Proposed another 50% capacity @ 75 paise per unit*	*Total 100% capacity*
Sales (units)		10,000	10,000	20,000
	₹	₹	₹	₹
Sales (Value)	1.25	12,500	7,500	20,000
Less : Marginal Cost :				
Direct Material	0.1000	1,000	1,000	2,000
Direct Labour	0.2475	2,475	2,475	4,950
Power	0.0140	140	140	280
Misc. Supplies	0.0430	430	430	860
Jars	0.0600	600	600	1,200
	0.4645	4,645	4,645	9,290
Contribution	0.7845	7,855	2,855	10,710
Fixed Cost		7,955	—	7,955
Profit/Loss		(–)100	2,855	2,755

At the present level of activity, i.e., 10,000 units, there is a loss of Rs. 100 even though the variable cost is only Re. 0.4645 against a selling price of Rs. 1.25 per unit. The reason is that the total cost per unit (including fixed costs) is Rs. 1.26 per unit. But if an additional 10,000 units are sold it converts the loss of Rs. 100 into a profit of Rs. 2,755 even though an additional offer for 10,000 units is @ 75 paise per unit only. This is so because of the fact that additional sales give a contribution of Rs. 2,855 i.e. (Rs. 0.75-0.4645 or say 0.2855 per unit). As additional sales give contribution and no additional fixed costs are involved, the offer should he accepted.

However, before taking a final decision the following further points should be studied:

(i) The cost of exporting, if any

(ii) Risk or re-import of the same goods into the home market and generating competition with itself.

(iii) Effect of lower export price on the home market.
(iv) Alternative uses of surplus capacity.

2.Profit Planning and Maintaining a Desired Level of Profit: Marginal costing techniques can be applied for profit planning as well. Profit planning involves the planning of future operations to achieve maximum profits or to maintain a desired level of profits. The change in the sales price, variable cost, and product mix affect the profitability of a concern. Absorption costing fails to bring out the effect of such changes on the profits of a concern due to the inclusion of fixed expenses in the total cost. With the help of marginal costing, the required value of sales for maintaining or attaining a desired level of profit may be ascertained as follows:

Desired Sales = Fixed Cost + Desired Profit/P/V Ratio

Illustration 2: The price structure of a cycle made by the Cycle Company Ltd. is as follows:

	Per Cycle ₹
Materials	60
Labour	20
Variable Overheads	20
	100
Fixed Overheads	50
Profit	50
Selling Price	200

This is based on the manufacture of one lakh cycles per annum.
The company expects that due to competition they will have to reduce selling prices, but they want to keep the total profits intact.

What level of production will have to be reached, i.e., how many cycles will have to be made to get the same amount of profit if:
(a) The selling price is reduced by 10%.
(b) The selling price is reduced by 20%.
Solution:

Fixed Overheads = ₹ 50 per cycle.
Present Profit = ₹ 50 per cycle.
Total No. of Cycles = 1 lakh
Fixed Costs = 50 × 1 = ₹ 50 lakhs.
Total Present Profit = ₹ 50 lakhs

Desired Sales $= \dfrac{\text{Fixed Cost + Profit}}{\text{P/V Ratio}} = \dfrac{\text{Fixed Cost + Profit}}{\text{Contribution per unit}}$

***(a)* If the selling price is reduced by 10%**

New Selling price = 200–10% = 200 – 20 = ₹ 180

Hence, $= \dfrac{50,00,000 + 50,00,000}{180 - 100}$

$= \dfrac{1,00,00,000}{80} = 1,25,000$ cycles.

***(b)* If the selling price is reduced by 20%**

New Selling Price = 200 – 20% = 200 – 40 = ₹ 160

Desired Sales $= \dfrac{50,00,000 + 50,00,000}{160 - 100}$

$= \dfrac{1,00,00,000}{60} = 1,66,667$ cycles.

3.Make or Buy Decisions:

Sometimes a concern has to decide whether a certain product or a component should be made in the factory itself (having unused production facilities) or bought from outside from a firm which specialises in it. In taking such a 'make or buy' decision, the technique of marginal costing is of immense help. While deciding to 'make or buy' a distinction must be made between fixed cost and variable cost, and the variable cost of manufacturing it should be compared with the price at which this component or product can be bought from outside. It is advisable to make than to buy if the variable (marginal) cost of the product or component is lower than the purchase price. But if the purchase price is lower than the marginal cost, it would be better to buy than to make itself. However, this decision is based upon the assumptions that fixed expenses do not increase and production facilities cannot be employed more profitably. Further, the irregularity of supply from outside, disclosure of business secrets and non-availability of surplus capacity, etc. may force a concern to make rather than to buy.

Illustration 3:

A manufacturing company finds that while the cost of making component No. 0.51 in its own workshop is Rs. 8.00 each, the same is available in the market at Rs. 6.50 with an assurance of continuous supply. Give your suggestion whether to make or buy this component.

Give also your views in case the supplier reduces the price from Rs. 6.50 to Rs. 5.50. The cost data is as follows:

	₹
Materials	3.00
Direct labour	2.00
Other Variable Expenses	1.00
Depreciation and other Fixed Expenses	2.00
	8.00

Solution:

Since fixed costs are to be incurred whether we manufacture this component or not, the decision depends upon the marginal cost of making the component which is calculated as follows:

Marginal Cost of Component 0.51 (per unit)	₹
Materials	3.00
Direct Labour	2.00
Other Variable Expenses	1.00
	6.00

It is advisable to make the component itself if the marginal cost of making the component is lower than the purchase price because every component produced will give some contribution to the company. But in case the marginal cost is higher than the purchase price, it is better to buy the component from outside than to make it.

In the above example, if the purchase price is Rs. 6.50, it is not advisable to buy the component from outside. We should rather make the component of our own because every component manufactured will give a contribution of 50 paise. But the company should not manufacture the component if it is available at Rs. 5.50 from outside. In that case it is better to buy than to make.

Illustration 4:
LMN Ltd. purchases 20,000 bells per annum from an outside supplier at Rs. 5 each. The management feels that these be manufactured and not purchased. A machine costing Rs. 50,000 will be required to manufacture the item within the factory. The machine has an annual capacity of 30,000 units and life of 5 years.

The following additional information is available:

Material cost per bell	₹ 2.00
Labour cost per bell	₹ 1.00
Variable overheads	100% of labour cost

(a) The company should continue to purchase the bells from outside suppliers or should make them in the factory, and
(b) The company should accept an order to supply 5000 bells to the market at a selling price of Rs. 4.50 per unit?
Solution:

Marginal cost of manufacture per bell	₹
Material	2.00
Labour	1.00
Variable Overheads (100% of Direct Labour)	1.00
	4.00

Additional Fixed cost of manufacture p.a.
Depreciation (50,000 × 1/5) = Rs. 10,000
Since the marginal cost of manufacturing the bell is less than the supplier's price of Rs. 5, there shall be a saving of Rs. (Rs. 5-4) or Re. 1 per bell if the bell is manufactured within the factory. Manufacturing will however result in an additional fixed cost of Rs. 10,000 p.a. Hence the total saving will have to be compared with this additional cost.

(*a*) Total savings (contribution) for 20,000 bells	= ₹ 20,000 × 1.00 = ₹ 20,000
Less : Additional fixed cost	= ₹ 10,000
Profit (Net Savings)	₹ 10,000

Thus, it is advisable to manufacture these bells within the factory.

(*b*) If the company accepts the order to supply 5000 bells at ₹ 4.50 per unit, it will result into an additional contribution (profit) of ₹ 2,500 as calculated below :

Selling price per unit	₹ 4.50
Marginal cost per unit	₹ 4.00
Contribution per unit	₹ 0.50
Total contribution on 5000 bells	₹ 5,000 × 0.50
	= ₹ 2,500
Total Net savings (*a* + *b*)	₹ 10,000 + 2,500 = ₹ 12,500

Hence, the company should manufacture the bells within the factory and accept the order to supply 5000 bells at Rs. 4.50 each.

4. The problem of Key: A limiting factor is a factor that limits or restricts production or sales and thus prevents a concern from making unlimited profits. The limiting factor is also known as a key factor. The limiting factor may be any factor of production such as availability of raw material, labor, capital, plant capacity, and even sales.

In case, a concern has two or more product lines, and there is a key or limiting factor, a problem may arise as to which product should be produced more to utilize the limiting factor in the best possible manner and to maximize the profits. When the limiting factor is in operation, Contribution per unit of limiting factor should be the criterion to assess the profitability of a product. The product that gives the highest contribution per unit of limiting factor should be preferred to the one that gives a lower contribution per unit of limiting factor. When two or more limiting factors are in operation, it is necessary to take all of them into consideration.

Illustration 5: In a factory producing two different kinds of articles, the limiting factor is the availability of labor.From the following information, show which product is more profitable:

		Product A Cost per unit ₹	*Product B Cost per unit* ₹
Materials		5.00	5.00
Labour :	6 Hours @ Re. 0.50	3.00	
	3 House @ Re. 0.50		1.50
Overheads :	Fixed—50% of labour	1.50	0.75
	Variable	1.50	1.50
	Total cost	11.00	8.75
	Selling price	14.00	11.00
	Profit	3.00	2.25
	Total Production for the month	500	600

Maximum capacity per month is 4800 hours. Give proof in support of your answer.

Solution:

	A ₹	B ₹	*Product A (per unit)* ₹	*Product B (per unit)* ₹
Selling price			14.00	11.00
Less : Variable Cost :				
Materials	5.00	5.00		
Labour	3.00	1.50		
Variable Overheads	1.50	1.50		
			9.50	8.00
Contribution per unit			4.50	3.00
Labour Hours required per unit			6 hours	3 hours
Contribution per hour			$=\frac{4.50}{6}$ = 0.75	$\frac{3.00}{3}$ = 1.00

Hence, product B is more profitable (because of more contribution per hour).

Proof

	Product A	**Product B**
Maximum Capacity per month	4800 hours	4800 hours
Labour hours required per unit	6 hours	3 hours
Maximum Capacity in units	$\frac{4800}{6}$ = 800	$\frac{4800}{3}$ = 1600
	₹	₹
Materials	4,000	8,000
Labour @ ₹ 0.50 per hour for 4800 hours	2,400	2,400
Overheads :		
Fixed—50% of labour	1,200	1,200
Variable @ ₹ 1.50 per unit	1,200	2,400
Total Cost	8,800	14,000
Sales	(800 × 14) 11,200	(1600 × 11) 17,600
Profit	2,400	3,600

5. Selection of a Suitable or Profitable Sales Mix:

When a concern manufactures more than one product, a problem often arises as to the product mix or the sales mix which will yield the maximum profits. In determining the optimum or profitable sales mix, the products which give the maximum contribution are to be retained and their production should be increased. The production of products which give comparatively lesser contribution should be reduced or dropped altogether. Finally, the optimum sales mix is that which gives the highest contribution. In case there is a limiting factor, the contribution per unit of the limiting factor should be considered while judging the profitability of a product.

Illustration 6:Present the following information to show clearly to management:

(a) The marginal product cost and the contribution per unit.

(b) The total contribution and profits resulting from each of the following mixtures.

Sales Mixtures:

(a) 100 units of product A and 200 of B.

(b) 150 units of product A and 150 of B.

(c) 200 units of product A and 100 of B.

Solution:

	A ₹	B ₹	*Product A (per unit)* ₹	*Product B (per unit)* ₹
Selling price			14.00	11.00
Less : Variable Cost :				
Materials	5.00	5.00		
Labour	3.00	1.50		
Variable Overheads	1.50	1.50		
			9.50	8.00
Contribution per unit			4.50	3.00
Labour Hours required per unit			6 hours	3 hours
Contribution per hour			$= \frac{4.50}{6}$ = 0.75	$\frac{3.00}{3}$ = 1.00
Hence, product B is more profitable (because of more contribution per hour).				

Proof

	Product A	*Product B*
Maximum Capacity per month	4800 hours	4800 hours
Labour hours required per unit	6 hours	3 hours
Maximum Capacity in units	$\frac{4800}{6}$ = 800	$\frac{4800}{3}$ = 1600
	₹	₹
Materials	4,000	8,000
Labour @ ₹ 0.50 per hour for 4800 hours	2,400	2,400
Overheads :		
Fixed—50% of labour	1,200	1,200
Variable @ ₹ 1.50 per unit	1,200	2,400
Total Cost	8,800	14,000
Sales	(800 ×14) 11,200	(1600 × 11) 17,600
Profit	2,400	3,600

As sales mixture (c), i.e., 200 units of A and 100 units of B gives the maximum profit, it is more profitable.

6. **Effect of Changes in Sales Price:** Management is generally confronted with a problem of analysing the effect of changes in sales price upon the profitability of the concern. It may be required to reduce the prices on account of competition,

depression, and expansion programme or government regulations. The effect of changes in sales prices can be easily analysed with the help of contribution technique.

7. **Alternative Methods of Production:** Sometimes the management has to choose from among alternative methods of production, e.g., machine work or hand work. The same product may be produced either by employing machine No. 1 or Machine No. 2, and the management may be confronted with the problem of choosing one among them. In such circumstances, technique of marginal costing can be applied and the method which gives the highest contribution can be adopted keeping in view, of course, the limiting factor.

8. **Determination of Optimum Level of Activity:** The technique of marginal costing also helps the management in determining the optimum level of activity. To make such a decision, contribution at different levels of activity can be found, and the level of activity which gives the highest contribution will be the optimum level. The level of production can be raised till the marginal cost does not exceed the selling price.

Illustration 7:A factory engaged in manufacturing plastic buckets is working at 40% capacity and produces 10,000 buckets per annum.

The present cost break-up for one bucket is as under:

	₹	
Material	10	
Labour Cost	3	
Overhead	5	(60% Fixed)

The Selling price is Rs. 20 per bucket.If it is decided to work the factory at 50% capacity, the selling price falls by 3%. At 90% capacity, the selling price falls by 5% accompanied by a similar fall in the prices of material. You are required to calculate the profit at 50% and 90% capacities and also calculate break-even points for the capacity productions.

Solution:

Output at 40% Capacity $= 10{,}000$ units

$\therefore$ Output at 50% Capacity $= \dfrac{10{,}000 \times 50}{40} = 12{,}500$ units

And Output at 90% capacity $= \dfrac{10{,}000 \times 90}{40} = 22{,}500$ units

Profitability Statement at 50% And 90% Capacities

	50% Capacity		90% Capacity	
	Per unit ₹	Total ₹	Per unit ₹	Total ₹
(a) Sales	19.40 $\left(20-\frac{3\times 20}{100}\right)$	2,42,500	19.00 $\left(20-\frac{5\times 20}{100}\right)$	4,27,500
(b) Variable Costs :				
Materials	10.00	1,25,000	9.50 $\left(10-\frac{5\times 10}{100}\right)$	2,13,750
Wages	3.00	37,500	3.00	67,500
Variable Overhead (40% of ₹ 5)	2.00	25,000	2.00	45,000
Total Variable Cost	15.00	1,87,500	14.50	3,26,250
(c) Contribution (a–b)	4.40	55,000	4.50	1,01,250
(d) Fixed Overheads (60% of ₹ 5) i.e., (10,000 × 3)		30,000		30,000
(e) Profit (c–d)		25,000		71,250

$$\text{Break–Even Point} = \frac{\text{Fixed Expenses}}{\text{Contribution per unit}}$$

$$\text{B.E.P., at 50\% Capacity} = \frac{30{,}000}{4.40} = 6{,}818 \text{ units}$$

$$\text{B.E.P., at 90\% Capacity} = \frac{30{,}000}{4.50} = 6{,}667 \text{ units}$$

9. **Evaluation of Performance:** Evaluation of performance efficiency of various departments, product lines or markets can also be made with the use of the technique of marginal costing. Sometimes, the management may have to decide to discontinue the production of non-profitable products or departments so as to maximise the profits.In such cases, the contribution of different products, departments or sales divisions can be compared and the one which gives the lowest contribution in comparison to sales, i.e., the one with lowest P/V ratio should be discontinued.

10. **Capital Investment Decisions:**The technique of marginal costing also helps the management in taking capital investment decisions. However, a simple example is given below to illustrate how marginal costing technique can be used while making such decisions.

Illustration 10: Apractising Chartered Accountant now spends Re. 0.90 per kilometer on taxi fares for his client's work. He is considering two other alternatives, the purchase of a new small car or an old bigger car.

The estimated cost figures are:

Items	*New Small Car* ₹	*Old Bigger Car* ₹
Purchase Price	35,000	20,000
Sale Price, after 5 years	19,000	12,000
Repairs & Servicing (per annum)	1,000	1,200
Taxes & Insurance, per annum	1,700	700
Petrol Consumption, per litre	10 km.	7 km.
Petrol price ₹ 3.50 per litre		

He estimates that he does 10,000 km. Annually. Which of the three alternatives will be cheaper? If his practice expands and he has to do 19,000 km per annum, what should be the decision? At how many km per annum will the costs of the two cases break even and why? Ignore interest and income tax.

Solution:

Comparative Cost Statement

	New Small Car ₹	*Old Bigger Car* ₹	*Taxi* ₹
Purchase Price	35,000	20,000	
Less : Sale Price (after 5 yrs)	19,000	12,000	
Depreciation for 5 years	16,000	8,000	
Depreciation for one years	3,200	1,600	
Repair and Servicing	1,000	1,200	
Taxes & Insurance	1,700	700	
Fixed Cost, per annum	5,.900	3.500	
Variable Cost, per annum :			
(i) Petrol for 10,000 km.			
New Small Car @ ₹ 3.50 for 10 km.	3.500		
Old Big Car @₹ 3.50 for 7 km.		5.000	
(ii) Petrol for 19,000 km.	6.650	9.500	
Total Cost (Fixed + Variable)	9,400	8,500	9,000
for 10,000 km.			(10,000 × 0.90)
for 19,000 km.	12,550	13,000	17,100
			(19,000 × 0.90)

Conclusion: For the present practice requiring 10,000 km, an old bigger car is the cheapest as the annual cost is Rs. 8,500 which is the lowest of the three alternatives. But if his practice expands to 19,000 km, a new small car will be the cheapest with an annual cost of Rs. 12,550.

