PERIYAR UNIVERSITY

NAAC 'A++' Grade with CGPA 3.61 (Cycle - 3)
State University - NIRF Rank 56 - State Public University Rank 25
Salem - 636011, Tamilnadu, India.

CENTRE FOR DISTANCE AND ONLINE EDUCATION (CDOE)

MASTER OF BUSINESS ADMINISTRATION (MBA)

SEMESTER – I

CORE – IV : ACCOUNTING FOR MANAGERS

(Candidates admitted from 2024 onwards)

PERIYAR UNIIVERSITY

CENTRE FOR DISTANCE AND ONLINE EDUCATION (CDOE)

2024 admission onwards

Core: Accounting for Managers

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SELF-LEARNING MATERIAL DEVELOPMENT – STAGE 1

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UNIT- I

FINANCIAL ACCOUNTING

Module-1 FINANCIAL ACCOUNTING

FINANCIAL ACCOUNTING

Financial Accounting – Meaning - Objectives - functions. Branches of Accounting: Financial, Cost and Management Accounting - Accounting Concepts and conventions. Journal – Ledger – Trial Balance – Preparation of Final Accounts: Trading, Profit and Loss Account and Balance Sheet (Problems); International Accounting Standards – IFRS.

UNIT MODULE STRUCTURING

1. Financial accounting
2. Branches of accounting
3. Accounting concept and conventions
4. Journal, ledger, trail balance.
5. Preparation of final account.
6. International accounting standards IFRS.

1.1 INTRODUCTION OF ACCOUNTING

Dear Students,

Nowadays, the digital world needs proper records for future planning for proprietors. Accounting is the heart of the organization. Financial accounting standards for business enterprises to serve in the preparation of financial statements. Financial accounting gives a report of information, reflecting the newly imposed idea of the earning power of business by means of income in the current period, as well it useful for take decision of investments, taxes, spending and hiring.

Accounting is called the "Language" of Business. It's referred as the recording transactions of the various financial and activities to work effectively and efficiently.

A systematic record of all the transactions is essential for every business so that profit of the business and Its financial position may be a correctly a curtained for the purpose of decision making.

1.2 NEEDS OF ACCOUNTING

The ultimate aim of any business is to earn a profit. There are a large number of transactions in the business every day. The businessman wants to know the profit or loss for the consolidated transaction at end of the financial year. So, he needs systematic record of all the business transaction. It is essential for every business it helping for planning, controlling, evaluation of performance and take decision making. This information can be provided only when business transactions are recorded classified and summarized properly. Business, Institutions, industries, it would be necessary to record the business transaction according to well defined accounting system.

1.3 MEANING OF ACCOUNTING

Accounting is the art of recording Classifying, Summarizing analysing. and reporting of business transactions and interpreting their effect of the business concerns. Accounting information has to be Suitably recorded, classified, summarized and well presented.

1.4 DEFINITION OF ACCOUNTING

In 1941, The American Institute of certified Public Accountants defined accounting as follows-

1.4.1. Definition Accounting: 1

"Accounting is an art of recording, classifying and summarizing in a Significant manner the terms of money transaction and events which are in part at least, of a financial character and interpreting this result. Thereof"

1.4.2. Definition Accounting: 2

According to American, Accounting Association definition on, accounting is a processing system whose input financial transaction and output is financial Statements communicating various information's to various interested groups

1.5 FUNCTIONS AND OBJECTIVES IN ACCOUNTING

- To Keep Systematic records of financial transaction.
- To meet the legal requirements.
  (Such as Sales tax and income tax when necessary)
- To Protect business properties.
  (Fixed asset, cash in hand, Cash at bank, have stock of raw materials, working in Progress and finished goods. How much Pay to other's and recover from other's)
- To ascertain the operational Profit or Loss
- To ascertain the Position of the financial business
- To facilitate rational decision-making.

1.6 USES OF AN ACCOUNTING INFORMATION

1.6.1 External Groups

External groups are the persons outside the organization; following external groups are very much interested in accounting information.

- Investors
- Creditors
- Consumers
- Government
- Research scholars

1.6.2 Internal Groups

Internal groups are the persons who are within the organization

- Owner - Owners are the persons who provide funds for a business's operations and share the business's risk. So that owners decide about the desirability of continuing their investment or withdrawing
- Management - Accounting information
- Employees

LET'S SUM UP:

Dear Learner's

This section helps to business maintain accurate and timely records of the finance. A method of accounting that creates statements, reports and documents. It helps management making decision related to the business performance. To gain understanding and provide working knowledge of accounting concept, objectives, uses, detailed procedures and documentation involved in financial accounting.

Accounting can be understood as the language of financial decisions. It is an ongoing process of performance measurement and reporting the results to decision makers. The discipline of accounting can be traced back to very early times of human civilization. With the advancement of industry, modern day accounting has become formalized and structured. A person who maintains accounts is known as the account.

CHECK YOUR PROGRESS

1. If the firm stops making repayments and the goods or assets are taken away from them as a result, this is known as:

a) Cancellation	b) Forfeiture	c) Repossession	d) Annulment
2.When an asset is acquired on hire purchase system, the asset account is debited with _______ of the assets in the books of the hire purchaser.			
a) Hire purchase Account	b) Hire Vendor Account	c) Interest Account	d) Cash Account
3. The depreciation in the books of buyer is charged on_____			
a) Hire Purchase Price	b) Market price	c) Total Instalment amount	d) Cash Price
4. Hirer charges depreciation on			
a) Hire purchase price	b) Cash price.	c) Lower of the two	d) None of these
5. The Sale of Goods Act is applicable in:			
a) Credit Purchases	b) Cash Purchases	c) Cash Sales	d) None of these

Module-2 FINANCIAL ACCOUNTING

BRANCHES OF ACCOUNTING

- There are several branches of accounting, all of which came into existence keeping in view the various types of accounting information needed by different stakeholders, business management, creditors, suppliers, government agencies, taxation, planning, controlling of financial statement.
- To begin with, there are more ten branches but three main branches of accounting is basic and important of branches of accounting.
  - Financial Accounting
  - Management Accounting
  - Cost Accounting

BRANCHES OF ACCOUNTING

↓

Financial Accounting	Management Accounting	Cost Accounting
1. Journal 2. Subsidiary Books 3. Ledger 4. Trial balance 5. Reports a) Balance Sheet b) Profit & loss A/c c) Display d) Quit	1. Cost Sheet 2. Material Cost 3. Labour Cost 4. Other Expenses Cost 5. Reports a) Standard cost Report b) Variance Report c) Break Even Analysis d) Marginal Cost Report e) Price Determination Report	1. Trend Analysis 2. Ratio Analysis 3. Fund Flow Statement Analysis 4. Cash Flow Statement Analysis 5. Reports a) Budgetary Reports b) MIS Report c) Interpretation

2.1 FINANCIAL ACCOUNTING

- It is the original form of accounting. Financial Accounting records business transactions taking place during the accounting period with a view to prepare financial statements.
- American Institute of Certified Public Accountants 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 are in part at least of financial character and interpreting the result thereof".