Calculation of Km at which the cost of the two cars will break even:

The variable cost of a new small car, for 10,000 km. Rs. 3,500

∴ Variable cost of a new small car, per km. = (3,500/10,000) = Re. 0.35

The variable cost of an old bigger car, for 10,000 km. = Rs. 5,000

∴ Variable cost of a bigger car, per km. = 5,000/10,000 = Re. 0.50

The difference in the variable cost of two cars = 0.50 – 0.35 = Re. 0.15

Difference in the fixed cost of two cars = Rs. 5,900 – 3,500 = Rs. 2,400

Hence, Break – Even Point = Difference in fixed cost/Difference in variable cost per km.

= 2,400/15 × 100 = 16,000 km.

Proof:

At 16,000 km, the total cost of two cars is as:

		New Car ₹		*Old Car* ₹
Fixed Cost		5,900		3,500
Variable Cost	(16,00 × 0.35)	5,600	(16,000 × 0.50)	8,000
Total Cost		11,500		11,500

10.12 SELF-ASSESSMENT QUESTIONS:

1. What are the Basic Characteristics of Marginal Costing
2. Explain the Assumptions of Marginal Costing
3. Explain the Marginal Cost Equation
4. What is Profit Volume Ratio?

5.Define Marginal Costing and Explain its Key Principles.
6. Explain the advantages and limitations of marginal costing
7. Discuss the practical application of marginal costing.
8. What is the difference between marginal costing and absorption costing?
9. Explain the significance of the profit-volume (PV) ratio in marginal costing.

10.13SUGGESTED READINGS:

1. Management Accounting Principles and Practice – Shashi K. Gupta, R.K Sharma
2. Management Accounting – R.S.N. Pillai , Bhagavathi

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LESSON 11
CVP ANALYSIS

OBJECTIVE:

After studying Cost-Volume-Profit (CVP) Analysis, you should be able to:

1. Understand Cost Behavior
2. Analyze Profitability
3. Calculate and Interpret Contribution Margin
4. Evaluate the Margin of Safety
5. Assess the Role of Operating Leverage

STRUCTURE:

11.1 COST- VOLUME –PROFIT ANALYSIS:

Cost – Volume- Profit analysis is a technique for studying the relationship between cost, volume and profit. Profits of an undertaking depend upon a large number of factors. But the most important of these factors are the cost of manufacture, volume of sales, and the selling prices of the products. In the words of Herman C. Heiser, "the most significant single factor in profit planning of the average business is the relationship between the volume of business, costs and profits". The CVP relationship is an important tool used for the profit planning of a business.

The three factors of CVP analysis ie., costs, volume, and profit are interconnected and dependent on one another. For example, profit depends upon sales, selling price to a large extent depends upon cost and cost depends upon volume of production as it is only the variable cost that varies directly with production, whereas fixed cost remains fixed regardless of the volume produced. In cost-volume-profit analysis, an attempt is made to analyze the relationship between variations in cost with variations in volume.

The cost-volume-profit relationship is of immense utility to management as it assists in profit planning, cost control, and decision-making. Cost-volume-profit analysis can be used to answer questions such as:

1. How much sales should be made to avoid losses?
2. How much should be the sales to earn the desired profit?
3. What will be the effect of change in prices, costs, and volume on profits?
4. Which product or product mix is most profitable?
5. Should we manufacture or buy some product or component? And so on.

11.2 BREAK – EVEN ANALYSIS:

The study of cost-volume profit analysis is often referred to as "break-even analysis" and the two terms are used interchangeably by many. This is so because break-even analysis is the most widely known form of cost-volume-profit analysis. The term "break-even analysis" is used in two senses-narrow sense and broad sense. In its broad sense, break-even analysis refers to the study of the relationship between costs, volume, and profit at different levels of sales or production. In its narrow sense, it refers to a technique of determining the level of operations where total revenues equals total expenses, i.e , the point of no profit, no loss.

11.2.1 Importance of Break-Even Analysis

- **Manages the size of units to be sold:** With the help of break-even analysis, the company or the owner comes to know how many units need to be sold to cover the cost. The variable cost and the selling price of an individual product and the total cost are required to evaluate the break-even analysis.
- **Budgeting and setting targets:** Since the company or the owner knows at which point a company can break-even, it is easy for them to fix a goal and set a budget for the firm accordingly. This analysis can also be practised in establishing a realistic target for a company.
- **Manage the margin of safety:** In a financial breakdown, the sales of a company tend to decrease. The break-even analysis helps the company to decide the least number of sales required to make profits. With the margin of safety reports, the management can execute a high business decision.
- **Monitors and controls cost:** Companies' profit margin can be affected by the fixed and variable cost. Therefore, with break-even analysis, the management can detect if any effects are changing the cost.
- **Helps to design pricing strategy: The** break-even point can be affected if there is any change in the pricing of a product. For example, if the selling price is raised, then the quantity of the product to be sold to break-even will be reduced. Similarly, if the selling price is reduced, then a company needs to sell extra to break-even.

11.2.2 Assumptions of Break Even Analysis

While break-even analysis is a valuable tool for businesses, it does have certain limitations. Here are five key limitations of break-even analysis:

➢ **Assumes Constant Variable Costs and Selling Prices**

Break-even analysis generally assumes that variable costs per unit and selling prices remain constant over the entire range of output, which is often unrealistic.

Selling prices can change due to market conditions, competition, and other external factors. Variable costs can also vary, for example, due to fluctuations in raw material prices or changes in labor costs.
Example: If a manufacturer expects raw material costs to increase due to supply chain issues, the break-even analysis might underestimate the actual break-even point.

- **Ignores Changes in Fixed Costs**

The analysis assumes fixed costs remain unchanged, but in reality, fixed costs can increase over time due to factors such as inflation, maintenance, or capacity expansions. Significant changes in fixed costs can alter the break-even point, making the analysis less accurate.
Example: If a company plans to expand its production facility, the resulting increase in fixed costs would not be reflected in a static break-even analysis.

- **Single Product Focus**

Break-even analysis typically focuses on a single product or a limited Product mix, which may not accurately reflect a business with a diverse product portfolio. For businesses that sell multiple products with different cost structures and selling prices, calculating a single break-even point can be overly simplistic and less useful.
Example: A retailer with hundreds of products would find it challenging to use break-even analysis to strategic decision making, since it would not account for the variability in costs and prices across its product range.

- **Ignores Demand and Market Conditions**

Break-even analysis does not take into account market demand, competition, or other external factors that can affect sales volume and pricing. The analysis might indicate a feasible break-even point, but actual market conditions could make it difficult to achieve the required sales volume.
Example: A new entrant in a highly competitive market might find that although break-even analysis suggests profitability, the actual market share necessary to reach break-even is unattainable.

- **Short-Term Focus**

Break-even analysis is often used for short-term decision-making and may not adequately reflect long-term financial performance.It does not incorporate factors such as technological advancements, changes in consumer behavior, or long-term strategic objectives.
Example: A tech company might use break-even analysis to evaluate a new product launch, but this analysis would not account for future changes in technology that could render the product
Obsolete.

11.3 USES & LIMITATIONS OF BREAK EVEN ANALYSIS:

Uses of Break-Even Analysis

- **New business:** For a new venture, a break-even analysis is essential. It guides the management with pricing strategy and is practical about the cost. This analysis also gives an idea if the new business is productive.
- **Manufacture new products:** If an existing company is going to launch a new product, then they still have to focus on a break-even analysis before starting and see if the product adds necessary expenditure to the company.

- **Change in business model: The** break-even analysis works even if there is a change in any business model like shifting from retail business to wholesale business. This analysis will help the company to determine if the selling price of a product needs to change.

Limitations: Break-even analysis is a valuable tool for financial planning, but it has several limitations:

1. **Assumes Constant Selling Price and Costs** – It assumes that the selling price per unit and variable costs remain unchanged, ignoring bulk discounts or cost fluctuations.
2. **Ignores Market Demand** – The analysis does not consider whether there is enough demand to sell the required volume.
3. **Simplistic Cost Categorization** – It assumes all costs are either fixed or variable, ignoring semi-variable costs like utilities.
4. **Limited to Single-Product Analysis** – Applying it to multi-product businesses is complex since fixed costs must be allocated appropriately.
5. **Static and Short-Term Focus** – It does not account for market changes, inflation, or shifts in consumer preferences over time.
6. **No Consideration of Time Factor** – It does not indicate how long it will take to reach the break-even point.
7. **Excludes External Factors** – Economic conditions, competition, and government policies are not factored in, which can impact sales and costs.
8. **Assumes Linear Relationships** – It assumes that costs and revenues change proportionally, which may not always be realistic.

11.4 COMPUTATION OF THE BREAK EVEN POINT:

Break even analysis may be conducted by the following two methods:

A) Algebraic computations
B) Graphic presentations

(A)Algebraic Computations

i) Break - even point: The word contribution has been given its name because of the fact that it literally contributes towards the recovery of fixed costs and the making of profits. The contribution grows along with the sales revenue till the time it just covers the fixed cost. This is the point where neither **profits nor losses** have been made is known as a breakeven point.

This implies that in order to break even the amount of contribution generated should be exactly equal to the fixed costs incurred. Hence, if we know how much contribution is generated from each unit sold we shall have sufficient information for computing the number of units to be sold in order to break even. Mathematically,

Break-even point in units = Fixed costs / Contribution per unit

Example 1: ABC Ltd. manufacturing a single product, incurring variable costs of Rs.300 per unit and fixed costs of Rs. 2,00,000 per month. If the product sells for Rs. 500 per unit, the break-even point shall be calculated as follows;

Break- even point in units =Fixed costs / Contribution per unit

= Rs.2,00,000/ Rs.200

= 1,000 units

Break- even points (in Value) = Total fixed cost / Contribution× Sales

Break- even point (in Value) = Total fixed cost / P / V Ratio

ii) Cash Break-even point
When break-even point is calculated only with those fixed costs which are payable in cash, such a break-even point is known as cash break-even point. This means that depreciation and other non-cash fixed costs are excluded from the fixed costs in computing cash break-even point. Its formula is – **Cash break- even point** = Cash fixed costs / Contribution per unit

Illustration 1: S Ltd sold 2,75,000 units of its product at Rs. 37.50 per unit. Variable costs are Rs. 17.50 per unit (manufacturing costs of Rs.14 and selling cost Rs. 3.50 per unit). Fixedcosts are incurred uniformly throughout the year and amounting to costs are incurred uniformly throughout the year and amounting to Rs .35,00,000 (including depreciation of ` 15,00,000). There are no beginning or ending inventories. COMPUTE breakeven sales level quantity and cash breakeven sales level quantity.

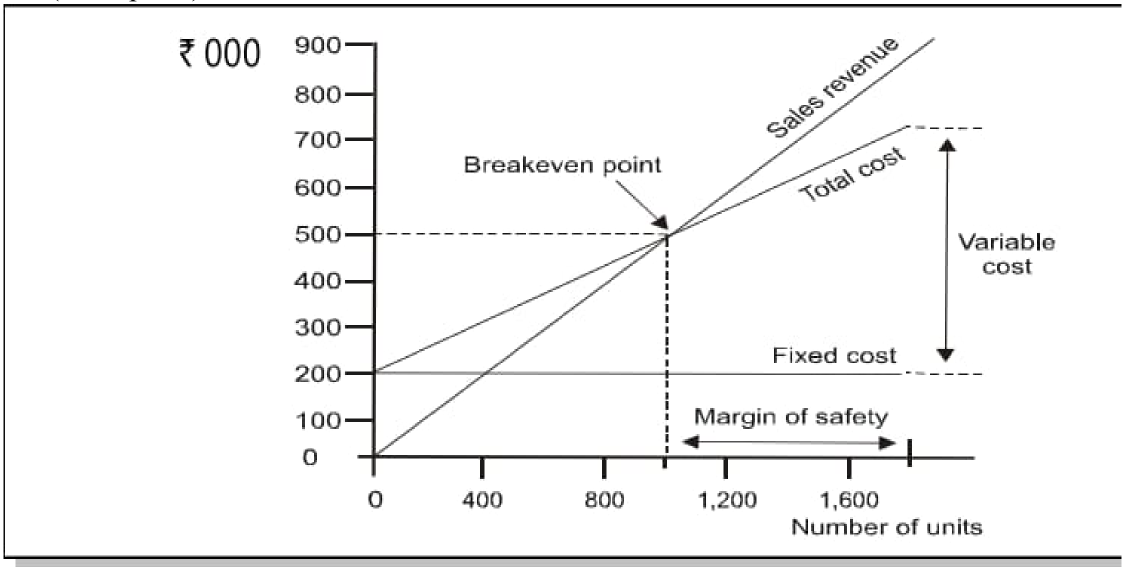
Solution
Break even Sales Quantity =Fixed cost / Contribution margin per unit
= Rs. 35,00,000 Rs .20
= 1,75,000 units
Cash Break-even Sales Quantity =Cash Fixed Cost / Contribution margin per unit
= Rs .20,00,000 / Rs .20
=1,00,000 units.

iii) Multi- Product Break-even Analysis: In a multi-product environment, where more than one product is manufactured by using a common fixed cost, the break-even point formula needs some adjustments. The contribution is calculated by taking weights for the products. The weights may be of sales mix quantity or sales mix values. The calculation of Multi-Product Break-even analysis can be understood with the help of the following example.
Example :
Amar Ltd. sells two products, J and K. The sales mix is 4 units of J and 3 units of K. The contribution margins per unit are Rs. 40 for J and Rs .20 for K. Fixed costs are Rs. 6,16,000 per month. Sales mix (in quantity) is 4 units of Product- J and 3 units of Product- K i.e. Sales ratio is 4 : 3

Solution:
Composite contribution per unit by taking weights for the product sales quantity
=Product J- Rs. 40X 4/ 7+ Product K- Rs. 20 X3/7
= Rs. 22.86 + Rs. 8.57 = Rs. 31.43
Composite Break-even point = Common Fixed Cost/ Composite Contribution per unit
= Rs. 6,16,000 / Rs. 31.43 = 19,600 units
Break-even units of Product-J = 19,600X 4/7= 11,200 units
Break-even units of Product- K = 19,600 X 3/7= 8,400 units

(B) Graphical Presentation of Break Even Chart
i) Break-even Chart
A breakeven chart records costs and revenues on the vertical axis and the level of activity on the horizontal axis. The making of the breakeven chart would require you to select appropriate axes. Subsequently, you will need to mark costs/revenues on the Y axis whereas the level of activity shall be traced on the X axis. Lines representing (i) Fixed costs (horizontal line at Rs. 2,00,000 for ABC Ltd), (ii) Total costs at maximum level of activity (joined to the Y-axis where the Fixed cost of Rs. 2,00,000 is marked) and (iii) Revenue at maximum level of activity (joined to the origin) shall be drawn next. The breakeven point is

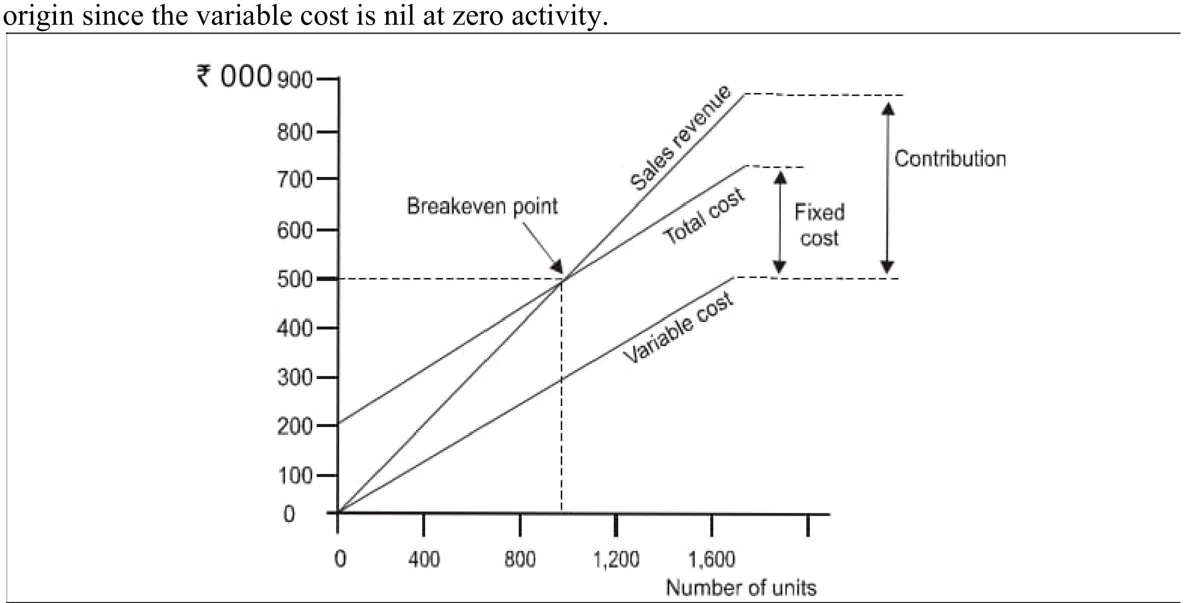
that point where the sales revenue line intersects the total cost line. Other measures like the margin of safety and profit can also be measured from the chart.The breakeven chart for ABC Ltd (Example-1) is drawn below.



ii) Contribution Breakeven chart

It is not possible to use a breakeven chart as described above to measure contribution. This is one of its major limitations especially so because contribution analysis is literally the backbone of marginal costing. To overcome such a limitation, accountants frequently resort to the making of a contribution breakeven chart which is based on the same principles as a conventional breakeven chart except for that it shows the variable cost line instead of the fixed cost line. Lines for Total cost and Sales revenue remain the same. The breakeven point and profit can be read off in the same way as with a conventional chart. However, it is also possible to read the contribution for any level of activity.