- Ultimate object of accounting is to measure the Profit or Loss of the concern and to ascertain the financial position of the business. Thus, Profit and Loss Account is prepared for a particular period to determine the profitability of the concern and Balance sheet is prepared on a particular date to determine the financial position of the concern.

2.1.1 FUNCTIONS OF FINANCIAL ACCOUNTING

- Recording Business Transaction
- Managerial Functions
- Legal Requirement Function
- Language of Business
- Replacement of Memory
- Comparative Study
- Sale of Business

2.1.2 LIMITATIONS OF FINANCIAL ACCOUNTING

- Records of Monetary Transaction
- Recording Actual Cost
- Personal Bias of Accountant affects the Accounting Statements
- Incomplete Information
- Permits Alternative Treatments
- Only Quantitative Information
- Technological Revolution

2.2 MANAGEMENT ACCOUNTING

- The term Management Accounting refers to accounting for the management.
- Accounting which provides necessary information to the management for taking and implementing important decisions. Management accounting covers various areas such as cost accounting, budgetary control, inventory control, etc. This has been discussed in detail in the subsequent pages.

2.2.1 AMERICAN ACCOUNTING ASSOCIATION

- "Management accounting includes the methods of concepts necessary for effective planning for choosing among alternative business actions and for control through the evaluation and interpretation of performance".
- It is neither preparation of different financial records nor a substitute of this traditional type of accounting.

2.2.2 NATURE / CHARACTERISTICS OF MANAGEMENT ACCOUNTING

- Management Accounting is of selective nature
- Management accounting is a technique of selective nature. It picks up only that data from balance sheet and profit and loss a/c which is relevant and useful.
- It provides data not the decisions
- Management Accounting is concerned with Future
- It stresses on the study of causes and effect relationship.
- Management Accounting does not follow set rules and formats like Financial Accounting.

2.2.3 SCOPE OF MANAGEMENT ACCOUNTING

- Financial Accounting
- Cost Accounting
- Revaluation Accounting
- Budgeting and Forecasting
- Cost Control Procedures
- Reporting
- Methods and Procedures
- Tax Accounting
- Internal Financial Control
- Interpretation
- Office Services

2.2.4 FUNCTIONS OF MANAGEMENT ACCOUNTING

- Forecasting and Planning
- Organising
- Co-ordinating
- Controlling Performance

- Financial Analysis and Interpretation
- Communication
- Special Cost and Economic Studies

2.2.5 LIMITATIONS OF MANAGEMENT ACCOUNTING

- Wide Scope
- Based on Financial and cost accounts
- Lack of Knowledge
- Persistence of Intuitive Decision Making
- Lack of Community and Co-ordination in operation
- Un-widely Structure
- Difficulties Encountered
- Not an Alternate of Administration
- Psychological Resistance
- Unquantifiable Variables

2.2.6 TOOLS AND TECHNIQUES USED IN MANAGEMENT ACCOUNTING

- Financial Planning
- Analysis of Financial Statement
- Historical Cost Accounting
- Standard Costing
- Budgetary Control
- Marginal Costs
- Funds Flow Statements
- Decision Accounting
- Revaluation Accounting
- Statistical and Graphical Techniques
- Communication or Reporting

COST ACCOUNTING.

Cost Accounting is the process of ascertaining cost from the point at which expenditure is incurred or committed to the establishment of its ultimate relationship with the cost centres and cost units.

LET'S SUM UP

Dear Learner's, in this section we know about Branch accounting is a book keeping system in which separate accounts are kept for each branch or operating location of an organization. its each branch is treated as an individual profit or cost centre. Branch accounting is a common practice for businesses that operate in different geographic locations. Branch accounting is a bookkeeping system in which separate accounts are maintained for each branch or operating location of an organization.

CHECK YOUR PROGRESS

1.Branch not keeping the full system of accounting is also known as			
a) Foreign branch	b) Dependent branch	c) Independent branch	d) None of the above
2. Branch keeping the full system of accounting is also known as			
a) Independent branch	b) Dependent branch	c) Foreign branch	d) None of the above
3. Stock and debtor system is popularly known as			
a) Foreign branch methods	b) Analytical methods	c) Synthetic methods	d) Analytical methods
4. Branch debtor system is otherwise known as			
a) Synthetic methods	b) Stock and debtor methods	c) Foreign branch methods	d) Analytical methods
5. Branch account is prepared to ascertain			
a) Profit and loss of the branch	(b) Financial statement of the business	c) Assets and liability of the head office	d) None of the above

Module-3 ACCOUNTING CONCEPTS

3. ACCOUNTING CONCEPTS

- Separate Organisation Concept
- Money Measurement Concept
- Dual Aspect Concept
- Going Concern Concept
- Accounting Period Concept
- Cost Concept
- The Matching Concept
- Accrual Concept
- Realisation Concept

Separate Organisation Concept

All the Transactions of the business are recorded in the books of the business and separated from the point of view of the business as an entity.

Money Measurement Concept:

This concept makes the accounting date homogeneous and helps in understanding the affairs of the business.

Which Concept be expressed in terms of money, are not recorded in the books of accounts, though they may be very useful for the business. For example: If a business has a term of dedicated employee's, it's definitely as asset to the business but it is not shown in the books of account because its monetary measurement is no possible. Health condition of chairman, working conditions, sales policy, Industrial relation, etc., are not recorded in the books because these cannot be expressed in terms of money.

Dual Aspect Concept

This concept is the core of accounting According to this concept, all transactions involve two-fold aspects of account. In order to understand this concept necessary for us to understand simultaneously the meaning of three terms.

Assets Capital Creditors. This express the effects of the transaction as under.

Cost Concept

Cost Concept has the advantage of bringing objectivity in the preparation and presentation of financial statement.

It Means Asset value is recorded at the cost of that time of its purchases or increase in future. This Concept it helps to proprietor's Assets value by charging depreciation or added income.

d. Costs and Revenues concepts.

This based on the accounting periodic matching of expenses. It helps segments period showing financial position of the business.

ACCOUNTING CONVENTIONS:

a) Convention of conservatism

This is the policy of playing safe future losses are only recorded when their expected (ex) sale of goods.

Income is recorded when they are realized.

b) Convention of full disclosure

They should be honestly prepared and sufficiently disclose information which is of material interest to proprietors, present and potential creditors and investors.

c) Convention of Consistency

According to this convention, accounting practices should remain unchanged from one period to another.

d) Convention of Materiality:

According to this convention the accountant should attach importance to material details and ignore insignificant details.

LET'S SUM UP

Dear Learner's we understand about this section the important accounting concepts and conventions include Separate Business Entity Concept, Money Measurement Concept, Dual Aspect Concept, Going Concern Concept, Accounting Period Concept, Cost Concept, The Matching Concept, Accrual Concept, Realisation Concept, Convention of Materiality, Convention of Conservatism and Convention of consistency.

CHECK YOUR PROGRESS

1. GAAP is an abbreviation for:

a) Accepted Accounting Principles	b) Standard Accounting Principles and Practices	c) Generally Accepted Accounting Principles.	d) None of these

2. Which accounting principle states that companies and their owners should be treated as separate legal entities in accounting?

a) The Concept of Money Measurement	b) Accounting period accounting period concept	c)The Concept of a Separate Entity	d)The Concept of Dual Aspects

3. Which theory states that "for every debit, there is an equal and opposite credit"?

a) The Concept of Money Measurement	b) Accounting period accounting period concept	c) The Concept of a Separate Entity	d) The Concept of Dual Aspects

4. Which of the following methods is the most acceptable for determining income?

a) The application of the normal rate of return on capital invested	b) To use the average return on capital in the industry as a guideline.	c) To ensure that costs and revenues are in sync.	d) To make the distinction in net worth between two different dates.

5. What is the proper form of the Accounting equation?

a) Assets minus Receivables equals equity.	b) Assets minus Receivables equals equity.	c) Equity is equal to the sum of assets and fewer liabilities.	d) Equity is equal to the sum of assets and liabilities.

Module-4
JOURNAL, LEDGER AND TRAIL BALANCE

4.1 JOURNAL

Journal records all daily transactions of a business in the order in which they occur. A journal may therefore be defined as a book containing a chronological record of transactions. The process of recording transactions in a journal is termed as journalizing.

4.1.1 FIVE COLUMNS IN THE JOURNAL

Date:

The date on which the transaction was entered is recorded here.

Particulars:

The two aspects of the transaction are recorded in this column, i.e., the details regarding accounts which have to be debited and credited.

L.F.

It means Ledger folio. The transactions entered in the journal are later on posted to the ledger. Procedure regarding posting the transactions in the ledger is simple. Each and every journal entry is to be placed in its specific Ledger.

Debit:

In this column the amount to be debited is entered.

Credit:

In this column, the amount to be credited is shown. Following are the rules for recording transactions in journal.

Advantages of Journal

1. The journal transactions are recorded in journal as and when they occur so the chances of error is minimized.
2. Journal help in preparation of ledger.
3. Any transfer from one account to another account is made through Journal.

4. The entry recorded in journal are self-explanatory as it includes narration also.

4.1.2 TYPES OF ACCOUNT

1. Personal Account
2. Real Account
3. Nominal Account

4.1.3 ACCOUNTING RULE

Rule No-1 - For Personal Accounts

"Debit the receiver and credit the giver"

Rule No.2 - For Real Accounts.

"Debit what comes in and credit what goes out"

Rule No.3 - For Nominal Accounts

"Debit all expenses and losses and credit all gains and profits"

Problem:1

Journalise the Following transaction in the books of kumar and prepare necessary ledger accounts

2022, Jan. 1. Kumar Started a Business with the capital of Rs.60,000/-

3. Amount Received from Bank Rs.10,000/-

4. Purchased goods from Ravi for Rs.5,000/-

5. Returned goods to Ravi for Rs.1,000/-

6. Sold goods for cash Rs.5,000/-

9. Sold goods to Lakshman for Rs.3500/-

10. Amount of Rs.3750/- paid to Ravi as full settlement.

12. Lakshman returned the goods worth Rs.500. Complaint about damages.

20. Paid Salaries Rs.2500/-

21. Dividend Received Rs.1000/-

22. Amount paid to Mohan through a bank at Rs.1500/-

24. Withdraw money from the business for private use Rs.1000/-

30. Withdraw money from Bank for Business use Rs.3000/-

Solution:

Journal (In the books of Kumar)

Date	Particulars	L.F	Dr. Rs.	Cr. Rs
2022 Jan 1	Cash A/c. Dr. To Kumar Capital A/c (Beingthe business Started)		60,000	60,000
3rd Jan 2022	Cash A/c Dr. To Bank A/c. (Being the cash received from Bank)		10,000	10,000
4th Jan 2022	Goods A/c. Dr. To Ravi A/c. (Being Goods purchased from Ravi on credit basis)		5,000	5,000
5th Jan 2022	Ravi A/c Dr. To Purchase Return A/c. (Being the goods returned to Ravi on account of damages)		1,000	1,000
6th Jan 2022	Cash A/c. Dr. To Goods A/c (Being the goods sold for cash)		5,000	5,000
9th Jan 2022	Lakshman A/c Dr. To Goods A/c. (Being the goods sold to Lakshman on the credit basis)		3,500	3,500
10th Jan 2022	Ravi A/c. Dr. To Cash A/c To Discount A/c. (Being the payment of full settlement)		4,000	4,000