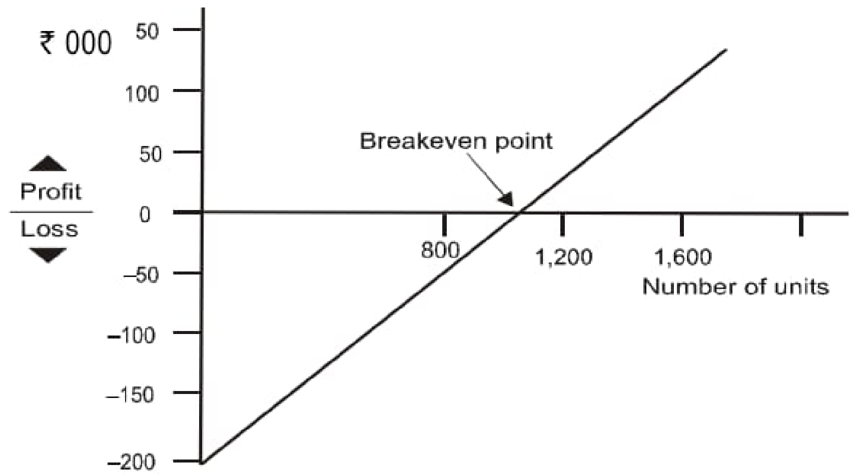
Using the same example of ABC Ltd as for the conventional chart, the total variable cost for an output of 1,700 units is 1,700 × Rs.300 = Rs.5,10,000. This point can be joined to the origin since the variable cost is nil at zero activity.



The contribution can be read as the difference between the sales revenue line and the variable cost line.

iii) Profit-volume chart

This is also very similar to a breakeven chart. In this chart the vertical axis represents profits and losses and the horizontal axis is drawn at zero profit or loss.In this chart each level of activity is taken into account and profits marked accordingly. The breakeven point is where this line interacts the horizontal axis. A Profit-volume graph for our example (ABC Ltd) will be as follows,



The loss at a nil activity level is equal to Rs. 2,00,000, i.e. the amount of fixed costs. The second point used to draw the line could be the calculated breakeven point or the calculated profit for sales of 1,700 units.

11.5 MARGIN OF SAFETY:

The margin of safety can be defined as the difference between the expected level of sale and the breakeven sales. The larger the margin of safety, the higher is the chances of making profits.

The Margin of Safety can also be calculated by identifying the difference between the projected sales and breakeven sales in units multiplied by the contribution per unit. This is possible because, at the breakeven point all the fixed costs are recovered and any further contribution goes into the making of profits. It also can be calculated as:

Margin of Safety = Profit / P / V Ratio

Illustration

A company earned a profit of Rs. 30,000 during the year. If the marginal cost and selling price of the product are Rs. 8 and Rs. 10 per unit respectively, FIND OUT the amount of margin of safety.

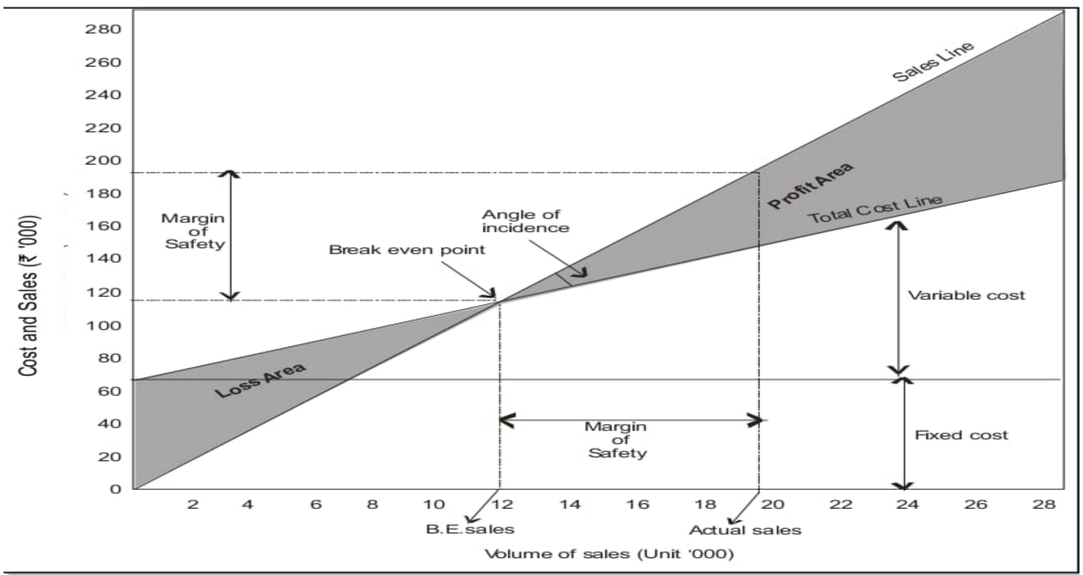
Solution

P/V ratio = Selling price-Variable cost per unit/ Selling price
= 10- 8/ 10
= 20%

Margin of safety = Profit / P/V ratio
= 30,000/ 20%
= Rs.1,50,000

11.6 ANGLE OF INCIDENCE:

This angle is formed by the intersection of sales line and total cost line at the breakeven point. This angle shows the rate at which profit is earned once the breakeven point is reached. The wider the angle the greater is the rate of earning profits. A large angle of incidence with a high margin of safety indicates extremely favourableposition.The shaded area in the graph given below is representing the angle of incidence. The angle above and below the break-even point shows the rate of earning profitability (loss). Wider angle denotes higher rate of earnings and vice-versa.



11.7 SELF ASSESSMENT QUESTIONS:

1. What is break- even analysis?
2. Define break- even point
3. What are the components of break-even point?
4. Write a short note on angle of incidence
5. Discuss the basic assumptions of cost volume profit analysis
6. Explain and illustrate break - even point with the help of break even chart
7. Analyze the role of break even analysis in determining the viability of a new product or service.
8. What is the significance of break even analysis in business decision making?
9. Explain the uses and limitations of break even analysis

11.8ILLUSTRATIONS:

1. You are given the following data:

YEAR	SALES	PROFIT
2019-20	Rs.120000	8000
2020-21	Rs.140000	13000

Find out – i) P/V ratio (ii) break-even point (iii) profit when sales are Rs. 180000 (iv) sales required earn a profit of Rs.12000 (v) margin of safety in year 2020-21

Solution:

YEAR	**SALES**	**PROFIT**
2019-20	Rs.120000	8000
2020-21	Rs.140000	13000
DIFFERENCE	**20000**	**5000**

i) P/V Ratio = Difference in profit/ Difference in Sales ×100
= 20,000 / 5,000 × 100
= 25%

Contribution in 2019-20 (1,20,000 × 25%) Rs. 30,000
Less: Profit 8,000
Fixed Cost* **22,000**

Note: *Contribution = Fixed cost + Profit
∴ Fixed cost = Contribution - Profit

(ii) Break-even point = Fixed cost/ P/V ratio
= 22,000/ 25%
= Rs. 88,000

(iii) Profit when sales are Rs.1,80,000
Contribution (Rs.1,80,000 × 25%) Rs. 45,000
Less: Fixed cost 22,000
Profit**23,000**

(iv) Sales to earn a profit of Sales to earn a profit of Rs. 12,000
Fixed cost + Desired profit / P/V / ratio
= 22,000+ 12000 / 25%
= Rs. 1,36,000

(v) Margin of safety in 2020-21
Margin of safety = Actual sales – Break-even sales
= 1,40,000 – 88,000 = Rs. 52,000

2. The following information is given by Star Ltd.:

Margin of Safety Rs.1,87,500
Total Cost Rs 1,93,750
Margin of Safety 3,750 units
Break-even Sales 1,250 units

Calculate Profit, P/V Ratio, BEP Sales (in Rs.) and Fixed Cost

Solution:

Margin of Safety (%) = 3,750units / 3,750units+1,250units
= 75%

Total Sales = Rs 1,87,500 / 75%
= Rs .2,50,000

Profit = Total Sales – Total Cost
= Rs 2,50,000 – Rs 1,93,750
= Rs. 56,250

P/V Ratio = Profit / Margin of Safety ×100
= 56,250/ 1,87,500×100

= 30%

Break-even Sales = Total Sales × [100 – Margin of Safety %]

= Rs. 2,50,000 × 0.25

= Rs 62,500

Fixed Cost = Sales × P/V Ratio – Profit

= Rs 2,50,000 × 0.30 – Rs 56,250 = Rs. 18,75

11.9 SUGGESTED READINGS:

1. Management Accounting Principles and Practice – Shashi K. Gupta, R.K Sharma
2. Management Accounting – R.S.N. Pillai , Bhagavathi

Dr.S.Srinivasa Rao

LESSON- 12
STANDARD COSTING AND VARIANCE ANALYSIS

OBJECTIVE:

1. Understand Standard Costing Concepts
2. Analyze Cost Variances
3. Use Variance Analysis for Decision-Making
4. Integration with Budgeting and Performance Measurement

STRUCTURE:

12.1 INTRODUCTION:

One of the fundamental functions of management accounting is to facilitate managerial control. Managerial control is the process of evaluating performance and, if necessary, applying corrective measures to ensure performance aligns with plans. Planning is the first prerequisite for effective control. The major aspect of managerial control is cost control, making it crucial to plan and control costs. Standard costing is a technique that helps management control costs and business operations by eliminating waste and increasing efficiency through standard-setting or cost planning.

12. 2 MEANING OF STANDARD COST AND STANDARD COSTING:

Standard Cost: Standard cost is the **predetermined or estimated cost** of producing a product or providing a service under normal conditions. It is based on factors such as material costs, labor rates, and overhead expenses. Businesses use standard costs as a benchmark for cost control and performance evaluation.

Standard Costing: Standard costing is a **cost accounting technique** in which standard costs are assigned to products or services instead of actual costs. It helps in budgeting, cost control, and variance analysis by comparing actual costs with standard costs to identify deviations (variances) and take corrective actions.

12.3 WHY STANDARD COSTING IS NEEDED?

Standard costing is important for businesses because it helps in **cost control, decision-making, and performance evaluation**. Here are some key reasons why it is needed:

1. **Cost Control & Efficiency**
   - Helps in identifying and reducing unnecessary expenses.
   - Encourages efficient use of materials, labor, and overhead.
2. **Budgeting & Forecasting**
   - Provides a basis for preparing budgets and financial plans.
   - Helps in predicting future costs and setting realistic targets.
3. **Variance Analysis & Performance Evaluation**
   - Compares actual costs with standard costs to detect variances.
   - Identifies inefficiencies and areas for improvement.
4. **Pricing Decisions**
   - Helps in setting competitive and profitable selling prices.
   - Ensures cost-based pricing strategies are accurate.
5. **Decision-Making**
   - Aids managers in making informed decisions about production, purchasing, and cost reduction.
   - Supports strategic planning and investment decisions.
6. **Motivation & Accountability**
   - Encourages employees to work efficiently to meet cost targets.
   - Holds managers accountable for cost performance.
7. **Inventory Valuation**
   - Simplifies inventory valuation by assigning standard costs.
   - Reduces complexities in financial reporting.
8. **Improves Profitability**
   - Identifies areas where cost reductions can increase profitability.
   - Helps in improving overall financial performance.

12.4 TYPES OF STANDARDS IN STANDARD COSTING:

Different types of standards are used in cost accounting to suit various business needs. Here are the main types:

1. **Basic Standards**
   - These are long-term, unchanging cost standards used as a benchmark over several years.
   - They help in measuring long-term trends but are not useful for short-term decision-making.
   - Example: A company sets a basic standard for labor wages based on historical data.
2. **Ideal Standards (Theoretical Standards)**
   - Represent the **best possible performance** under perfect conditions (no inefficiencies, waste, or downtime).
   - Difficult to achieve, so they may demotivate employees.

- Example: A factory sets a standard that assumes zero machine breakdowns and 100% efficiency.

3. **Attainable Standards (Expected Standards)**
   - Based on **efficient but realistic** working conditions, considering normal losses and machine downtime.
   - Motivates employees as these standards are achievable with reasonable effort.
   - Example: A standard assumes 95% machine efficiency, allowing for minor breakdowns.
4. **Current Standards**
   - Based on **current operating conditions** and updated frequently to reflect the latest costs.
   - Useful in rapidly changing industries where costs fluctuate often.
   - Example: A manufacturer adjusts material costs in response to market price changes every quarter.
5. **Normal Standards**
   - Based on **average past performance** over a long period, considering typical fluctuations.
   - Useful for long-term planning but may not reflect short-term cost variations.
   - Example: A company's standard electricity cost is set based on the average usage over the past five years.

Which Type is Best ?

- **Attainable standards** are the most commonly used as they balance **realism and motivation**.
- **Ideal standards** are mainly for theoretical analysis and process improvements.
- **Current standards** are useful in dynamic industries where costs change frequently.

12.5 ADVANTAGES OF STANDARD COSTING:

The following advantages may be derived from standard costing in the light of the various objectives of the system:

1) To Measure Efficiency: Standard Costs provide a yardstick against which actual costs can be measured. The comparison of actual costs with the standard cost enables the management to evaluate the performance of various cost centres. In the absence of standard costing, efficiency is measured by comparing actual costs of different periods which is very difficult to measure because the conditions prevailing in both the periods may differ.

2) To Fix Prices and Formulate Policies: Standard costing is helpful in determining prices and formulating production policies. The standards are set by studying all the existing conditions. It also helps to find out the prices of various products. It helps the management in the formulation of production and price policies in advance.

3) For Effective Cost Control: One of the most advantages of standard costing is that it helps in cost control. By comparing actual costs with the standard costs, variances are determined. These variances facilitate management to locate inefficiencies and enables the management take remedial action against those inefficiencies at the earliest.

4) Management by Exception: Management by exception means that each individual is fixed targets and every one is expected to achieve these given targets. Management need not supervise each and everything and need not bother if everything is going as per the targets. Management interferes only when there is deviation. Variances beyond a predetermined limit may be considered by the management for corrective action. The standard costing enables the management in determining responsibilities and facilitates the principle of management by exception.

5) Valuation of Stocks: Under standard costing, stock is valued at standard cost and any difference between standard cost and actual cost is transferred to variance account. Therefore, it simplifies valuation of stock and reduces lot of clerical work to the minimum level.

6) Cost Consciousness: The emphasis under standard costing is more on cost variations which makes the entire organisation cost conscious. It makes the employees to recognise the importance of efficient operations so that efforts will be taken to reduce the costs to the minimum by collective efforts.

7) Provides Incentives: Under standard costing system, men, material and machines can be used effectively and economies can be effected in addition to enhanced productivity. Schemes may be formulated to reward those who achieve targets. It increases efficiency, productivity and morale of the employees.

12.6 LIMITATIONS OF STANDARD COSTING:

In spite of the above advantages, standard costing suffers from the following disadvantages:

1. Difficulty in Setting Standards: Setting standards is a very difficult task as it requires a lot of scientific analysis such as time study, motion study etc. When standards are set at high it may create frustration in the minds of workers. Therefore, setting of a correct standards is very difficult.

2. Not Suitable to Small Business: The system of standard costing is not suitable to small business as it requires lot of scientific study which involves Cost.Therefore, small firms may find it very difficult to operate the system.

3. Not Suitable to All Industries: The standard costing is not suitable to those industries which Produces non-standardized products. Similarly, the application of standard costing is very difficult to those industries where production process takes place more than one accounting period.

4. Difficult to Fix Responsibility: Fixing responsibility is not an easy task. Variances are to be classified into controllable and uncontrollable variances because responsibility can be fixed only in the case of controllable variances. It is difficult to classify controllable and uncontrollable variances for the variance controllable at one situation may become uncontrollable at another time. Therefore, fixing responsibility is very difficult under standard costing.

5. **Technological Changes**: Standard costing may not be suitable to those industries which are subject to frequent technological changes. When there is a change in the technology, production process will require a revision of standard. Frequent revision of standards is a costly affair and therefore, the system is not suitable for industries where methods and techniques of production are subject to fast changes. In spite of the above limitations, standard costing is a very useful technique in cost control and performance evaluation. It is

very useful tool to the industries producing standardized products which are repetitive in nature.

12.7 PROCESS OF STANDARD COSTING:

The process of standard cost is as below:

(i) **Setting of Standards**: The first step is to set standards which are to be achieved, the process of standard setting is explained below.

(ii) **Ascertainment of actual costs**: Actual cost for each component of cost is ascertained. Actual costs are ascertained from books of account, material invoices, wage sheet, charge slip etc.

(iii) **Comparison of actual cost with standard cost:** Actual costs are compared with the standards costs and variances are determined.

(iv) **Investigate the reasons for variances**: Variances arises are investigated for further action. Based on this, performance is evaluated and appropriate actions are taken

(v) **Disposition of variances**: Variances arise are disposed-off by transferring it the relevant accounts (costing profit and loss account) as per the accounting method (plan) adopted.

12.8 SETTING UP OF STANDARD COST:

Standard costing is a cost control technique where predetermined costs are established for materials, labor, and overhead to serve as performance benchmarks. Setting up a standard cost involves systematic steps to ensure accuracy and efficiency in cost control and decision-making.

Steps to Set Up Standard Cost

1. Define the Purpose of Standard Costing: Before setting up standards, businesses should identify objectives such as

- Cost control
- Performance evaluation
- Pricing and budgeting
- Efficiency improvement

2. Identify Standard Cost Components: Standard costs consist of three primary components

a) Material Cost Standards

- Standard Quantity: The amount of material required per unit of production.
- Standard Price: The expected price per unit of material based on market rates and supplier agreements.
- Formula :Standard Material Cost=Standard Quantity × Standard Price

b) Labor Cost Standards

- Standard Time: The expected time needed to produce one unit of output.
- Standard Wage Rate: The estimated hourly wage for direct labor.
- Formula :Standard Labor Cost=Standard Time × Standard Wage Rate

c) Overhead Cost Standards

- Overheads include variable and fixed costs.
- Allocated based on labor hours, machine hours, or production units.
- Formula :Standard Overhead Cost=Variable Overhead + Fixed Overhead

3. Establish the Basis for Setting Standards: Standards should be realistic and achievable. The following types of standards can be used:

TYPE OF STANDARD	DESCRIPTION	APPLICATION
Ideal Standard	Based on perfect efficiency, assumes no wastage or idle time.	Used for long-term goals but difficult to achieve.
Attainable Standard	Based on realistic working conditions with minor inefficiencies	Used for effective performance evaluation
Current Standard	Based on actual costs from recent periods	Suitable for short-term budgeting.
Basic Standard	Fixed for a long period, used as a benchmark	Helps in long-term trend analysis.