12th Jan 2022	Sales Return A/c or Goods A/c Dr. To Lakshman A/c. (Being the goods returned to Lakshman)		500	500
20th Jan 2022	Salaries A/c Dr. To Cash A/c. (Being Salaries paid)		2,500	2,500
21th Jan 2022	Cash A/c. Dr. To Dividend A/c. (Being Dividend Received)		1,000	1,000
22th Jan 2022	Mohan A/c. Dr. To Bank A/c. (Being amount paid to Mohan through bank)		1,500	1,500
24th Jan 2022	Drawing A/c. Dr. To Cash A/c. (Being withdrawn money from business for private use)		1,000	1,000
30th Jan 2022	Cash A/c. Dr. To Bank A/c. (Being withdrawn money from bank for business use)		3,000	3,000

4.2 LEDGER

Ledger is a set of account. Ledger is a book in which various accounts of personal, real and nominal nature are opened. Entries are made into the ledger accounts from the various subsidiary books of journal. A ledger is the ultimate destination of all transactions and therefore is called the “Book of Final Entry”.

Balancing of ledger

Balancing of ledger refers to drawing parallel line on both sides (debtors and creditors side) and enter the highest value on both sides and the difference amounts is known as balance c/d.

Balancing of ledger means equalisation value of both sides and two difference amounts is known as balance c/d.

Every account has two parts:

1. The left side known as debit side
2. The right side known as credit side

Each side of the account has following columns:

1. Date
2. Particulars.
3. Journal Folio
4. Amount.

PREPARATION OF LEDGER ACCOUNTS CASH ACCOUNT

CASH ACCOUNT

Date	Particulars	Folio	Amount	Date	Particulars	Folio	Amount
1.1.22	To Capital A/c		60,000	20.1.22	By Salaries		2,500
3.1.22	To Bank A/c		10,000	24.1.22	By Drawings		1,000
6.1.22	To Goods A/c		5,000	31.1.22	By Balance c/d		79,250
10.1.22	To Ravi A/c		3,750				
21.1.22	To Dividend A/c		1,000				
30.1.22	To Bank A/c.		3,000				
			82,750				**82750**
1.2.22	To Balanceb/d		79250				

KUMAR CAPITAL ACCOUNT

Date	Particulars	Folio	Amount	Date	Particulars	Folio	Amount
31.1.22	To Balancec/d		60,000	1.1.22	By Cash A/c		60,000
			60,000				60,000
				1.2.22	By Balance b/d		60,000

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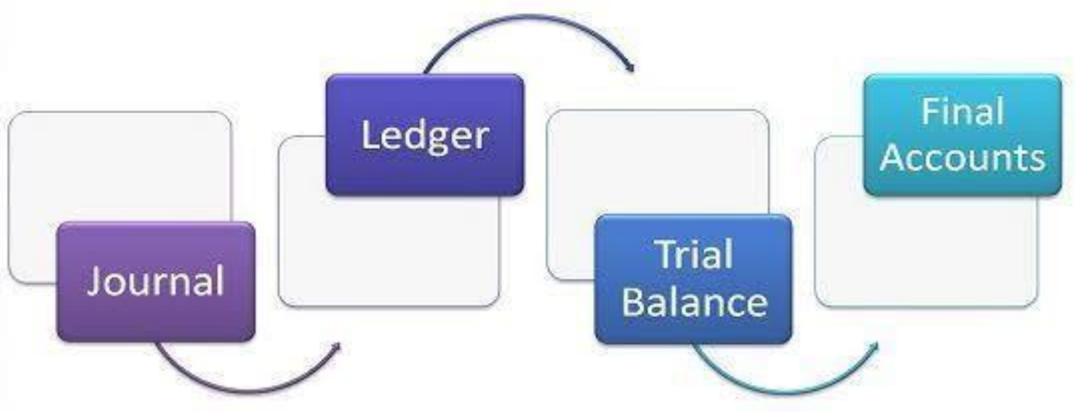
4.3 TRAIL BALANCE

Every transaction is recorded under double-entry system. All the ledger accounts are balanced. After arriving at the figures, total of all debit balances must be equalled to the total of credit balances if the accounts are arithmetically accurate.

At the end of the financial year, or at any time the balances of all the ledger accounts are extracted and written up, a statement is prepared which is known as trial Balance.

Trial Balance creates a link between ledger accounts and final accounts.



4.3.1 METHODS OF PREPARING TRIAL BALANCE

There are two methods available for preparing Trial Balance.

1. Total Method
2. Balances Method

Under the total method, without balancing the ledgers, Debit and credit totals of each account are shown in the two columns

i.e., Debit side total in the debit column of trial balance and Credit side total is put in the credit column of Trial Balance.

RULES

Debit Side = Either Asset Account Balance or Expenses Account balances

Credit Side = Either Liability Account balances or Income Account balances.

Problem: 1

Prepare Trial Balance as on 31.03.2023 from the following balances of Mr. Ravi.

Capital	1,00,000
Sales	1,50,000

Plant & Machinery	60,000	
Purchases	50,000	
Sales Return	5,000	
Wages	10,000	
Sundry Creditors	60,000	
Bad Debts	7,000	
Bad Debts Provision	3,000	
Land & Buildings	1,00,000	
Debenture	45,000	
Drawings	10,000	
Commission Received	7,500	
Auditor's Fees	6,500	
Purchase Return	10,000	
Bills Payable	9,000	
Carriage Inwards	2,000	
Goodwill	10,000	
Reserve Fund	25,000	
Wages & Salary	5,500	
Carriage Outwards	1,500	
Stock on 01.04.2022	25,000	
Debtors	49,000	
Interest Received	4,000	
Travelling Expenses	5,000	
Bank Overdraft	3,000	
Trade Expenses	3,400	
Motor Vehicle	8,000	
Rent Received	2,000	
Lease hold property	60,600	

Solution:

Trial Balance of Mr.Ravi as on 31st March 2023

Particulars	Debit (Rs)	Credit (Rs)
Capital	-	1,00,000
Sales	-	1,50,000

Plants & Mechinery	60,000	-
Purchases	50,000	-
Sales Returns	5,000	-
Wages	10,000	-
Sundry Creditors	-	60,000
Bad Debts	7,000	-
Bad Debts Provision	-	3,000
Land & Buildings	1,00,000	-
Debentures	-	45,000
Drawings	10,000	-
Commission Received	-	7,500
Auditor's Fees	6,500	-
Purchase Return	-	10,000
Bills Payable	-	9,000
Carriage Inwards	2,000	-
Goodwill	10,000	-
Reserve Fund	-	25,000
Wages & Salary	5,500	-
Carriage Outwards	1,500	-
Stock 1.4.2001	25,000	-
Debtors	49,000	-
Interest Received	-	4,000
Travelling Expenses	5,000	-
Bank Overdraft	-	3,000
Trade Expenses	3,400	-
Motor Vehicle	8,000	-
Rent Received	-	2,000
Lease hold Property	60,600	-
	4,18,500	**4,18,500**

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Key words:

Accounting equation is an accounting formula expressing equivalence of the two expressions of assets and liabilities.

Journal is a tabular record in which business transactions are recorded in a chronological order.

Journal entry is the record of the transaction in the journal is called a journal entry.

Ledger is the principal book of accounts where similar transactions relating to a particular person or thing are recorded.

Balance Sheet discloses the assets and liability position of the concern as on the date.

LET'S SUM UP

Dears Learner's we knows about this section an accounting process is a complete sequence with the recording of the transactions and ending with the preparation of the final accounts. Journal is concerned with the recording of financial transactions in an orderly manner, soon after their occurrence. The function of systematic analysis of the recorded data to accumulate the transactions of similar type at one place is performed by maintaining the ledger in which different accounts are opened to which transactions are recorded.

CHECK YOUR PROGRESS

1. What are final accounts?

A) It is the absolute final stage of accounting	B) It is the sum of the company's expenditure and income	C) It is the determiner of a company's net profit and loss	D) All of the above

2.How many stages does the process of final accounting have?

a) 2	b) 3	c) 6	d) 5

3.How many components do final accounts have?

A) 2	b) 5	c) 7	d) 3

4.Which of these is not a component of the final accounts?

a) Balance sheet	b) Trading Account	c) Profit and Loss Sheet	d) Transaction receipts

5. **A profit and loss appropriation account is prepared by the following:**

a) All businesses	b) Corporations	c) Partnership firms	d) All of the above

Module - 5
PREPARATION OF FINAL ACCOUNT

5.1 INTRODUCTION

- Preparation of the Trading and Profit and Loss Account and Balance Sheet at the end of the accounting period are popularly known as final accounts. Trading Account is prepared to know the Gross Profit or Gross Loss.
- Profit and Loss Account discloses net profit or net loss of the business.
- Balance sheet shows the financial position of the business on a given date.
- For preparing final accounts, certain accounts representing incomes or expenses are closed either by transferring to Trading Account or Profit and Loss Account. Any Account which cannot find a place in any of these two accounts goes to the Balance Sheet.

5.2 FUNDAMENTALS OF ACCOUNTING

- Income

Money earned by the concern due to rendering of services or sales of goods.

Example / Specifications:

Commission Received	Interest on Investment Received
Rent Received	Apprentice Premium Received
Dividend Received	Rent Received on sub letting
Interest on Drawings	Rent from Tenants
Sales	Income from any other sources
Bad Debts Recovered	Miscellaneous Revenue Receipt
Interest Received	Salary Received

- Expenses

Expenses are those which can be incurred i.e., amount paid for the purpose of purchasing of goods or those who render services in our organisation.

Example / Specifications:

Wages paid Salaries paid Commission paid Rent paid Interest paid Oil, Water Gas, Electricity charges paid Drawings Office Salaries Telephone charge Legal Charges Audit Fees General Expenses Discount Allowed Selling and Distribution Expenses	Carriage inwards Carriage outwards Freight on purchases Customs Duty Advertisement Expenses paid Interest on Bank loan Interest on Capital Discount on bills Loss of fire not covered by the Insurance company Managers renumeration Insurance Bad Debts Agents Commission

- Assets

Anything which possesses certain monetary value is called Assets.

Example / Specifications:

Current Assets	Fixed Assets	Others
Cash in hand and at bank Sundry Debtors Bills Receivable Stock in Trade Short Term Investments Marketable Securities Accrued Incomes Prepaid Expenses	Land & Building Machinery Furniture & Fittings Loose tools and Spares Investments Motor van	Preliminary Expenses Goodwill Patents and Trade Mark Prepaid Expenses

- Liabilities

A Business Organisation which is liable to pay a certain sum of money to the outsiders is called liabilities.

Example / Specifications:

Capital Reserve Fund Debenture Bank Loan Mortgage Loan Sundry Creditors Bills Payable	Bank overdraft Outstanding Expenses Deposits Incomes received in advance Expenses due but not paid Proposed Dividend Provision for Taxation

5.3 FINAL ACCOUNTS

- Final accounts are otherwise called annual accounts. Normally Final Accounts are prepared at the end of the financial year or Accounting year. The purpose of preparing

Final Accounts is to enable one to know the progress of the business, profit or loss and financial position of the firm at the right time.

- Final Accounts consists of the following parts.
    - Trading Account
    - Profit and Loss Account
    - Balance Sheet

Trading Account

- Trading Account is prepared to know the trading results or gross profit on trading of the business. Simply, it is to find out the gross profit from business due to buying and selling of goods or services during a particular period.
- In other words, Gross profit is the difference between the sales and the cost of goods sold. In business, the expenditure and incomes are classified into Direct and Indirect. All the direct expenditure are debited into the debit side of the Trading Account and all the indirect incomes are credited into the credit aide of the Trading Account.
- After transferring all the above details, we have to balance the Trading Account. If the balance is in the debit side it means the business is getting profit and named as Gross profit. Suppose the balance is in the credit side, it shows Loss and it is called Gross Loss.
- The Gross Profit or Gross Loss is transferred to the profit and Loss Account either on the Credit side or Debit side.

Profit and Loss Account

- Profit and Loss Account is prepared to find out the net profit or net loss of the business. All the indirect incomes and expenditure are transferred to the Profit and Loss Account on the credit side and debit side respectively.
- After transferring all details to the Profit and Loss Account, we balance this account. If the balance is in debit side it is called Net profit. Suppose, the balance is in the credit side it is called as Net Loss.
- Net profit is transferred to the balance sheet Liabilities side and added to the capital. If it is Net Loss it will be deducted from the capital.

Balance Sheet

- A Balance Sheet is a statement which is prepared for the purpose of finding out the Assets and liability position of the concern for the particular period) A Balance Sheet is also described as "Statement showing the sources and application of funds.

- " It is a statement and not an account and prepared from real and personal Accounts. It has two sides.
- The left side of the balance sheet describes the Liabilities and Capital position. The right-hand side of the balance sheet describes all the assets and investments. Trading, Profit & Loss Account disclose the financial results of the concern at the end of the year.

5.4 ADJUSTMENT

- The purpose of the Trading and Profit and Loss Account is to know the real Profit or Loss of the concern during a given period.
- The reason of the balance sheet is to know the financial position at a given period. True profit can be arrived at after adjusting all pending bills and outstanding expenses and incomes through entries.
- These entries which are passed at the end of the accounting period are called adjustment entries.

Important Adjustments

1. Closing stock
2. Outstanding expenses
3. Prepaid or unexpired expenses.
4. Income earned but not received
5. Income received in advance.
6. Depreciation.
7. Interest on capital.
8. Interest on drawings.
9. Interest on loan.
10. Bad debts.
11. Provision for bad and doubtful debts.
12. Provision for discount on debtors.
13. Provision for discount on creditors.
14. Goods distributed as free of sample.
15. Loss of stock by fire.

In the actual sense all the above adjustments are given outside the Trail Balance. While preparing the Final accounts all the adjustments are to be considered. Normally, all the adjustments will appear at two places in the final accounts i.e., either

i) Trading Account and Balance Sheet or

ii) Profit & Loss Account and Balance Sheet.

Adjustment and their Treatment

1. Closing Stock

Trading Account	-	Credit side
Balance Sheet	-	Asset side

2. Outstanding Expenses

Trading or Profit & Loss A/c	-	Debit side
Balance Sheet	-	Liability side

3. Prepaid Expenses

Profit & Loss Account	-	Credit side
(subtract from respective expenses)		
Balance Sheet	-	Asset side

4. Income Due but not Received

Profit & Loss Account	-	Credit side
(Add from respective incomes)		
Balance Sheet	-	Asset side

5. Income Received in Advance

Profit & Loss Account	-	Credit side
(subtract from respective incomes)		
Balance Sheet	-	Liability side

6. Depreciation

Profit & Loss Account	-	Debit side
Balance Sheet	-	Liability side
(subtract from respective Assets)		

7. Interest on Capital

Profit and Loss Account	-	Debit side
Balance Sheet	-	Liability side
(add the capital)		

8. Interest on Drawings

Profit and Loss Account	-	Credit side
Balance Sheet	-	Liability side
(subtract from the capital)		

9. Interest on Loan

Profit and Loss Account	-	Debit side
Balance Sheet	-	Liability side

(add with the respective loan)

10. Bad Debts

Profit and Loss Account	-	Debit side
Balance Sheet	-	Asset side

(subtract from the sundry debtors)

11. Provision for Bad and Doubtful Debts

Regarding the Bad debts and provision for Bad and doubtful debts we have to apply the following formula.

BD + NR - OR

12. Provision for Discount on Debtors

- Profit & Loss Accounts Debit Side
- Balance Sheet Asset side [Deduct from sundry debtors]

13. Provision for Discount on Creditors

- Profit & Loss Accounts Credit side
- Balance Sheet Liability side [Deduct from sundry creditors]

14. Goods Distributed as free of samples

- Trading Accounts Debit side [Deduct Purchases]
- Profit & Loss Accounts Debit side (treated as advertisement expenditure).

15. Loss of Stock by fire

a) If Insurance Company admitted the full claim

Trading Account credit side (Total stock value destroyed by fire)

Balance Sheet Asset side (Insurance Company Accounts)

b) If Insurance Company admitted the part of the claim : (for example 60%)

Trading Account credit side (Total stock value Destroyed by fire) (100%)

Profit and Loss Account Debit side (Loss by fire) (40%)

Balance Sheet Asset side (Insurance Company Account) (60%)

Important terms used in Accountancy

Following are the Important Terms used in Accountancy:

Book Keeping

Book keeping is the systematic recording, classifying and summarizing the business transactions in the book of accounts in accordance with the principles of accounting. In the words of Carter "Book keeping is the art of correctly recording in book of accounts all those transactions that result in the transfer of money or money's worth".

Account

It is a consolidated statement of various transactions occurred between a customer and the firm. It should be clearly expressed and it is a concise record of the transactions relating to a person or a firm or a property or a liability or an income or expenditure. The abbreviation for account is A/c.

Transaction

Day-to-day business activities are called transaction. It may involve transfer of money due to exchange of goods or services between two parties or two persons. Transaction may be cash transaction and/or credit transaction.

For Example :

(a) Purchase of machinery worth 50,000/-

(b) Cheque Received from Ramu 15,000/-

Capital

In order to start and run the business, the owner has to contribute some initial amount to the firm for the purpose of producing and selling the goods. The amount invested in order to earn an income is known as capital.

Capital may be classified as fixed capital and working capital. Capital is the Liability of the business to its proprietor, because as and when the owner claims, firm is liable to repay the money to its owner.

Liability

It refers to any amount which a business firm has to pay legally to outsiders. All dues to others including proprietor's capital are said to be liabilities.

Asset

Anything possessed by the firm which is of certain monetary value is called Asset. In other words, assets refer to tangible object and an intangible right of an enterprise, which carries probable future benefits. It may be classified as current assets and fixed assets.

Income

Income is a flow of benefit to the enterprise arising out of resources controlled by it. The definition of income consists of both revenue and gain. Revenue arises in the course of ordinary activities of an enterprise. In manufacturing or trading enterprises revenues arise mainly from the sale of goods. Example: Sales, dividend received, interest received, etc.