4. Approve and Implement the Standards

- Get approval from production, finance, and management teams.
- Communicate standards to relevant departments.
- Integrate standard costs into cost accounting and budgeting systems.

5. Monitor and Review the Standards

- Compare actual costs with standard costs (variance analysis).
- Adjust standards for inflation, productivity improvements, or process changes.
- Investigate reasons for cost variances and take corrective actions.

Setting up standard costs is crucial for controlling expenses, improving efficiency, and making informed decisions. By implementing and continuously reviewing standard costs, businesses can identify variances and optimize operations.

12.9 TYPES OF VARIANCES:

Controllable and un-controllable variances: For effective cost control it is necessary to investigate into the reasons for cost variances and to take corrective actions. For this purpose variances are classified as controllable and uncontrollable variances. Controllable variances are those which can be controlled under the normal operating conditions if a responsibility centre takes preventive measures and acts prudently. Uncontrollable variances are those which occurs due to conditions which are beyond the control of a responsibility centre and cannot be controlled even though all preventive measures are in place. Responsibility centres are answerable for all adverse variances which could have been controlled. Controllability is a subjective matter and varies from situation to situation. If the uncontrollable variances are of significant nature and are persistent, the standard may need revision.

Favourable and Adverse variance: Favourable variances are those which are profitable for the company and adverse variances are those which causes loss to the company. While computing cost variances favourable variance means actual cost is less than standard cost. On the other hand, adverse variance means actual cost is exceeding standard cost. The situation will be reversed for sales variance. Favourable variances mean actual is more than budgeted and adverse when actual is less than budgeted. Favourable variance in short denoted by capital ‘F’ and adverse variances by capital ‘A’.

12.9 CLASSIFICATION OF VARIANCES:

Variance analysis is a key concept in cost and management accounting that helps businesses evaluate their financial performance by comparing actual results with budgeted or standard costs. Variances arise when there is a difference between expected (standard) and actual figures in different areas such as costs, revenues, and production.The variances may be classified into following categories:

1. Direct Materials Variances
2. Direct Labour Variances
3. Overheads Cost Variances
4. Sales or Profit Variances.

1. Direct Material Variances: Direct material variances are also known as material cost variances. The material cost variance is the difference between the standard cost of materials that should have been incurred for manufacturing the actual output and the cost of materials that has been actually incurred**. Material Cost Variance** comprises of (i) Material Price Variance, and (ii) Material Usage Variance: Material usage variance may further be sub-divided into material Mix Variance and Material Yield Variance

a**) Material Cost Variance** (MCV) is the difference between the standard cost of materials for actual production and the actual cost incurred for those materials. It helps businesses assess how efficiently they are managing material costs and whether deviations arise due to price changes or inefficient usage.

Formula*:*
Material Cost Variance (MCV) =Standard Cost of Actual Material−Actual Cost of
Or, MCV= (Standard Quantity×Standard Price)−(Actual Quantity×Actual Price)

b) Material price variance: Material Price Variance (MPV) measures the difference between the actual cost of materials and the standard cost, based on the price paid per unit of material. It helps businesses assess whether materials were purchased at a higher or lower price than expected.

Formula: MPV=(Standard Price−Actual Price)×Actual Quantity

c) Material usage variance: Material Usage Variance (MUV), also known as **Material Quantity Variance**, measures the difference between the standard quantity of materials expected to be used for actual production and the actual quantity consumed. It helps businesses determine whether materials are being used efficiently.

Formula: MUV= (Standard Quantity−Actual Quantity) × Standard Price

d) Material mix variance: Material Mix Variance (MMV) measures the impact of changes in the proportion of different raw materials used in production compared to the standard mix. It helps businesses evaluate whether deviations from the planned material composition lead to cost savings or excess costs.

Formula*:*
Material Mix Variance= (Revised Standard Quantity−Actual Quantity) × Standard Price
Revised Standard Quantity = (Total actual quantity) × (Standard proportion of each material)

Illustration 1: for making 10kg. of CEMCO, the standard material requirements is:

Material	**Quantity**	**Rate per kg(Rs.)**
A	**8 Kg**	**6.00**
B	**4 Kg**	**4.00**

During April, 1000 kg of CEMCO were produced. The actual consumption of materials is as under:

Material	**Quantity**	**Rate per kg(Rs.)**
A	**750**	**7.00**
B	**500**	**5.00**

Calculate (a) material cost variance (b) material price variance (c) material usage variance.

Solution:

Basic Calculations

	Standard for 1,000 kg.			Actual for 1,000 kg.		
	Qty.	Rate	Amount	Qty.	Rate	Amount
	Kg.	(₹)	(₹)	Kg.	(₹)	(₹)
A	800*	6	4,800	750	7	5,250
B	400*	4	1,600	500	5	2,500
Total	1,200		6,400	1,250		7,750

* A- 8÷10 ×1000 = 800 ; B- 4÷10 × 1000 = 400)

Calculation of Variances:

(a) Material Cost Variance = Std. cost for actual output – Actual cost

MCV = 6,400 – 7,750 = Rs.1, 350 (A)

(b) Material Price Variance = (SP – AP) × AQ

A = (6 – 7) × 750 = Rs.750 (A)

B = (4 – 5) × 500= Rs. 500 (A)

MPV = Rs.1,250 (A)

(c) Material Usages Variance = (SQ – AQ) × SP

A = (800 – 750) × 6= Rs. 300 (F)

B = (400 – 500) × 4= Rs. 400 (A)

MUV = Rs. 100 (A)

Check: MCV = MPV + MUV

1,350 (A) = 1,250 (A) + 100 (A)

Illustration 2: The standard mix to produce one unit of a product is as follows:

Material X 60 units @ Rs.15 per unit = 900

Material Y 80 units @ Rs.20 per unit = 1,600

Material Z 100 units @ Rs .25 per unit = 2,500

240 units 5,000

During the month of April, 10 units were actually produced and consumption was as follows:

Material X 640 units @ Rs.17.50 per unit = 11,200

Material Y 950 units @ Rs.18.00 per unit = 17,100

Material Z 870 units @ Rs. 27.50 per unit = 23,925

2,460 units 52,225

Calculate all material variances.

Solution:

Material	Standard for 10 units			Actual for 10 units		
	Qty. Units	Rate (₹)	Amount (₹)	Qty. units	Rate (₹)	Amount (₹)
X	600	15	9,000	640	17.50	11,200
Y	800	20	16,000	950	18.00	17,100
Z	1,000	25	25,000	870	27.50	23,925
Total	2,400		50,000	2,460		52,225

1. Material Cost Variance= Standard cost – Actual cost
= Rs. 50,000 – Rs.52,225
MCV = Rs. 2,225 (A)

2. Material Price Variance = (Std. Price – Actual Price) × Actual Qty.
Material X = (15 – 17.50) × 640 = Rs. 1,600 (A)
Material Y = (20 – 18) × 950 = Rs.1,900 (F)
Material Z = (25 – 27.50) × 870 = Rs. 2,175 (A)
MPV = Rs. 1,875 (A)

3. Material Usage Variance = (Std. Qty. – Actual Qty.) × Std. Price
Material X = (600 – 640) × 15 = Rs.600 (A)
Material Y = (800 – 950) × 20 = Rs. 3,000 (A)
Material Z = (1,000 – 870) × 25 = Rs. 3,250 (F)
MUV **= Rs. 350 (A)**

Check, MCV = MPV + MUV ; Rs.2,225 (A) = Rs.1,875 (A) + Rs.350 (A)

4. Material Mix Variance = (Revised Std. Qty. – Actual Qty.) × Std. Price
Material X = (615* – 640) × 15 = Rs.375 (A)
Material Y = (820* – 950) × 20 = Rs. 2,600 (A)
Material Z = (1,025 – 870) × 25 = Rs.3,875 (F)
MMV **= Rs.900 (F)**
*Revised Standard Quantity (RSQ) is calculated as follows:
Material X = 2400/ 2460 × 600 = 615 units
Material Y = 2400/ 2460 × 800 = 820 units
Material Z = 2400/ 2460× 1,000 = 1,025 units

5. Material Yield Variance= (Std. Qty - Revised Std. Qty.) × Std. Price
Material X = (600 - 615) × 15 = Rs.225 (A)
Material Y = (800 - 820) × 20 = Rs.400 (A)
Material Z = (1,000 - 1,025) × 25 = Rs.625 (A)
MYV **= Rs.1,250 (A)**
Check
MUV = MMV + MYV (Or MRUV)
Rs.350 (A) = Rs.900 (F) + Rs.1,250 (A)
Or MCV = MPV + MMV + MYV (Or MRUV)
Rs..2,225 (A) = Rs.1,875 (A) + Rs.900 (F) + Rs.1,250 (A)
Note: A= Adverse; F= Favorable

2. Direct Labour Variances: Labour variances analyze the differences between standard labour costs and actual labour costs incurred in production. These variances help businesses assess efficiency, cost control, and workforce performance.

a) Labour cost variance: It measures the difference between the standard labour cost for actual production and the actual labour cost incurred. It helps businesses assess whether they are spending more or less on labour than planned.

Formula:

Labour Cost Variance=(Standard Hours×Standard Rate)−(Actual Hours×Actual Rate)

b) Labour rate of pay or wage rate variance: Labour Rate Variance (LRV) measures the difference between the standard wage rate and the actual wage rate paid for the actual hours worked. It helps businesses determine if they are paying more or less for labour than planned.

Formula: Labour Rate Variance=(Standard Rate−Actual Rate)×Actual Hours

c) Total labour efficiency or labour time variance: Labour Efficiency Variance (LEV), also known as **Labour Time Variance**, measures the difference between the standard labour hours expected for actual production and the actual hours worked, valued at the standard labour rate. It helps businesses evaluate workforce productivity and identify inefficiencies.

Formula:

Labour Efficiency Variance= (Standard Hours−Actual Hours)×Standard Rate

d) Net labour efficiency variance: Net Labour Efficiency Variance (NLEV) measures the combined impact of **Labour Efficiency Variance (LEV)** and **Labour Idle Time Variance (LITV)** on total labour costs. It helps businesses assess overall workforce productivity by accounting for both productive and unproductive time.

Formula*:*

Net Labour Efficiency Variance= Labour Efficiency Variance + Labour Idle Time Variance

Where:

- **Labour Efficiency Variance (LEV):** Measures efficiency based on actual vs. standard hours worked.

  (Standard Hours−Actual Hours)×Standard Rate
- **Labour Idle Time Variance (LITV):** Measures lost productivity due to idle time.

  Idle Hours × Standard Rate

e) Idle time variance: Idle Time Variance (ITV) measures the cost of unproductive hours during which workers are paid but not engaged in productive work. It is a component of **Labour Efficiency Variance** and highlights inefficiencies caused by factors such as machine breakdowns, material shortages, or poor scheduling.

Formula: Idle Time Variance=Idle Hours × Standard Rate

f) Labour mix or gang composition variance: Labour Mix Variance (also known as **Gang Composition Variance**) measures the impact of using a different mix of skilled, semi-skilled, and unskilled workers than planned. It helps businesses assess how changes in labour composition affect overall labour costs.

Formula:

Labour Mix Variance=(Revised Standard Hours−Actual Hours)×Standard Rate

Where: **Revised Standard Hours** = (Total actual hours) × (Standard proportion of each labour type)

Illustration 2: The standard output of product 'A' is 25 units per hour in manufacturing department of a company employing 100 workers. The standard wage rate per labour hour is Rs. 6. In a 42 hours week, the department produced 1,040 units of 'A' despite 5% of the time paid being lost due to an abnormal reason. The hourly wages actually paid were Rs.6.20, Rs.6 and Rs.5.70 respectively to 10, 30 and 60 of the workers. CALCULATE relevant labour variances**.**

Solution:
Working Notes:
1. Calculation of standard man hours
When 100 worker works for 1 hr., then the std. output is 25 units.
Std. man hour per unit = 100 hrs. / 25 units = 4 hrs.

2. Calculation of std. man hours for actual output
Total std. man hours = 1,040 units × 4 hrs. = 4,160 hrs.

Standard for actual			Actual					
Hours	Rate (₹)	Amount (₹)	No. of workers	Actual hours paid	Idle time hrs.	Production hours	Rate (₹)	Amount paid (₹)
4,160	6	24,960	10	420	21	399	6.20	2,604
			30	1,260	63	1,197	6.00	7,560
			60	2,520	126	2,394	5.70	14,364
4,160	**6**	**24,960**	**100**	**4,200**	**210**	**3,990**		**24,528**

1. Labour cost variance = Std. labour cost – Actual labour cost
= 24,960 – 24,528 = Rs.432 (F)
2. Labour rate variance = (SR – AR) × AHPaid
= (6 – 6.20) × 420 = 84 (A)
= (6 - 6) × 1260 = NIL
= (6 - 5.70) × 2,520 = 756 (F)
= 672 (F)
3. Labour efficiency variance = (SH – AH) × SR = (4,160 – 3,990) × 6 = 1,020 (F)
4. Labour Idle time variance = Idle Hours × SR = 210 × 6 = 1,260 (A)

3. Overheads Cost Variances: Overhead cost variances measure the differences between the **standard overhead costs** (planned) and the **actual overhead costs** incurred. Overheads include **fixed** and **variable** costs such as rent, utilities, depreciation, and indirect labour.

(i) Variable overhead variance: Thesevariances arise from changes in production levels affecting variable overheads like electricity, maintenance, and indirect materials.
(a) Variable Overhead Cost Variance (VOCV): Measures the overall difference between standard variable overheads and actual variable overheads incurred.
Formula:
Variable Overhead Cost Variance=(Standard Hours×Standard Variable Overhead Rate)−Actual Variable Overheads

(b) Variable Overhead Efficiency Variance (VOEV): Measures the effect of efficiency in labour or machine usage on variable overheads.
Formula: VOEV=(Standard Hours−Actual Hours)×Standard Variable Overhead Rate
(c) Variable Overhead Expenditure Variance (VOXV): Measures the difference between the standard variable overhead rate and the actual rate per hour.
Formula: VOXV=(Standard Rate−Actual Rate)×Actual Hours

(ii) Fixed overhead variance: These variances arise from differences between budgeted and actual fixed overhead costs, such as rent, depreciation, and salaries.
(a) Fixed Overhead Cost Variance (FOCV): Measures the overall difference between standard fixed overhead costs and actual fixed overheads.
Formula:
Fixed Overhead Cost Variance=(Standard Hours×Standard Fixed Overhead Rate)−Actual Fixed Overheads
(b) Fixed Overhead Expenditure Variance (FOXV): Measures the difference between budgeted fixed overheads and actual fixed overheads.
Formula: FOXV=Budgeted Fixed Overheads−Actual Fixed Overheads
c) Fixed Overhead Volume Variance (FOVV): Measures how changes in production levels affect the absorption of fixed overheads.
Formula: FOVV= (Standard Hours−Budgeted Hours)×Standard Fixed Overhead Rate

4. Sales or Profit Variances: Sales variances help analyze the difference between actual and expected (budgeted) sales. Common types include:
a) Sales Volume Variance: Measures the effect of selling more or fewer units than planned.
Formula: (Actual Quantity− Budgeted Quantity) × Budgeted Selling Price
b) Sales Price Variance: Analyzes the effect of selling at a different price than planned.
Formula: (Actual Selling Price−Budgeted Selling Price) × Actual Quantity Sold
c) Sales Mix Variance: Evaluates how changes in the proportion of different products sold affect revenue.
d) Sales Quantity Variance: Shows how changes in overall sales volume (regardless of mix) impact revenue.
Formula:
(ActualTotalSales−BudgetedTotalSales)×WeightedAverageContributionMarginperUnit

5. Profit method of calculating sales variances: Instead of using sales revenue alone, the **profit method** of sales variances focuses on the **contribution margin** (profit per unit) rather than just selling price. This provides a better picture of how sales performance affects overall profitability. The variances are analyzed as follows:
(a)Total Sales Margin Variance: Actual Profit - Budgeted Profit.
Actual Profit= Actual quantity sold Actual profit per unit.
Budgeted Profit= Budgeted quantity of Sales ¥ Budgeted profit per unit.
(b) Sales Margin Variance due to Selling Price: This variance arises due to the difference between actual selling price and standard selling price. This variance is calculated as:
Actual Quantity (Actual Price- Standard Price)
(c) Sales Margin Variance due to Volume. This Variance arises due to the difference between actual quantity of sales and budgeted quantity of sales. It is calculated as:
Standard Profit per Unit (Actual Quantity of Sales- Standard Quantity of Sales)

12.10 SELF ASSESSMENT QUESTIONS:

1. What is standard costing?
2. Define variance analysis
3. How is material variance calculated?
4. What is the purpose of labour variance analysis?
5. Discuss the of setting standards
6. Explain the advantages and disadvantages of standard costing
7. Briefly explain the classification of variances
8. Discuss the types of standards
9. Analyze the role of variance analysis in identifying areas of cost improvement.
10. Apply standard costing and variance analysis to a real- world business scenario and discuss the results.

12.11 SUGGESTED READINGS:

1. Management Accounting Principles & Practices -Shashi K. Gupta, R.K.Sharma, Kalyani Publishers
2. Management Accounting – R.S.N. Pillai, Bhagavathi, S Chand Publications
3. Management Accounting- Dr. K.L. Gupta, Sahitya Bhawan Publications

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LESSON-13
BUDGETARY CONTROL

OBJECTIVE:

After studying **budget and budgetary control**, you should be able to:

- understand the concept of budgeting
- differentiate types of budgets
- link budgets with strategic planning
- Evaluate Performance Using Budgets

STRUCTURE:

13.1 INTRODUCTION:

Every business enterprise needs the use of control techniques for surviving in the highly competitive and changing economic world. There are various control devices in use. Budgets are the most important tool of profit planning and control. They also act as an instrument of co-ordination.