Expenses

It means an amount spent on any item by the proprietor to acquire benefit out of it. The expenses are classified into Capital Expenditure and Revenue Expenditure.

Capital expenditure refers to any amount spent to increase the earning capacity of the business or acquisition of asset.

Revenue expenditure refers to the amount spent for the purpose of acquiring benefit for the particular year alone.

Example: Payment of salaries, rent, etc.

Purchase

Buying of goods by the trader for selling them to his customers is known as purchases. Purchases may be cash purchases and credit purchases.

For example: Ramu purchases goods of 85,000/-.

Purchase Returns

Purchase returns means a firm or buyer returns to the vendor the goods purchased due to defective parts or product.

Sales

Exchange of goods for money is called sales. Simply sales means goods sent out from the organisation to its customers. Sales can be cash sales and credit sales. For Example: Sale of finished goods to Murali 60,000/-.

Sales Returns

When a customer returns some of the purchased goods (due to some reasons) to the firm it is called sales returns.

For Example: Murali returns goods worth 5,000/-.

Creditor

Creditor is a person who supplies finance or goods to others i.e., he has to get money from others. Suppose more than one person are supplying finance or goods to others. It means the consolidated names of suppliers is called creditor. The creditors are shown as liability in the balance sheet.

Debtor

Debtor is a person who owes money to others because he has purchased the goods or has got finance from others. Simply debtor is one who has to pay money to others. The Debtors are shown on the Asset side of the Balance sheet.

Goods

The things which a trader sells or purchases are called goods.

Drawings

It refers to the withdrawals of money or money's worth (goods) by the proprietor from his business for his personal use.

Journal Entry

Journal Entry means particular transactions are to be split into two parts i.e., debit and credit based upon the accounting rules.

Ledger

A ledger refers to a summary statement of all the transactions relating to a person, asset, expense or income which have taken place during a given period of time and show their net effect.

Invoice

While making a sale, the seller prepares a statement giving the particulars such as quantity, price per unit, the total amount payable, any deductions made and shows the net amount payable by the buyer. This type of statement is called an invoice.

5.5 SINGLE ENTRY SYSTEM OF BOOK KEEPING

Under the single-entry system, the principles of Double entry book keeping are not followed. Normally, every transaction has a twofold aspect. But in the single-entry system of accounting only one aspect is recorded. So, it is called incomplete method of Book keeping. Trial Balance, Trading Account, Profit and Loss account, and Balance Sheet cannot be prepared with the help of the single-entry system. This system is mainly followed by those organisations that have only limited number of transactions.

5.6 DOUBLE ENTRY SYSTEM OF BOOK KEEPING

Double entry system of book keeping refers to particular transactions which are entered in two aspects. It is based on the dual aspect concept. Posting of each transaction in two different accounts on opposite sides for equal value is known as the double entry system of book keeping. [Normally it is the most accurate, complete and scientific method of accounting.

Simply, every debit must have a corresponding credit and vice versa. Most of the trading organisations follow the double entry system of accounting.

Advantages of Double Entry System

- It provides a complete record of the financial transactions which is maintained.
- It supplies complete information about the business.
- It provides a check on the arithmetical accuracy of books of accounts by preparing a trial balance by taking balances of all ledger accounts.
- It is helpful in ascertaining profit or loss of a particular period by preparing the trading and profit and loss account.
- It helps the businessman to evaluate the progress of his business through meaningful comparison of operating and financial performance over a period of time.
- It helps in preventing frauds and errors.
- It helps income tax and sales tax authorities.
- It is helpful in preparing accurate claim for loss of stock as a result of fire to the insurance company.

Disadvantages of Double Entry System

- This system requires to maintain wider number of books of accounts, which is not convenient to small concerns.
- There is no guarantee of absolute accuracy of the books of account which are maintained.
- It requires more clerical labour, so the system is costly.

Problem:1

From the following Trail balances of Mr.Ragunath for the year ending on 31.12.2023,prepare Final Accounts with the closing stock of Rs.15000.

Particulars	Debit (Rs)	Credit (Rs)
Stock (01.01.2023)	46800	-
Returns inwards	10000	-
Purchases	240000	-
Rents & Rates	4000	-
Sales	-	321900
Debenture	-	25000
Reserve Fund	-	45000
Sundry Debtors	60000	-
Salaries	3000	-
Commission Received	-	4900
Bad Debts	2000	-
Bad Debts Provision	-	6000
Wages	6000	-
Return Outwards	-	2000
Bills Receivable	25000	-

Investments	60000	-
Sundry Creditors	-	20000
Bank Overdraft	-	5000
Cash in Hand	11000	-
Goodwill	26000	-
Capital	-	63000
Furniture	15000	-
General Expenses	2000	-
Discount (Cr)	-	18000
	5,10,800	**5,10,800**

Solution:

Trading Account for the year ended 31.12.2023

Particulars	Rs	Rs	Particulars	Rs	Rs
To opening Stock		**46800**	By Sales		**321900**
To Purchases	**240000**		Less: Sales		**10000**
Less : Return	**2000**	**238000**	Return		**311900**
Outwards		**6000**			**15000**
To wages		**36100**	By Closing		
To Gross Profit		**326900**	Stock		**326900**

Profit and Loss Account for the year ended 31.12.2003

	Rs	Rs		Rs	Rs
To rent & rates		**4000**	By Gross Profit		**36000**
To Salaries		**3000**	By commission		
To Bad Debts		**2000**	Received		**4900**
To General Expenses		**2000**	By Discounts (Cr)		**18000**
To Net Profit		**48000**			
		59000			**59000**

Balance Sheet as on 31.12.2003

Liabilities	Amount	Amount	Assets	Amount	Amount
Capital		**63000**	Sundry Debetors		**60000**
Debenture		25000	Bills Receivable		**25000**
Reserve Fund		45000	Investments		**60000**
Bad Debts		6000	Cash in Hand		**11000**
Provision		20000	Goodwill		**26000**
Sundry Creditors		5000	Furniture		**15000**
Bank Overdraft		48000	Closing Stock		**15000**
Profit Loss A/c		2,12,000			**2,12,000**

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Problem:2

From the following Trail Balance Mr.Arun prepare the final accounts for the year ended on 31.12.2022