13.2 MEANING OF BUDGET, BUDGETING & BUDGETARY CONTROL:

Budget:
A budget is a financial plan that outlines expected income and expenses over a specific period. It serves as a tool for planning and controlling financial activities to achieve organizational or personal financial goals.

Definition According to CIMA, Official terminology, A budget is a financial and/ or quantitative statement prepared prior to a defined period of time, of the policy to be pursued during that period for the purpose of attaining a given objective.

Budgeting:
Budgeting is the process of preparing, implementing, and monitoring a budget. It involves estimating revenues, forecasting expenses, and allocating financial resources to different activities to ensure effective financial management.

Budgetary Control:
Budgetary control is the process of comparing actual financial performance with budgeted figures to identify variances, analyze reasons for deviations, and take corrective actions. It helps organizations stay on track with their financial goals and improves efficiency.
Definition According to Brown and Howard, Budgetary control is a system of controlling costs which includes the preparation of budgets, co-ordinating the department and establishing responsibilities, comparing actual performance with the budgeted and acting upon results to achieve maximum profitability.

13.3 OBJECTIVES OF BUDGETARY CONTROL:

Budgeting is a forward planning. It serves basically as a tool for management control; it is rather a pivot of any effective scheme of control. The objectives of budgeting may be summarized as follows:

1. Planning: Planning has been defined as the design of a desired future position for an entity and it rests on the belief that the future position can be attained by uninterrupted management action. Detailed plans relating to production, sales, raw-material requirements, labour needs, capital additions, etc. are drawn out. By planning many problems estimated long before they arise and solution can be thought of through careful study. In short, budgeting forces the management to think ahead, to foresee and prepare for the anticipated conditions. Planning is a constant process since it requires constant revision with changing conditions.

2. Co-ordination: Budgeting plays a significant role in establishing and maintaining coordination. Budgeting assists managers in coordinating their efforts so that problems of the business are solved in harmony with the objectives of its divisions. Efficient planning and business contribute a lot in achieving the targets. Lack of co-ordination in an organization is observed when a department head is permitted to enlarge the department on the specific needs of that department only, although such development may negatively affect other departments and alter their performances. Thus, co-ordination is required at all vertical as well as horizontal levels.

3. Measurement of Success: Budgets present a useful means of informing managers how well they are performing in meeting targets they have previously helped to set. In many companies, there is a practice of rewarding employees on the basis of their accomplished low budget targets or promotion of a manager is linked to his budget success record. Success is determined by comparing the past performance with previous period's performance.

4. Motivation: Budget is always considered a useful tool for encouraging managers to complete things in line with the business objectives. If individuals have intensely participated in the preparation of budgets, it acts as a strong motivating force to achieve the goals.

5. Communication: A budget serves as a means of communicating information within a firm. The standard budget copies are distributed to all management people provide not only sufficient understanding and knowledge of the programmes and guidelines to be followed but also give knowledge about the restrictions to be adhered to.

6. Control: Control is essential to make sure that plans and objectives laid down in the budget are being achieved. Control, when applied to budgeting, as a systematized effort is to keep the management informed of whether planned performance is being achieved or not.

13.4 STEPS FOR ESTABLISHING BUDGETARY CONTROL:

The following steps are necessary for establishing a good budgetary control system:
1. Determining the objectives to be achieved, over the budget period, and the policy or policies that might be adopted for the achievement of these objectives.
2. Determining the activities that should be undertaken for the achievement of the objectives.
3. Drawing up a plan or a scheme of operation in respect of each class of activity, in quantitative as well as monetary terms for the budget period.
4. Laying out a system of comparison of actual performance by each person, or department with the relevant budget and determination of causes for the variation, if any.
5. Ensuring that corrective action will be taken where the plan has not been achieved and, if that is not possible, for the revision of the plan.

In brief, it is a system to assist management in the allocation of responsibility and authority, to provide it with aid for making, estimating and planning for the future and to facilitate the analysis of the variation between estimated and actual performance.

In order to ensure effective functioning of budgetary control, it is necessary that the firm should develop a proper basis of measurement or standards with which to evaluate the efficiency of operations, i.e., the firm should have in operation, a system of standard costing.

The organisation should be so integrated that all lines of authority and responsibility are properly defined. This is essential since the system of budgetary control postulates separation of functions and division of responsibilities and thus requires that the organisation shall be planned in such a manner that everyone, from the Managing Director down to the Shop Foreman, will have his duties properly defined.

13.5 ADVANTAGES OF BUDGETARY CONTROL:

The advantages of budgetary control are:

- **Participation:** Budgetary control allows the employees of the organization to participate in the process and contribute their maximum effort towards achieving the goal.
- **Top Managementsupport:** Budgetary control is a process that works mainly with the assistance of the top management like the directors, managers, etc. Therefore, if the management is supportive and cooperative, this system of budget control becomes easier and more efficient.
- **Reduce cost:** It manages the cost of production of the company by effective planning of financial activities and ensures that the resources are being utilized properly so that there is minimum wastage. This brings down the cost of operation to the organization.
- **Maximization of Profit:** Through planned goals and proper coordination, the organization functions efficiently as all the activities are adequately performed and the

expenditures and capital are put to use correctly with the help of the process of budgetary control.

- **Specific aims:** The process of budgetary control makes the goal of the organization clearer and easier to accomplish. The expenses and resources are well allocated into areas required and help avoid unnecessary wastage in terms of time and money. Therefore, the improved control over activities and finance makes the goal more definite for the organization.
- **Tool for measuring performance:** The budgetary control acts as a tool for measuring performance. It helps compare the result achieved by the organization and the objectives that were set earlier while planning. It detects the areas that need attention and provides assistance or solutions.

13.6 LIMITATIONS OF BUDGETARY CONTROL:

While budgetary control is important in achieving the goal set by the organization but there are also a number of limitations to it. Some of them are as follows:

- **Limited to the financial aspect:** The concept or process of budgetary control solely focuses on only the financial outlook of the organization. The other issues like customer satisfaction, employee benefit, safety issues, etc. are disregarded.
- **No stability:** It is almost impossible to have a stable business environment. Considering that the business condition remains constant, the process of budgetary control may not be accurate for a lot of the financial decisions. The organization can find it difficult to work or adjust according to the changes it faces.
- **Inflexibility:** Budgetary control depends on specific capital and limited time. However, this can create inflexibility in the organization as the employees might not be ready for a change and keep new ideas and projects to themselves, which would have benefited the organization.
- **Dependent on assumptions:** Budgets are often dependent on financial aspects like expenses, revenue, and future profits. Since these data are mostly based on previous years' performances, they might not be helpful or accurate for future reference. If any of those assumptions turn out to be wrong, the organization can suffer some kind of loss or damage.
- **Time-consuming:** Making a detailed budget report can take up a lot of time and effort that otherwise would have been used for other important activities such as strategic planning, customer service, and product development. Though budgeting helps reduce the wastage of resources, a long process of monitoring, planning, and adjusting can exhaust a lot of resources too.

13.7 COMPONENTS OF BUDGETARY CONTROL SYSTEM:

The policy of a business for a defined period is represented by the master budget, the detailed components of which are given in a number of individual budgets called functional budgets. These functional budgets are broadly grouped under the following heads:

1. **Physical budgets**: Those budgets which contain information in quantitative terms such as the physical units of sales, production etc. This may include quantity of sales, quantity of production, inventories, and manpower budgets are physical budgets.
2. **Cost budgets:** Budgets which provides cost information in respect of manufacturing, administration, selling and distribution, etc. for example, manufacturing costs, selling

costs, administration cost, and research and development cost budgets are cost budgets.

3. **Profit budgets**: A budget which enables the ascertainment of profit. For example, sales budget, profit and loss budget, etc.
4. **Financial budgets:** A budget which facilitates in ascertaining the financial position of a concern, for example, cash budgets, capital expenditure budget, budgeted balance sheet etc.

13.8 PREPARATION OF BUDGETS:

1. Defining business or organisational objectives: A budget is a plan for the achievement of certain organisational objectives. It is therefore desirable that these objectives are defined precisely. The organisational objectives should be written down; the areas of control demarcated; and items of revenue and expenditure to be covered by the budget clearly stated. This will give a clear understanding of the plan and its scope to all those who must cooperate to make it successful.

2. Identification of the key budget factor: There are usually one or two key budget factors (sometimes there may be more than two) which set a limit to the total activity. For instance, in India sometimes non-availability of power does not allow production to increase in spite of heavy demand. Similarly, lack of demand may limit production. Such a factor is known as key factor. For proper budgeting, it must be identified and its influence on production on sales estimated properly while preparing the budget.

3. Appointment of controller/officer: Formulation of a budget usually requires service of a whole time senior executive. He must be assisted in this work by a Budget Committee, consisting of all the heads of departments along with the Managing Director as the Chairman. The Budget Controller/Officer is responsible for coordinating and development of budget programmes and preparing the manual of instruction, known as **Budget manual.**

4. Budget Manual: The budget manual is a booklet specifying the objectives of an organisation in relation to its strategy. The budget is made to decide how much an organisation would earn and spend and in what manner. In the budget, the organisation sets its priorities too.

CIMA, London, defines budget manual as, "A document which sets out the responsibilities of the persons engaged in, the routine of, and the forms and records required for, budgetary control."

Effective budgetary planning relies on the provision of adequate information to the individuals involved in the planning process. Many of these information needs are contained in the budget manual. A budget manual is a collection of documents that contains key information for those involved in the planning process.

Contents of a budget manual

Typical budget manual may include the following:

(i) A statement regarding the objectives of the organisation and how they can be achieved through budgetary control;

(ii) A statement about the functions and responsibilities of each executive, both regarding preparation and execution of budgets;

(iii) Procedures to be followed for obtaining the necessary approval of budgets. The authority of granting approval should be stated in explicit terms. Whether, one two or more signatures are required on each document should be clearly stated;
(iv) A form of organisation chart to show who are responsible for the preparation of each functional budget and the way in which the budgets are interrelated.
(v) A timetable for the preparation of each budget.
(vi) The manner of scrutiny and the personnel to carry it out;
(vii) Reports, statements, forms and other record to be maintained;
(viii) The accounts classification to be employed. It is necessary that the framework within which the costs, revenue and other financial accounts are classified must be identical both in the accounts and budget department;
(ix) The reporting of the remedial action;
(x) The manner in which budgets, after acceptance and issuance, are to be revised or the matter amended these are included in budgets and on which action can be taken only with the approval of top management
(xi) This will prevent the formation of a ‘bottleneck’ with the late preparation of one budget holding up the preparation of all others.
(xii) Copies of all forms to be completed by those responsible for preparing budgets, with explanations concerning their completion.
(xiii) A list of the organization’s account codes, with full explanations of how to use them.
(xiv) Information concerning key assumptions to be made by managers in their budgets, for example the rate of inflation, key exchange rates, etc.

5. Budget period: The period covered by a budget is known as budget period. There is no general rule governing the selection of the budget period. In practice the Budget Committee determines the length of the budget period suitable for the business. Normally, a calendar year or a period co-terminus with the financial year is adopted. The budget period for the calendar or financial year is then divided into shorter periods; it may be monthly or quarterly or for such periods as coincide with period of trading activity of the business.

6. Standard of activity or output: For preparing budgets for the future, past statistics, though important, cannot be completely relied upon. The past usually represents a combination of good and bad factors. Therefore, though results of the past should be studied, but these should only be applied when there is a likelihood of similar conditions repeating in the future. Also, while setting the targets for the future, it must be remembered that in a progressive business, the achievement of a year should normally exceed those of earlier years. Therefore, what was good in the past is only fair for the current year and should work for much better in the future.

In budgeting, fixing the budget of sales, expenses, and of capital expenditure is important since these budgets determine the extent of development activity. For budgeting sales, one must consider the trend of economic activity of the country, recommendations of salesmen, customers and employees, effect of price changes on sales, the provision for advertisement campaign plan capacity etc.

13.9 CLASSIFICATION AND TYPES OF BUDGET:

The budgets are usually classified according to their nature. The following are the types of budgets which are commonly used.

(A) Classification According to Time
1. Long-term budgets.
2. Short-term budgets.
3. Current budgets.

(B) Classification based on Functions
1. Operating Budgets
2. Financial Budgets
3. Master Budget

(**C) Classification based on Flexibility**
1. Fixed budget.
2. Flexible budget

(A) Classification According to Time
1. Long Term Budgets. The budgets are prepared to depict the long-term planning of the business. The period of long-term budgets varies between five to ten years. Long-term planning is done by the top-level management; it is not generally known to lower levels of management. Long-time budgets are prepared for some sectors of the concern such as capital expenditure, research, and development, long-term finances, etc. These budgets are useful for those industries where the gestation period is long le, machinery, electricity, engineering, etc.
2. Short-term Budgets. These budgets are generally for one or two years and are in the form of monetary terms. The consumer goods industries like sugar, cotton, textile, etc. use short-term budgets.
3. Current Budgets. The period of current budgets is generally of months and weeks. These budgets relate to the current activities of the business. According to 1. C . W.A. London, "Current budget is a budget which is established for use over a short period and is related to current conditions."

(B) Classification based on Functions
1. Operating Budgets. These budgets relate to the different activities or operations of a firm. The number of such budgets depends upon the size and nature of the business. The commonly used operating budgets are:
(a) Sales Budget
(b) Production Budget
(c) Production Cost Budget
(d) Purchase Budget
(e) Raw Material Budget
(f) Labour Budget
(g) Plant Utilisation Budget
(h) Manufacturing Expenses or Works Overhead Budget
(i) Administrative and Selling Expenses, Budget, etc.

The operating budget for a firm may be constructed in terms of programs or responsibility areas, and hence may consist of:
(i) Programme Budget, and
(ii) Responsibility Budget.

(i) Programme Budget: It consists of expected revenues and costs of various products or projectsthat are termed the major programs of the firm. Such a budget can be prepared for each product line or project showing revenues, costs, and the relative profitability of the various programs. Program budgets are, thus, useful in locating areas where efforts may be required to reduce costs and increase revenues. They are also useful in determining imbalances and inadequacies in programs so that corrective action may be taken in the future.

(ii) Responsibility Budget. When the operating budget of a firm is constructed in terms of responsibility areas it is called the responsibility budget. Such a budget shows the plan in terms of the persons responsible for achieving it. It is used by the management as a control device to evaluate the performance of executives who are in charge of various cost centers. Their performance is compared to the targets (budgets), set for them, and proper action is taken for adverse results, if any. The kinds of responsibility areas depend upon the size and nature of business activities and the organizational structure. However, responsibility areas may be classified under three broad categories:
(a) Cost/Expense Centre
(b) Profit Centre
(c) Investment Centre.

2. Financial Budgets. Financial budgets are concerned with cash receipts and disbursements, working capital, capital expenditure, financial position, and results of business operations. The commonly used financial budgets are:
(a) Cash Budget
(b) Working Capital Budget
(c) Capital Expenditure Budget
(d) Income Statement Budget
(e) Statement of Retained Earnings Budget

3. Master Budget. Various functional budgets are integrated into the master budget. This budget is prepared by the ultimate integration of separate functional budgets. According to I.C.W.A. London, "The Master Budget is the summary budget incorporating its functional budgets". The master budget is prepared by the budget officer and it remains with the top-level management. This budget is used to coordinate the activities of various functional departments and also to help as a control device.

(C) Classification based on flexibility
1. Fixed Budget: The fixed budgets are prepared for a given level of activity, the budget is prepared before the beginning of the financial year. If the financial year starts in January then the budget will be prepared a month or two earlier, i.e, November, or December. The changes in expenditure arising out of the anticipated changes will not be adjusted in the budget. There is a difference of about twelve months between the budgeted and actual figures. According to I.C.W.A. London, "Fixed budget is a budget which is designed to remain unchanged irrespective of the level of activity actually attained." Fixed budgets are suitable under static conditions. If sales, expenses, and costs can be forecasted with greater accuracy then this budget can be advantageously used.

2. Flexible Budgets: A flexible budget consists of a series of budgets for different level of activity. It, therefore, varies with the level of activity attained. A flexible budget is prepared after taking into consideration unforeseen changes in the conditions of the business. A flexible budget is defined as a budget which by recognizing the difference between fixed, semi-fixed and variable cost is designed to change in relation to the level of activity.

The flexible budgets will be useful where the level of activity changes from time to time. When the forecasting of demand is uncertain and the undertaking operates under conditions of shortage of materials, labor etc., then this budget will be more suited.

DIFFERENCE BETWEEN FIXED AND FLEXIBLE BUDGETS:

Basis of differences	**Fixed budget**	**Flexible budget**
1. Rigidity	A fixed budget remains the same irrespective of changed situations. It remains inflexible even if the volume of business is changed.	A flexible budget is recast to suit the changed circumstances. Suitable adjustments are made if the situation so demands.
2. Conditions	A fixed budget assumes that conditions will remain constant.	This budget is changed if the level of activity varies.
3. Cost Classification	In Fixed budgets, costs are not classified according to their nature.	The costs are studied as per their, i.e., fixed , variable, semi-variable
4. Changes in Volume	If the level of activity changes then budgeted and actual results cannot be compared because of change in basis.	The budgets are redrafted as per the changed volume and a comparison between budgeted and actual figures will be possible.
5. forecasting	Forecasting accurate results is difficult.	Flexible budgets clearly show the impact of expenses on operations and they help in making accurate forecasts.
6. Cost ascertainment	Under changed circumstances, costs cannot be ascertained.	The costs can be easily ascertained under different levels of activity. This helps in fixing prices.

SOME IMPORTANT BUDGETS

1. CASH BUDGET

A cash budget is an estimate of cash receipts and disbursements during a future period of time. It proceeds various other budgets like materials budgets and research and development budget. "The cash budget is an analysis of flow of cash in a business over a future, short or long period of time. It is a forecast of expected cash intake and outlay"

The cash receipts from various sources are anticipated. The estimated cash collections for sales, debts, bills receivables, interests, dividends and other incomes and sale of investments and other assets will be taken into account. The amounts to be spent on purchase of materials, payment to creditors and meeting various other revenue and capital expenditure needs should be considered. Cash forecasts will include all possible sources from which cash will be received and the channels in which payments are to be made so that a consolidated cash position is determined.

The cash budget should be co-ordinate with other activities of the business. The functional budgets may be adjusted according to the cash budget. The available funds should be fruitfully used and the concern should not suffer for want of funds.

2. ZERO-BASE BUDGETING (ZBB)

Zero base budgeting is the latest technique of budgeting and it has an increased use as a managerial tool. This technique was first used in America in 1962. The former President of America, Jimmy Carter used this technique when he was the Governor of Gorgia for controlling state expenditure.

As the name suggests, it is starting from a 'scratch'. The normal technique of budgeting is to use previous year's cost levels as a base for preparing this year's budget. This method carries previous year's inefficiencies to the present year because we take last year as a guide and decide 'what is to be done this year when this much was the performance of the last year'. In zero base budgeting every year is taken as a new year and previous year is not taken as a base.

The budget for this year will have to be justified according to present situation. Zero is taken as a base and likely future activities are decided according to the present situations. In the words of Peter A Pyher, "A planning and budgeting process which requires each manager to justify his entire budget request in detail from scratch (Hence zero base) and shifts the burden of proof to each manager to justify why he should spend money at all. The approach requires that all activities be analysed in 'decision packages' which are evaluated by systematic analysis and ranked in order of importance."

In zero-base budgeting a manager is to justify why he wants to spend. The preference of spending on various activities will depend upon their justification and priority for spending will be drawn. It will have to be proved that an activity is essential and the amounts asked for are really reasonable taking into account the volume of activity.

3. CAPITAL EXPENDITURE BUDGET

The budget lays down the amount of estimated expenditure to be incurred on fixed assets during the budget period. As the amount involved in capital expenditure is usually high this requires careful attention The budget lays down the amount of estimated expenditure to be incurred on fixed assets during the of the top management. The budget is based upon the annual forecasts of capital expenditure of various divisions or departments. Each division or department of an organisation sends the annual forecast of capital expenditure of its own department to Capital Expenditure Sanction Committee. The Committee after considering the profitability of the capital expenditure sanctions the expenditure and then the amount is incorporated in the budget.

13.10 ILLUSTRATIONS:

IILUSTRATION 1: Draw up a flexible budget for overhead expenses on the basis of the following data and determine the overhead rates at 70%, 80%and 90% plant capacity.

Particulars	Capacity Level (80% (₹)
Variable Overheads:	
Indirect Labour	12,000
Stores including Spares	4,000
Semi-variable Overheads	
Power (30% Fixed, 70% Variable)	20,000
Repairs and Maintenance (60% Fixed, 40% Variable)	2,000
Fixed Overheads :	
Depreciation	11,000
Insurance	3,000
Salaries	10,000
Total Overheads	62,000
Estimated Direct Labour Hours	1,24,000 hrs.

SOLUTION

FLEXIBLE BUDGET

Capacity	70% (₹)	80% (₹)	90% (₹)
A. Variable Costs			
Indirect Materials	10,500	12,000	13,500
Stores including Spares	3,500	4,000	4,500
B. Semi-variable Overheads			
Power	6,000	6,000	6,000
Variable	12,250	14,000	15,750
Repairs and Maintenance : Fixed	1,250	1,200	1,200
Variable	700	800	900
C. Fixed Overheads :			
Depreciation	11,000	11,000	11,000
Insurance	3,000	3,000	3,000
Salaries	10,000	10,000	10,000
D. Total Overheads	58,150	62,000	65,850
E. Estimated Direct Labour Hours	1,08,500	1,24,000	1,39,500
F. Direct Labour Hour Rate (Overheads / Labour)	0.536	0.500	0.472

IILUSTRATION 2 : The expenses budgeted for production of 10000 units in a factory are furnished as follows:

	Per Unit ₹
Materials	70
Labour	25
Variable Overheads	20
Fixed Overheads (₹ 1,00,000)	10
Variable Expenses (Direct)	5
Selling Expenses (10% Fixed)	13
Distribution Expenses (20% Fixed)	7
Administrative Expenses (₹ 50,000) (100% fixed)	5
Total	155

Prepare a budget for production of:
6000 units, 8000 units and 10,000 units showing variable cost, fixed cost in account and cost per unit at each level of production.

SOLUTION:

FLEXIBLE PRODUCTION COST BUDGET

Units	6,000		8,000		10,000	
	Per Unit	₹	Per Unit	₹	Per Unit	₹
Variable Costs :						
Materials	70.00	4,20,000	70.00	5,60,000	70.00	7,00,000
Labour	25.00	1,50,000	25.00	2,00,000	25.00	2,50,000
Variable Overheads	20.00	1,20,000	20.00	1,60,000	20.00	2,00,000
Variable Expenses	5.00	30,000	5.00	40,000	5.00	50,000
Selling Expenses	11.70	70,200	11.70	93,600	11.70	1,17,000
Distribution Expenses	5.60	33,600	5.60	44,800	5.60	56,000
A. Total Variable Cost	137.30	8,23,800	137.30	13,98,400	137.30	13,73,000
Fixed Costs :						
Selling Expenses	2.17	13,000	1.63	13,000	1.30	13,000
Distribution Expenses	2.33	14,000	1.75	14,000	1.40	14,000
Administrative Expenses	8.33	50,000	6.25	50,000	5.00	50,000
Fixed Overheads	16.67	1,00,000	12.50	1,00,000	10.00	1,00,000
B. Total Fixed Costs	29.50	1,77,000	22.13	1,77,000	17.70	1,77,000
C. Total Costs [A + B]	166.80	10,00,800	15.43	12,75,400	155.00	15,50,000

IILUSTRATION 3

From the following information prepare a cash budget for the 3 months of June and July

Month	Credit sales Rs	Credit purchase Rs	Manufacturing Overheads Rs	Selling overheads Rs
April	80,000	60,000	2,000	3,000
May	84,000	64,000	2,400	2,800
June	90,000	66,000	2,600	2,800
July	84,000	64,000	2,000	2,600

Additional Information:

1. Advance tax of Rs 4,000 payable in June and in December 1994
2. Credit period allowed to debtors is two months
3. Credit period allowed by the vendors or suppliers is one month
4. Delay in the payment of other expenses one month
5. Opening balance of cash on 1st June is estimated as Rs.20,000/-

SOLUTION:

CASH BUDGET

Particulars	June Rs	July Rs
Opening balance	20,000	**26,800**
Receipts: Sales	80,000	84,000
Total Cash Receipts I	1,00,000	1,10,800
Payments: Purchases	64,000	66,000
Manufacturing Overheads	2,400	2,600
Selling Overheads	2,800	2,800
Tax payable	4,000	--------------
Total Payments II	73,200	71,400
Balance I-II	**26,800**	**39,400**

13.11 SELF ASSESSMENT QUESTIONS:

1. What is budget?
2. Define budgetary control
3. Explain the types of budget
4. How is budget prepared?
5. What is the purpose of budgetary control
6. Discuss the components of budgetary control system
7. Distinguish between fixed and flexible budget
8. Describe the steps involved in budgetary control technique
9. Describe the organization for the preparation of budgets. Bring out clearly the role of key factor in budgeting
10. Examine the limitations of budget and budgetary control to a real- world business scenario and discuss the results.

13.12 SUGGESTED READINGS:

1. Management Accounting- Dr. S. P. Gupta. Dr. K. L. Gupta, Sahitya bhawan publications – Agra
2. Management Accounting - Prof.M.L. Agarwal, DR. K. L. Gupta, Sahitya bhawan publications – Agra
3. Management accounting principles and practice- Shashi K. Gupta, R.K.Sharma- Kalyani publishers

Dr.S.Srinivasa Rao

LESSON- 14
STANDARD COSTING AND VARIANCE ANALYSIS

OBJECTIVE:

After studying this unit, you will be able to-
- understand the meaning of standard costing and its objectives
- know the advantages and disadvantages of standard costing in an organisation
- familiar with the concept of variance analysis and its classification

STRUCTURE:

14.1 INTRODUCTION:

One of the prime functions of management accounting is to facilitate managerial control and the important aspect of managerial control is cost control. The efficiency of management depends upon the effective control of costs. Therefore, it is very important to plan and control cost. Standard costing is one of the most important tools, which helps the management to plan and control cost of business operations. Under standard costing, all costs are pre-determined and pre determined costs are then compared with the actual costs. The difference between pre-determined costs and the actual costs is known as variance which is analysed and investigated to the reasons. The variances are then reported to management for taking remedial steps so that the actual costs adhere to predetermined costs.

14.2 STANDARD COSTING – MEANING:

- Standard costing is a cost accounting method where predetermined costs (standards) for materials, labor, and overhead are established, then compared to actual costs to identify variances and improve cost control and efficiency.
- Standard Costing is such a technique wherein costs are fixed well in advance and compared to the actual costs. Then the reasons of variances will be taken into consideration o avoid further adverse cost variations. Standard cost is a technique used for controlling cost and fixing responsibility of inefficient persons. In this technique costs are determined for various activities. These are compared to actual performances if adverse variations are found. Further, these are taken seriously for making corrective actions.
- Standard costing uses estimated costs completely to calculate all three elements of product cost: direct materials, direct labour and overhead. Managers use standard costs for planning and control in the management process such as planning for budget development: product costing, pricing and distribution.

14.3 DEFINITIONS OF STANDARD COSTING:

1. According to the chartered Institute of Management Accountants (C.I.M.A) London, "Standard cost is the predetermined cost based on technical estimates for materials, labour and overhead for a selected period of time for a prescribed set of working conditions."

2. H. J. Weldon: "Standard costs are pre-determined or forecast estimates of the cost to manufacture a single unit or a number of units of product, during a specific immediate future period."

3. I.C.N.T.A. London: "The preparation and use of standard costs, their comparison with actual costs and the analysis of variances to their causes and points of incidence."

Here are several examples of situations in which standard costing could be used:

- ***Automobile manufacturing***. A car manufacturer can use standard costing to estimate the cost of producing each vehicle model by setting standard costs for components like engines, tires, and electronics, as well as labor and overhead. By comparing these standards to actual costs, management can identify variances and investigate reasons for higher-than-expected expenses, such as increased material costs or inefficient labor usage.

- ***Clothing and apparel manufacturing***. A textile company producing t-shirts at scale can use standard costing to set expected costs for fabric, dyes, labor, and overhead per unit. This practice simplifies budgeting and cost control by providing a baseline to compare against actual production costs, making it easier to identify inefficiencies.

- ***Fast food restaurants***. A fast-food chain can implement standard costing to estimate the cost of ingredients, packaging, and preparation time for each menu item. For example, the standard cost for a burger might include specific amounts of meat, buns, and condiments. Analyzing variances between standard and actual costs helps manage waste and control food costs.

14.4 OBJECTIVES OF STANDARD COSTING:

14.4.1 Cost Control: The most important objective of standard cost is to help the management in cost control. It can be used as a yardstick against which actual costs can 4 be compared to measure efficiency. The management can make comparison of actgual costs with the standard costs at periodic intervals and take corrective action to maintain control over costs.

14.4.2. Management by Exception: The second objective of standard cost is to help the management in exercising control over the costs through the principle of exception. Standard cost helps to prescribe standards and the attention of the management is drawn only when the actual performance is deviated from the prescribed standards. It concentrates its attention on variations only.

14.4.3. Develops Cost Conscious Attitude: Another objective of standard cost is to make the entire organisation cost conscious. It makes the employees to recognise the importance of efficient operations so that costs can be reduced by joint efforts.

14.4.4. Fixation of Prices: To help the management in formulating production policy and helps in fixing the price quotations as well as in submitting tenders of various products. This can be done with accuracy with standard cost than the actual costs. It also helps in formulating production policies. Standard costs remove the reflection of abnormal price fluctuations in production planning.

14.4.5. Fixing Prices and Formulating Policies: Another object of standard cost is to help the management in determining prices and formulating production policies. It also helps the management in the areas of profit planning, product-pricing and inventory pricing etc.

14.4.6. Management Planning: Budget planning is undertaken by the management at different levels at periodic intervals to maximize the profit through different product mixes. For this purpose it is more convenient using standard costing than actual costs because it is done on scientific and rational manner by taking into account all technical aspects.

14.5 ADVANTAGES OF STANDARD COSTING:

Here are the main advantages for companies that use standard costing.

i. Improved Cost Control

Standard costing is a beacon for cost control, establishing a clear, predefined benchmark for organizational expenses. It enables a meticulous comparison between actual and standard costs, highlighting areas where spending overshoots budgeted amounts. This insight empowers organizations to identify and rectify excessive expenditures swiftly. It ensures financial discipline and enhances cost efficiency.

ii. Better Performance Evaluation
This system is instrumental for comprehensive performance assessment. It facilitates a detailed analysis of cost variances, offering a granular view of production efficiency. Managers can leverage this data to pinpoint operational bottlenecks, implement strategic improvements, and optimize production processes. This will streamline and make organizational operations cost-effective.

iii. Budgeting and Planning
Standard costing is a linchpin in budgeting and planning, offering reliable cost estimates for comprehensive financial planning. It aids in the meticulous preparation of budgets, ensuring that financial resources are allocated optimally. This proactive approach to financial planning enables organizations to navigate fiscal challenges with agility and foresight, bolstering financial stability.

iv. Better Pricing
It plays a pivotal role in the strategic pricing of products and services. Standard costing enables businesses to formulate pricing strategies that balance competitiveness and profitability by providing a clear insight into the cost structure. This informed approach to pricing enhances market position while ensuring sustained revenue generation.

v. Identifying Inefficiencies
Standard costing acts as a magnifying glass, revealing operational inefficiencies and suboptimal resource utilization. It guides organizations in implementing targeted improvements, ensuring that resources are leveraged to their fullest potential. This focus on operational excellence drives enhanced productivity, cost reduction, and heightened profitability.

vi. Decision Making
It is a cornerstone for informed managerial decision-making. Standard costing offers a detailed breakdown of costs, equipping managers with the data needed to make strategic decisions regarding production scaling, cost management, and operational enhancements. This data-driven approach fortifies the organization's financial health and long-term sustainability.

14.6 DISADVANTAGES OF STANDARD COSTING:

i. Inflexibility: It is the assumption that the same activity and production process will repeat every time. This approach may not be suitable for businesses that regularly adjust production processes due to changes in demand or new product introduction.

ii. Lack of relevance: The cost data used in standard costing may not reflect current costs, leading to incorrect pricing and decision-making.

iii. Lack of incentives for cost control: When actual costs are consistently higher than the standard, management may not see the need to control costs because they already account for these higher costs in the budget.

iv. Complexity: Standard costing can be complex to implement and maintain, especially for businesses with multiple products and cost centres.

v. Emphasis on budgeting: Standard costing strongly emphasizes budgeting, which can detract from other important aspects of cost accounting, such as cost analysis and cost control.

vi. Resistance to change: Once a standard costing system is established, there may be resistance to changing it. Even if it is no longer relevant or suitable for the business.

14.7 STANDARD COSTING AND VARIANCE ANALYSIS:

Standard costing and variance analysis are used to control operations and evaluate performance. Managers set standards for direct material prices and quantities, direct labour rates and efficiency and manufacturing overhead. Variances are calculated by comparing actual costs to standards, which helps managers identify issues and take corrective actions. Performance measurement provides feedback to improve efficiency and sustain efforts.

14.8 VARIANCE ANALYSIS:

The object of standard costing is to exercise cost control and cost reduction. The performance targets with actual performances will enable with control system. The management by exception is possible through the efficiency in use of material and labour. The deviations between standard cost, profits or sales and actual costs, profits or sale respectively will be known as variances.

The variance may be favourable or unfavorable (Adverse). If the actual cost is less than the standard cost it is as known as favourable and actual profit or sales are more than the standard profit or sales then it is also indicated as favourable. If actual cost is more than the standard cost and actual profit or sales is less than the standard profit or sales then it should be indicated as unfavorable which is adverse. It should be denoted with the letter (A). The favourable answer should be denoted with the letter (F).

14.9 CLASSIFICATION OF VARIANCES:

The variance may be classified into following categories:

➢ **Direct Material Variance:** Direct material variance is the difference between the standard cost of direct materials and the actual cost of those materials used in production. The formula is: Total Direct Material Variance = (Actual Quantity * Actual Price) - (Standard Quantity * Standard Price).

➢ **Direct labour Variance:** Direct labor variance refers to the difference between the actual direct labor cost incurred and the standard direct labor cost expected for the actual production achieved. The formula for direct labor rate variance is (Actual Rate - Standard Rate) x Actual Hours.

➢ **Sales or Profit Variance:** Sales and profit variances are both used in business to track performance, but they focus on different aspects. Sales variance measures the difference between actual and budgeted sales, while profit variance compares actual profits to budgeted profits. The basic formula for sales variance is Actual Sales - Budgeted Sales. For profit variance, the formula is Actual Profit - Budgeted Profit.

➢ **Overhead cost variance:** Overhead cost variance is the difference between the actual overhead costs incurred and the standard overhead costs that should have been incurred for the actual production level. The total overhead cost variance is calculated by subtracting the actual overhead costs from the standard overhead costs.

14.10 CONTEMPORARY DEVELOPMENTS:

The latest trends in standard costing and variance analysis involve integrating technology, focusing on real-time data, and incorporating sustainability considerations. Automation and AI are enhancing accuracy, while real-time tracking provides dynamic monitoring of costs.
Here's a more detailed look at the key trends:

1. Technology Integration
a. Automation and AI:AI-powered systems are being used to automate tasks like cost estimation and variance analysis, improving accuracy and efficiency.
b. Real-Time Costing: Businesses are shifting towards real-time tracking tools to monitor costs as they occur, reducing reliance on static standards and providing a more dynamic view of performance.
c.ERP Integration: Standard costing is increasingly integrated with Enterprise Resource Planning (ERP) systems, streamlining data collection, reporting, and analysis.

2. Focus on Sustainability and ESG
a. Incorporating Environmental and Social Costs: Companies are recognizing the importance of sustainability and are incorporating environmental and social costs into their standard costing systems to align with ESG goals.

3. Enhanced Analysis and Reporting
a. Advanced Variance Analysis: Businesses are using more sophisticated variance analysis techniques to identify the root causes of variances and take corrective action.
b. Data Visualization and Dashboards: Tools for visualizing data and creating dashboards are being used to provide a more comprehensive view of cost performance.

4. Increased Emphasis on Continuous Improvement:
a. Regular Review and Updates: Standard costs are regularly reviewed and updated to reflect changes in market conditions, production processes, and industry best practices.
b. Focus on Performance Management: Standard costing is used as a tool for performance management, helping organizations to identify areas for improvement and track progress towards their goals.

5. Adapting to Changing Business Environments
a. Flexible Budgeting: Businesses are using flexible budgeting techniques to account for changes in volume and other factors that may impact costs.
b. Scenario Planning: Standard costing is being used to support scenario planning, helping organizations to prepare for potential changes in the business environment.

14.11 SUMMARY:

Standard costing is a cost accounting method where pre-determined costs (standards) for materials, labor, and overhead are established. These standards are then compared with actual costs to identify variances and improve cost control and efficiency. Variance analysis helps in identifying deviations, which can be either favorable (F)or unfavorable (A)**,** allowing management to take corrective actions.

14.12 TECHNICAL TERMS:

- **Standard Cost:** The estimated or pre-determined cost of a product or service.
- **Variance:** The difference between actual cost and standard cost.
- **Favorable Variance (F):** When actual cost is lower than standard cost.
- **Unfavorable/Adverse Variance (A):** When actual cost is higher than standard cost.
- **Management by Exception:** A principle where only significant deviations from standards are investigated.
- **Overhead Cost:** Indirect costs related to production, such as rent, utilities, and depreciation.

14.13 SELF-ASSESSMENT QUESTIONS:

1. What is standard costing?
2. How does standard costing help in cost control?
3. What are the four main types of variances?
4. How does variance analysis help in performance evaluation?
5. What are the advantages and disadvantages of standard costing?

14.14 SUGGESTED READINGS:

1. Horngren, C. T., Datar, S. M., & Rajan, M. (2020). *Cost Accounting: A Managerial Emphasis*.
2. Kaplan, R. S., & Atkinson, A. A. (2015). *Advanced Management Accounting*.
3. Drury, C. (2018). *Management and Cost Accounting*.
4. Anthony, R. N., & Govindarajan, V. (2017). *Management Control Systems*.
5. Sharma, R. K., & Gupta, S. K. (2019). *Management Accounting: Principles & Practice*.

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LESSON-15
RESPONSIBILITY ACCOUNTING

OBJECTIVE:

After studying this unit, you will be able to-
- Meaning of responsibility accounting
- Know the features of responsibility accounting
- examine the advantages and disadvantages of responsibility accounting

STRUCTURE:

15.1 INTRODUCTION:

Responsibility accounting is an underlying concept of accounting performance measurement systems. The basic idea is that large diversified organizations are difficult, if not impossible to manage as a single segment, thus they must be decentralized or separated into manageable parts.

These parts or segments are referred to as responsibility centers that include:
1. Revenue centers
2. Cost centers
3. Profit centers
4. Investment centers

Responsibility accounting is appropriate where top management has delegated authority to make decisions. The idea behind responsibility accounting is that each manager's performance should be judged by how well he or she manages those items under his or her control. This approach allows responsibility to be assigned to the segment managers that have the greatest amount of influence over the key elements to be managed. These elements include revenue for a revenue center (a segment that mainly generates revenue with relatively little costs), costs for a cost center (a segment that generates costs, but no revenue), a measure of profitability for a profit center (a segment that generates both revenue and costs) and return on investment (ROI) for an investment center (a segment such as a division of a company where the manager controls the acquisition and utilization of assets, as well as revenue and costs).

15.2 MEANING OF RESPONSIBILITY ACCOUNTING:

Responsibility accounting is a system that involves identifying responsibility centers and their objectives, developing performance measurement schemes, and preparing and analyzing performance reports of the responsibility centers.

The accounting generally includes the preparation of a monthly and annual budget for an individual responsibility centre. It also accounts for the cost and revenue of a company, where reports are accumulated monthly or annually and reported to the concerned manager for the feedback. Responsibility accounting mainly focuses on responsibilities centers.

For instance, if Mr Z, the manager of a unit, plans the budget of his department, he is responsible for keeping the budget under control. Mr Z will have all the required information about the cost of his department. In case, if the expenditure is more than the allocated budget than Mr Z will try to find the error and take necessary action and measures to correct it. Mr Z will be personally accountable for the performance of his unit.

15.3 OBJECTIVES OF RESPONSIBILITY ACCOUNTING:

- See below for the major objectives or principles of responsibility accounting
- Each responsibility center is given a target, which is communicated to the relevant management level.
- At the end of the time period, there is a comparison between the target and the actual performance.
- The variations that are detected in the budgeted plan are examined for fixing responsibility to the center.
- Due measures are taken by the top management which is communicated to the responsible personnel.
- The responsibility for costs does not include the policy costs and various other apportioned costs.

15.4 FEATURES OF RESPONSIBILITY ACCOUNTING:

Read on to know more about the host of responsibility accounting features, you

- **Inputs and Outputs**
  Responsibility accounting system can be implemented only on the basis of due information of input and output. The monetary term of inputs is costs, and outputs are correspondingly called revenues. Hence, cost and revenue information is crucial for responsibility accounting.

- **Use of Budgeting**
  Apart from the data of cost and revenue, planned and actual financial data is also required. It is only with effective budgeting that the accounting plan implementation can be communicated to the concerned levels of management.

- **Relationship between the Responsibility Accounting System and Organization Structure**
  Clear lines of authority and effective organization structure is absolutely necessary for the success of a responsible accounting system. The accounting system is appropriately designed to be consistent with the existing organizational structure.

- **Identification of Responsibility Centers**
  Only after responsibility centers are identified, the responsibility accounting system can be implemented. The centers go on to represent the decision points within the organization.

- **Performance Reporting**
  As the responsibility account primarily relates to control, any deviation or disruption in the plan has to be noted and reported at the earliest. On the report of such an issue, corrective measures have to be taken. Such information is the basis on which 'responsibility' or performance reports are prepared.

15.5 ADVANTAGES OF RESPONSIBILITY ACCOUNTING:

- It urges the management to acknowledge the company structure and checks who is accountable for what and fix the problems.
- It enhances attention and awareness of the managers as they have to explain the variations for which they are responsible.
- It helps to compare the achievements between the pre-planned goals and actual results.
- It creates a sense of efficiency within individual employees as their work and achievements will be reviewed.
- It guides the management to plan and structure the future expenditure and revenue of a company.
- Being a cost control tool, it creates 'cost consciousness' among workers.
- Individual and company goals are established and communicated in the best way.
- It improves and controls the company's operating activities for an effective and efficient outcome.
- Simplifies the report structure and guides to prompt reporting.

15.6 DISADVANTAGES OF RESPONSIBILITY ACCOUNTING:

While **Responsibility Accounting** helps in tracking performance, it also has some drawbacks:

- It's hard to clearly divide work among departments, leading to confusion.
- Departments may focus only on their own goals instead of working together.
- Performance measurements can be subjective and may not always be fair.
- Managers might prioritize quick results instead of long-term success.
- Setting up the system requires time, money, and skilled employees.
- Workers may feel pressured and unhappy about being constantly evaluated.
- Other important factors like customer service and employee satisfaction may be ignored.
- Managing responsibility accounting in big firms with many departments can be difficult.
- Managers might be held responsible for things they can't control, like economic changes.

15.7 TYPES OF RESPONSIBILITY CENTRE:

- **Cost Centre-** A Cost Centre is a department or a unit which supervises, allocates, segregates, and eliminates all sorts of the cost related to a company. The cost center prime work is to check the cost of an organization and to limit the unwanted expenditure the company may acquire. The cost can be the determination of both person and location. In multinational companies, the cost center is authorized to decrease and manage the cost.

- **Revenue Centre-** This center is accountable for initiating and monitoring revenue. The management does not have any control over the cost or investment but can monitor a few of the expenses in the marketing section. The production of the revenue center is calculated by analyzing the budgeted revenue with actual revenue and actual marketing expenses with budgeted marketing expenses.

- **Profit Centre**-It is a division or department of a company which operates for the calculation of profit. In an organization, different profit centers are managed by the managers, who identifies profits on the basis of costs and incomes. Profit Centre is accountable for all the actions associated with the sales of goods and production.

- Investment Centre- This center is responsible for both investments and revenue. The investment manager can control expenses, income, the fund invested in assets, etc. He also has the authority to form a credit policy, which has an immediate impact on debt collection.

15.8 SUMMARY:

Responsibility accounting is a system used in large organizations to manage different segments efficiently. It divides an organization into responsibility centers, where each center has its own accountability. The main types of responsibility centers include:

Cost Centers – Manage and control costs.

Revenue Centers – Focus on generating revenue.

Profit Centers – Responsible for both revenue and costs to measure profitability.

Investment Centers – Oversee costs, revenue, and asset investments.

The system helps assign accountability, track performance, and improve decision-making. It encourages efficiency, cost control, and planning, but also has drawbacks like difficulty in defining responsibilities, employee resistance, and excessive focus on financial measures.

15.9 TECHNICAL TERMS:

1. **Responsibility Center** – A segment in an organization responsible for managing costs, revenue, or investments.
2. **Cost Control** – Process of managing and reducing business expenses.
3. **Performance Reports** – Documents comparing actual and budgeted performance.
4. **Decentralization** – Distributing decision-making to different levels of management.
5. **Return on Investment (ROI)** – A measure of profitability for an investment center.

15.10 SELF-ASSESSMENT QUESTIONS:

1. What is responsibility accounting?
2. Name and describe the four types of responsibility centers.
3. How does responsibility accounting help in decision-making?
4. What are the advantages of responsibility accounting?
5. Mention three disadvantages of responsibility accounting.
6. How does responsibility accounting affect employee motivation?
7. Why is budgeting important in responsibility accounting?

15.11 SUGGESTED READINGS:

1. Horngren, C. T., Datar, S. M., & Rajan, M. (2020). *Cost Accounting: A Managerial Emphasis*.
2. Kaplan, R. S., & Atkinson, A. A. (2015). *Advanced Management Accounting*.
3. Drury, C. (2018). *Management and Cost Accounting*.
4. Anthony, R. N., & Govindarajan, V. (2017). *Management Control Systems*.
5. Sharma, R. K., & Gupta, S. K. (2019). *Management Accounting: Principles & Practice*.

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LESSON-16

ACCOUNTING FOR CHANGING PRICES

OBJECTIVE:

After studying this unit, you will be able to-

- the concept of accounting for price level changes
- know the types of price level changes
- enable the merits and demerits of price level changes

STRUCTURE:

16.1 CONCEPT TO ACCOUNTING FOR PRICE LEVEL CHANGES:

The general tendency in changes of prices of goods and services over a time is called price level. The rise in general price level is called inflation. During the period of inflation, purchasing power of money declines. The fall in the general price level is called deflation.

During the period of deflation, purchasing power of money increases. Price level change means increase or decrease in the purchasing power of money over a period of time. The accounting which considers price level changes is called accounting for price level changes.

Accounting for price-level changes also referred to as inflation accounting is a financial reporting procedure which records the consequences of inflation on the financial statements that a company prepares and publishes at the end of the financial year, which is based on the assumption of a stable currency.

16.2 MEANING OF ACCOUNTING FOR PRICE LEVEL CHANGES:

Price level changes refer to fluctuations in the general price of goods and services over time, affecting the purchasing power of money.

- **Inflation:** A rise in the general price level, causing money to lose value.
- **Deflation:** A fall in the general price level, increasing the purchasing power of money.

Accounting for price level changes is the practice of adjusting financial records to reflect these fluctuations. This approach ensures that financial statements represent assets, liabilities, income, and expenses at their current values, making them more accurate and meaningful.

16.3 TYPES OF ACCOUNTING PRICE LEVEL CHANGES:

a. Current Purchasing Power: Current Purchasing Power of accounting requires the companies to keep their records and present the financial statements on conventional historical cost basis but it further requires presentation of supplementary statements in items of current purchasing power of currency at the end of the accounting period.

b. Replacement Cost Accounting Replacement Cost Accounting (RCA) is an improvement over Current Purchasing Power Technique (CPP). One of the major weaknesses of Current Purchasing Power technique is that it does not take into account the individual price index related to the particular assets of a company.

c. Current Value Accounting: In the Current Value Accounting of price level accounting all assets and liabilities are shown in the balance sheet at their current values.
The value of the net assets at the beginning and at the end of the accounting period is ascertained and the difference in the value in the beginning and the end is termed as profit or loss, as the case may be. In this method also, like replacement cost accounting technique, it is very difficult to determine relevant current values and there is an element of subjectivity in this technique.

d. Current Cost Accounting: The crux of the current cost accounting technique is the preparation of financial statements (Balance Sheet and Profit and Loss Account) on the current values of individual items and not on the historical or original cost.

16.4 THE ESSENTIAL CHARACTERISTICS OF CURRENT COST ACCOUNTING TECHNIQUES:

- The fixed assets are shown in the balance sheet at their current values and not on historical costs.
- The depreciation is charged on the current values of the fixed assets and not on original costs.
- Inventories or stocks are valued in the balance sheet at their current replacement costs on the date of the balance sheet and not cost or market price whichever is lower.
- The cost of goods sold is calculated on the basis of their replacement cost to the business and not on their original cost.
- The surpluses arising out of revaluation are transferred to Revaluation Reserve Account and are not available for distribution as dividend to the shareholders.
- In addition to the balance sheet and profit and loss account, an appropriation account and a statement of changes is prepared.

16.5 THE EFFECTS OF PRICE LEVEL CHANGES:

Some of the major effects of accounting price level changes also known as inflation are as follows:

1. Effects on Redistribution of Income and Wealth

Inflation impacts different groups of people differently, leading to a redistribution of income and wealth. The effect depends on whether a person's income is fixed or flexible:

a. Fixed Income Groups (Losers): Retired individuals, pensioners, and salaried employees suffer during inflation as their incomes do not increase at the same rate as prices. Interest received on fixed deposits, bonds, and loans loses purchasing power.

b. Flexible Income Groups (Gainers): Business owners, entrepreneurs, and those in profitable industries benefit as prices of goods and services rise. Investors in real estate, stocks, and commodities often gain as asset values increase with inflation.

c. Debtors vs. Creditors: Debtors (borrowers) benefit because they repay loans with money that has lower purchasing power than when they borrowed. Creditors (lenders) lose as the real value of money repaid is lower than expected.

Inflation thus widens the gap between different income groups, often favoring those with assets and business income while disadvantaging those on fixed earnings.

2. Effects on Production

Inflation influences production in several ways, both positively and negatively.

a. Positive Effects: Encourages investment and business expansion, as rising prices increase profit margins. Leads to increased industrial growth, especially in sectors where demand remains strong despite rising prices.

b. Negative Effects:

Uncertainty in business planning: Fluctuating costs make long-term decision-making difficult.

Higher production costs: Inflation leads to increased wages, raw material costs, and overhead expenses, making production expensive.

c. Decline in exports: If domestic prices rise too much, locally produced goods become less competitive in the international market, reducing export earnings.

3. Other Effects

Inflation has broader economic and social effects, including:

a. Impact on Savings and Investment: People are discouraged from saving money as its purchasing power declines over time. They may shift investments from bank deposits to assets like real estate, gold, and stocks to protect against inflation.

b. Social and Political Instability: Persistent inflation can cause public dissatisfaction due to rising living costs. Governments may face pressure to control prices and wages, leading to policy changes and unrest.

c. Impact on Government Finance: Inflation increases government tax revenue since higher prices lead to higher sales tax collections. However, government expenditures also rise due to increased wages, subsidies, and social welfare programs.

d. Distortion in Financial Statements: Inflation leads to overstated profits in historical cost accounting, causing businesses to pay higher taxes and dividends from unreal profits. Businesses may struggle with capital replacement, as the money received from selling old assets may not be enough to buy new ones at inflated prices.

16.6 MERITS OF ACCOUNTING PRICE LEVELS CHANGES:

- In the past few years of high inflation, companies have reported very high profits on the one hand but on the other they have faced real financial difficulties. This is so because in reality dividends and taxes have been paid out of capital due to overstated figures of profits arrived at by adopting historical cost concept. Thus a change from historical cost concept to price level or inflation accounting has been recommended.

- It enables company to present more realistic view of its profitability because current revenues are matched with current costs.
- Depreciation charged on current values of assets in inflation accounting further enables a firm to show accounting profits more nearer to economic profits and replacement of these assets when required.
- It enables a company to maintain its real capital by avoiding payment of dividends and taxes out of its capital due to inflated profits in historical accounting.
- Balance Sheet reveals a more realistic and true and fair view of the financial position of a concern because the assets are shown at current values and not on distorted values as in historical accounting.
- When financial statements are presented, adjusted to the price level changes, it makes possible to compare the profitability of two concerns set up at different times.
- Investors, employees and the public at large are not misled by inflated book profits because inflation accounting shows more realistic profits. Higher paper profits without adjustment for price level changes cause resentment among workers and they demand higher wages and also excessive profits attract new entrepreneurs to enter the business. Inflation accounting helps in avoiding further competition from prospective entrepreneurs.
- The financial statements prepared by a company adjusted to the price level changes also improve its social image.
- Inflation accounting also affects the investment market as it helps to establish a realistic price for the shares of a company.

16.7 DEMERITS OF ACCOUNTING PRICE LEVEL CHANGES:

Some people are of the opinion that inflation accounting may create more problems than solving them because of the following inherent demerit of accounting price level changes:

- Adjusting accounts to price level changes is a never-ending process. It involves constant changes and alterations in the financial statements.
- Price level accounting involves many calculations and makes financial statements so complicated and confusing that it becomes very difficult for man of ordinary prudence to understand, analyze and interpret them.
- The concept of price level accounting appears to have more theoretical importance than practical because adjusting the accounts to the changes in the price levels may lead to window dressing of accounts due to the element of subjectivity in it. People may adjust the accounts according to the values most suited to them, thereby, making the financial statements more inaccurate.
- Depreciation charged on current values of fixed assets is not acceptable under the Income Tax Act, 1961 and hence adjusting it to price level changes does not serve any practical purpose.
- During deflation, when the prices are falling, adjustments of accounts to price level changes will mean charging lesser depreciation and overstatement of profits.

16.8 SUMMARY:

Inflation redistributes income from wage earners and fixed income groups to profit recipients, and from creditors to debtors. So far as wealth redistributions are concerned, the very poor and the very rich are more likely to lose than middle income groups.

This is because the poor hold what little wealth they have in monetary form and has few debts, whereas the very rich hold a substantial part of their wealth in bonds and have relatively few debts. On the other hand, the middle-income groups are likely to be heavily in debt and hold some wealth in common stocks as well as in real assets.

16.9 TECHNICAL TERMS:

HCA: Historical Cost Accounting
CPP: Current Purchasing Power
RCA: Replacement Cost Accounting
CCA: Current Cost Accounting

16.10 SELF-ASSESSMENT QUESTIONS:

1. What is meant by accounting for price level changes?
2. Explain the difference between Historical Cost Accounting and Inflation Accounting.
3. What are the main types of accounting for price level changes?
4. How does inflation accounting help businesses maintain their capital?
5. What is the significance of replacement cost accounting in financial reporting?

16.11 SUGGESTED READINGS:

1. Accounting for Price Level Changes – R. P. Gupta
2. Financial Accounting: Theory and Practice – S. N. Maheshwari
3. Advanced Accounting – Shukla & Grewal
4. Accounting Standards and Financial Reporting – Kamal Garg
5. Inflation Accounting: Theory and Practice – Geoffrey Whittington

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LESSON- 17
HUMAN RESOURCE ACCOUNTING

OBJECTIVE:

After studying this unit, you will be able to-

- Explain the meaning of HRA
- Describe the nature of HRA
- Identify the significance of HRA

STRUCTURE:

17.1 Introduction

17.2 Meaning of HRA

17.3 Nature of HRA

17.4 Significance of Human Resources Accounting

17.5 Summary

17.6 Technical Terms

17.7 Self Assessment Questions

17.8 Suggested Readings

17.1 INTRODUCTION:

The past few decades have witnessed a global transition from manufacturing to service-based economies. The fundamental difference between the two lies in the very nature of their assets. In the former, physical assets like plant, machinery, material, etc., are of utmost importance.

In contrast, in the latter, knowledge and attitudes of the employees assume greater significance. For instance, in the case of an IT firm, the value of its physical assets is negligible when compared with the value of the knowledge and skills of its personnel. Similarly, in hospitals, academic institutions, consulting firms, etc., the total worth of the organisation depends mainly on the skills of its employees and the services they render. Therefore, the success of these organizations

is contingent on the quality of their human resource – their knowledge, skills, competence, motivation and understanding of the organizational culture.

In knowledge-driven economies therefore, it is imperative that the humans be recognized as an integral part of the total worth of an organisation. However, in order to estimate and project the worth of human capital, it is necessary that some method of quantifying the worth of the knowledge, motivation, skills, and contribution of the human element as well as that of the organizational processes, like recruitment, selection, training, etc., which are used to build and support these human aspects, is developed.

17.2 MEANING OF HRA:

In simple words, human resource accounting is the art of, valuing, recording and presenting systematically the worth of human resources in the books of account of an organisation. This definition brings out three important aspects of human resource accounting:

(i) Valuation of human resources.
(ii) Recording the valuation in the books of accounts.
(iii) Disclosure of the information in the financial statements of the business.
The American Accounting Society Committee on human resource accounting defines it as follows:

"Human resource accounting is the process of identifying and measuring data about human resources and communicating this information to interested parties."
Mr. Woodruff Jr. Vice President of R.G. Barry Corporation defines human resources accounting as: "Human resource accounting is an attempt to identify and report investments made in the human resources of an organisation that are presently not accounted for in conventional accounting practice. Basically, it is an information system that tells the management what changes over time are occurring to the human resources of the business."

Example: In India, some of these companies are: Infosys, Bharat Heavy Electricals Ltd(BHEL); Steel Authority of India Ltd. (SAIL), Minerals and Metals Trading Corporation of India Ltd. (MMTC), Southern Petrochemicals Industries Corporation of India (SPIC), Associated Cement Companies Ltd, Madras Refineries Ltd., Hindustan Zinc Ltd., Engineers India Ltd, Oil and Natural Gas Commission (ONGC), Oil India Ltd., Cement Corporation of India Ltd., etc.

17.3 NATURE OF HRA:

Like any accounting exercise, HRA too depends heavily on the availability of relevant and accurate information. HRA is essentially a tool to facilitate better planning and decision-making based on the information regarding actual HR costs and organizational returns. The kind of data that needs to be managed systematically depends upon the purpose for which HRA is being used by an organisation.
Example: If the purpose is to control the personnel costs, a system of standard costs for personnel recruitment, selection and training has to be developed. It helps in analyzing projected and actual costs of manpower and thereby, in taking remedial action, wherever necessary.

17.4 SIGNIFICANCE OF HUMAN RESOURCES ACCOUNTING:

Human Resources accounting provides useful information to the management, financial analysts and employees, as shown below:

a. Human Resources accounting helps the management in the decision-making process relating to the following matters:
- Employment, locating and utilisation of human resources.
- Transfers, promotions, training and retrenchment of human resources.
- Planning of physical assets vis-à-vis human resources.

- Evaluating the expenditure incurred for imparting further education and training to employees in terms of the benefits derived by the firm.
- Identifying the causes of high labour turnover at various levels and taking preventive measures to contain it.
- Locating the real cause of low return on investment, that is whether it is due to improper or under-utilization of physical assets or human resource of both.

b. A financial analyst is interested in understanding and assessing the inner strength of the firm. Such inner strength does not merely depend on the physical assets owned and possessed by the firm. In case the human resources, specially the managerial resources at the disposal of the firm are impartially and systematically valued and disclosed in the financial statements, it will be a valuable information for persons interested in making long-term investment in the firm.

c. The Human Resource Accounting helps individual employees in improving their performance and bargaining power. It makes each of them conscious of the contribution that he is making towards the betterment of the firm vis-à-vis the expenditure incurred by the firm on him.

17.5 SUMMARY:

The shift from manufacturing to service-based economies has highlighted the importance of human resources over physical assets. Human Resource Accounting (HRA) is the process of valuing, recording, and disclosing the worth of human capital in financial statements. It helps organizations quantify the knowledge, skills, and contribution of employees, enabling better decision-making. Companies like Infosys, BHEL, SAIL, and ONGC in India have adopted HRA practices. The significance of HRA extends to management decision-making, financial analysis, and employee performance evaluation, ensuring efficient utilization of human resources.

17.6 TECHNICAL TERMS:

1. **Human Resource Accounting (HRA)**: The process of measuring and reporting investments made in human resources that are not captured in traditional accounting.
2. **Valuation of Human Resources:** Assessing the monetary worth of employees based on their knowledge, skills, and contribution.
3. **Recruitment and Selection Costs:** Expenses incurred in hiring and selecting employees.
4. Labour Turnover: The rate at which employees leave an organization and are replaced.
5. **Standard Costs for HR:** Predetermined costs related to recruitment, training, and employee development.
6. **Return on Investment (ROI) in HR:** Evaluating the benefits derived from investments made in employee education and training.

17.7 SELF-ASSESSMENT QUESTIONS:

1. What is Human Resource Accounting (HRA), and why is it important?
2. How does HRA help in decision-making for management?
3. What are the three key aspects of HRA?
4. How can HRA benefit financial analysts and investors?
5. Name some Indian companies that have adopted Human Resource Accounting.
6. What role does HRA play in improving employee performance?

17.8 SUGGESTED READINGS:

1. Indian Accounting Standards (Ind AS) and HRA Guidelines
2. Jain, S. P., & Narang, K. L. – Advanced Accounting.
3. Flamholtz, E. G. – Human Resource Accounting: Advances in Concepts, Methods, and Applications
4. Likert, R. – The Human Organization: Its Management and Value
5. Cascio, W. F. – Managing Human Resources

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LESSON-18
REPORTING TO MANAGEMENT

OBJECTIVE:

After studying this unit, you will be able to-

- Understand the report for the specific purpose
- Prepare good reports
- Know the objectives of reporting to management

STRUCTURE:

18.1. INTRODUCTION:

Reporting to management involves providing internal reports that help managers make informed decisions and track performance, focusing on key metrics and insights rather than external compliance. The reporting system involves all levels of management. The reports originate from junior levels of management and go up to top level management, consisting of Board of Directors. The sectional in-charge of every section regularly reports the progress of his section to his superior. Functional managers have Deputy Managers who control departmental sections. The combined reports of different sections reach the departmental manager called functional managers. Different functional managers submit the progress of their departments to the managing director.

The brief summaries of departmental reports are submitted to the Board of Directors for reviewing policies and making strategy for the future. Information means data have been shaped into a form that is meaningful and useful to human being. Data are stream of raw facts reporting events occurring in organisation or physical environment before they have been organized and rearranged into a form that people can understand and use.

18.2. EXAMPLES OF MANAGEMENT REPORTS:

a. **Profit and Loss by Category (Team, Job and Department):** Analyzing profitability at a granular level.
b. **Inventory Reports:** Tracking inventory levels and costs.

c. **Sales Reports:** Monitoring sales performance and identifying trends.
d. **Utilisation Reports:** Assessing resource utilization and efficiency.
e. **Key Performance Indicator (KPI) Reports:** Tracking progress against key strategic goals.
f. **Budget Reports:** Comparing actual performance against budget.
g. **Cash Flow Analysis:** Monitoring cash inflows and outflows.
h. **Accounts Receivable and Payable:** Tracking outstanding payments and debts.
i. **Operational Reports:** Focusing on operational metrics like production output and customer service.
j. **Project Reports:** Tracking the financial performance of specific projects.

18.3 OBJECTIVES OF REPORTING:

Main objectives of reporting can be divided under the following heads:
Accounting reports consist of financial statistics. Management cannot analyze all significant facts regarding its business especially in case of large scale production where the business operations are more complex in nature. Accounting reports helps to get full information about the its entire operative activity of the firm.

i) Providing accounting information: Accounting reports consist of financial statistics. Management may not analyse all significant facts regarding its business operations especially in case of large scale production where the business operations are more complex in nature. Accounting reports help to get full information about its entire operative activity of the firm. Thus important objective of the reporting is to provide accounting information to operating and top level management in accurate form in understandable brief manner.

ii) To take right decision: To help the management in taking the right decisions with suitable statements provided by the management accountant.

iii) Acceptability of the decision by all: Reporting leads to motivate people, increases efficiency and boosting the morale of the people engaged in the various aspects of the work of the enterprise.

iv) Maximizing the profits: To achieve this ultimate goal of any business reporting at the right time, at right place to the right person in right manner becomes an essential feature.

v) For better control: Abnormal events can be checked in time by obtaining the necessary information in respect of each operating activity. Control through reports become effective as compared to personal investigations

18.4 PRINCIPLES OF A GOOD REPORTING SYSTEM:

A good reporting system is helpful to the management in planning and controlling. Every level of management needs information relating to its activities centre so that effective planning may be undertaken and current activities may be controlled and necessary corrective action may also be taken in time, if needed. Some general principles are followed for making the reporting system effective. These principles are discussed below:

1. Proper Flow of Information: A good reporting system should have a proper flow of information. The information should flow from the proper place to the right levels of management. The information should be sent in the right form and at proper time so that it helps in planning and coordination. The frequency of reports will depend upon the nature of report, the types of data required for preparing the information and cost involved in preparing such reports. The flow of reports should be such that it does not cause delay in taking decisions. The reports should flow at regular intervals so that international needs of different managerial levels are met at a proper time.

Flow of information is a continuous activity and effects all levels of the organisation information may flow upward, downward or sideways within an organization. Orders, instructions, plans, etc. may flow from top to bottom. Reports grievances, suggestions, etc. may flow from bottom to top. Notifications, letters, settlements, complaints may flow from outside. Information also flows sideways, from one manager to another at the same level through meetings discussions, etc.

2. Proper Timing: Since reports are used as a controlling device they should be presented at the earliest or immediately after the happenings of an event. The time required for preparation of reports should be reduced to the minimum; for routine reports the period should be known and strictly adhered to. It will be a waste of time and effort to prepare information that is too late to be of any use. The absence of information when needed will either mean wrong decisions or ferment of decisions on matters that may be urgent in nature.

3. ***Accurate Information:*** The information should be as accurate as possible. However, the degree of accuracy may differ in different reports. Sometimes, part information may be supplied as a guide for future policy making, so the degree of accuracy may be less. The supply of exact figures may involve a problem of understanding. Approximate figures are more understandable than accurate figures given up to paisa. Accuracy should also not involve excessive cost of preparation nor it should be achieved at the sacrifice of promptness of presentation. It will be better to have approximate figures at a proper time than delayed information prepared accurately

4. Basis of Comparison: The information supplied through reports will be more useful when it is supplied in comparison with past figures, standards set or objectives lay down. The decision-making authority will be able to make use of comparative figures while making a decision. Corrective measures can also be initiated to improve upon past performance.

5. ***Reports should be clear and simple:*** The information should be presented in a clear manner by avoiding extraneous data. Only relevant important information should become the part of a report. If supporting information cannot be avoided, then it should be given in appendix or separate chart should be attached to it. The method of presenting information should be such that it attracts the eye and enables the reader to form an opinion about the information. The graphic presentation of information will enable the reader to find out the trends and also to determine deviations more quickly than in other methods. The arrangement of presentation should be brief, clear and complete. Simplicity is a good guide for reports preparation.

6. ***Cost:*** The benefits derived from reporting system must be commensurate with the cost involved in it. Though it is not possible to assess the benefit of this system in monetary terms, there should be an endeavour to make the system as economic as possible.

7. *Evaluation of Responsibility:* The reporting system should enable the evaluation of managerial responsibility. The targets are fixed for various functional departmental heads. The record of actual performance is monitored along with the standards so as to enable management to assess the performance of different individuals. So, management reporting should be devised in a way that it helps in evaluating the work assigned to various persons.

18.5 ESSENTIALS OF SUCCESSFUL REPORTING (GUIDING PRINCIPLES):

Business report is a media of communication that contains factual, correct and clear information and it should be able to add to the knowledge of the recipient. It should be easy to understand the problem of the event reported to him. Accounting reports become ideal if they follow the following guidelines:

1) Content and the shape: While making a draft of the report the following heads should be kept in mind:

1. **Suitable title:** Title should be short and suitable to the content.
2. **Time:** It should give time and the person for whom it is prepared. 1.3 Facts : Report should contain facts and not the opinions.
3. **Totals:** Where statistics are required, only relevant data should be provided and details may be given in appendix.
4. **Objectives:** Contents should serve the purpose for which it is prepared. 1.6 Synchronize : The contents should be in logical sequence.

2) Precise: Report should not be lengthy. It should be precise, specific and concise. It should not contain irrelevant matter. If details are necessary then they should be included in appendix.

3) Accuracy: The information provided in the reports should be accurate.

4) Comparable: It should be prepared in such a manner that comparison with past and predetermined standards can be made.

5) Simple: Report should be simple and should not contain any ambiguity.

6) Timeliness: Reports should be prepared and presented in time, so that decisions can be taken promptly and further deviations checked.

7) Consistency: For comparison consistency is necessary. Uniform system of collection, classification and presentation of the information should be followed.

8) Attractiveness: The report should be eye-catching in the sense that it does not go unheeded by the users.

9) Jargon: All technical jargon should be avoided as for possible since the reader may not understand these and, therefore, may become hostile to even the spirit of the report.

10) Highlighting Deviations: Report should highlight the variations and trouble spots which are significant to the organisation.

11) Assumptions: Assumptions used in the preparation of reports should be stated neatly, precisely and separately.
12) Effective Communication: Report that communicates effectively to all levels of management stimulates action and influence decisions. Detailed planning, codification and timely processing of data are the essential requisites for effective reporting.

13) Figures and data: These should be presented is a tabular form preferably in annexure at the end of the report.

18.6 SUMMARY:

Reporting to management is an essential function that provides internal reports to help managers track performance, make informed decisions, and improve operational efficiency. Reports are generated at different levels, from sectional in-charge to departmental managers, and eventually reach the Board of Directors.

Effective management reporting follows key principles such as proper information flow, accuracy, timeliness, clarity, and cost-effectiveness. Reports should be clear, concise, comparable, and highlight deviations to facilitate better decision-making. Essentials of a successful report include a precise structure, logical sequencing, factual accuracy, consistency, and effective communication.

18.7 TECHNICAL TERMS:

1. **Static Financial Report:** Providing information about the position of assets and liabilities of the concern. **Graphic Reports:** Information supplied in the form of Charts, Diagrams, Pictures etc. Reporting : Providing information to the person concerned.
2. **Dynamic Financial Report:** The information regarding the change that took place in the position of assets and liabilities of a firm
3. **Operating Reports:** Information regarding the operating of a business at different functional levels **Accuracy:** correct, right
4. **Consistency:** Uniformity Synchronize: Clear sequence

18.8 SELF-ASSESSMENT QUESTIONS:

1. What is the purpose of management reporting?
2. Name at least five types of management reports and their uses.
3. What are the key principles of an effective reporting system?
4. What are the essential elements of a successful report?
5. How should reports be structured to ensure clarity and usefulness?

18.9 SUGGESTED READINGS:

1. Gupta, S. C. – Management Accounting: Principles and Practices
2. Drury, C. – Management and Cost Accounting
3. Anthony, R. N., & Govindarajan, V. – Management Control Systems
4. Kaplan, R. S., & Norton, D. P. – The Balanced Scorecard: Translating Strategy into Action
5. Horngren, C. T., Datar, S. M., & Rajan, M. V. – Cost Accounting: A Managerial Emphasis

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