Debit Balance	Rs	Credit Balance	Rs
Land and Building	50000	Returns	2500
Purchases	110000	Discounts	1200
Stock	40000	Sales	205000
Returns	1500	Capital	115000
Wages	10000	Loans	15000
Salaries	9000	Commission	1500
Office Expenses	2400	Creditors	25000
Carriage	3200	Bills Payable	2350
Discounts	750		
Bad Debts	1200		
Insurance	1500		
Machinery	50000		
Furniture	10000		
Bills Receivable	20000		
Sundry Debtors	40000		
Cash	6000		
Office Equipment	12000		
	367550		367550

The following adjustments are to be made :

a) closing stock Rs.60000

b) Outstanding wages Rs.2000 and Rent Rs.3000

c) Depreciate land and buildings at 5% , Machinery at 10% , office equipment and furniture by 10%

d) Provide Reserve at 21 / 2% on debtors

e) Insurance prepaid Rs.200

f) Calculate interest on capital at 5%

Solution:

Trading Account of Mr.Arun for the year ended 31.12.2022

Particulars	Rs	Rs	Particulars	Rs	Rs
To Opening Stock		40000	By Sales		
To Purchase			Less : Sales		203500
(-) Returns		107500	Returns		
	110000				60000
To Wages	2500		By Closing Stock	205000	
(+) Outstanding		12000		1500	
To Carriage	10000	3200			
To Gross Profit	2000	100800			
		263500			**263500**

Profit and Loss Account of Mr.Arun for the year ended 31.12.2022

	Rs	Rs		Rs	Rs
To Salaries		9000	By Gross Profit		100800
To Office Expenses		2400	By Commission		1500
To Discounts		750	By Discounts		1200
To Bad Debts Provision		2200			
To Rent Outstanding		3000			
To Insurance					
(-) Prepaid		1300			
To Depreciation :					
5% on Land & Building	1500				
10% on Machinery	200				
10% on Office Equipment					
10% on Furniture	2500	9700			
To Interest on Capital	5000	5750			
To Net Profit	1200	69400			
(Transfer to Balance Sheet)	1000				
		103500			**103500**

Balance Sheet of Mr.Arun as on 31.12.2022

Liabilities	Amount	Amount	Assets	Amount	Amount
Capital	115000		Cash		6000
+ Interest on Capital	5750	120750	Land & Building	50000	
Loan		15000	(-) Depreciation	2500	47500
Creditors		25000	Machinery	50000	
Bills Payable		2350	(-) Depreciation	5000	45000
Outstanding Wages		2000	Furniture	10000	
Outstanding Rent		3000	(-) Depreciation	1000	9000
Net Profit (P&L) A/c		69400	Bills Receivable		20000
			Sundry Debtors	40000	

			(-) New Reserve	1000	39000
			Office Equipment	12000	
			(-) Depreciation	1200	10800
			Closing Stock		60000
			Prepaid Insurance		200
		237500			**237500**

Problem:3

From the following Trial Balance, Prepare the Trading and Profit and Loss Account of Mr.Vimal for the year ended December 31,2022 and the Balance Sheet as on that date.

Particulars	Debit	Credit
Kumaran's Capital	-	4000
Plant and Machinery	5000	-
Office Furniture and Fittings	260	-
Stocks on January 1, 2023	4800	-
Motor Van	1200	-
Sundry Debtors	4470	-
Cash in Hand	40	-
Cash at Bank	650	-
Wages	15000	-
Salaries	1400	-
Purchases	21350	-
Sales	-	48000
Bills Receivable	720	-
Bills Payable	-	560
Sundry Creditors	-	5200
Returns Inwards	930	-
Provision for doubtful debts	-	250
Drawings	700	-
Returns Outwards	-	550
Rent	600	-
Factory Lighting and heating	80	-
Insurance	680	-
General Expenses	250	-
Bad Debts	200	-
Discount	650	420
	58980	**58980**

The following adjustments are to be made :

i) Stock on December 31, 2022 Rs.5200

ii) 3 months factory lighting and heating is due but not paid Rs.30

iii) 5% depreciation to be written off on furniture

iv) Write off further bad debts Rs.70

v) The provision for doubtful debts is to be increased to Rs.300 and provision for discount on debtors be provided at 2%.

Solution:

Trading Account of Mr.Vimal for the year ended 31.12.2022

Particulars	Rs	Rs	Particulars	Rs	Rs
To Opening Stock		4800	By Sales	48000	
To Purchase	21350		Less : sales	930	47070
Less : return Outwards	550	20800	Returns		5200
To wages		15000	By Closing Stock		
To factory lighting and heating	80				
Add : Outstanding	30	110			
To Gross Profit		11560			
		52570			**52270**

Profit and Loss Account of Mr.Vimal for the year ended 31.12.2022

Particulars	Rs	Rs	Particulars	Rs	Rs
To salaries		1400	By Gross Profit		11560
To Rent		600	By Discount		420
To Insurance		680			
To General Expenses		250			
To Discount		650			
To Bad Debts & Provisions		320			
To Depreciation on Furniture		13			
To Discount on Debtors		82			
To Net Profit		7985			
		11980			**11980**

Balance Sheet of Mr.Vimal as in 31.12.2022

Liabilities	Amount	Amount	Assets	Amount	Amount
Capital	4000		Cash in hand		40
(-) Drawings	700		Cash in Bank		650
	3300		Plant & Machinery		5000
(+) Net Profit	7985	11285	Office Furniture & Fittings	260	

Bills Payable		560	(-) Depreciation	13	247
Sundry Creditors		5200	Motor Van		1200
Outstanding Factory			Bills Receivable		720
Lighting and Heating		30	Closing Stock		5200
			Sundry Debtors	4470	
			(-) Bad Debts	70	
				4400	
			(-) Provision for Doubtful Debts	300	
				4100	
			(-) Discount on Debtors	82	4018
		17075			**17075**

LET'S SUM UP

Dear Learner's, as we know, Final accounts are prepared to show business profit over a period of time and to reveal the business position (financial) at a point of time. A company, like any other forms of business organisation, has also to prepare its final accounts every year. Preparation of final accounts is compulsory for a company.

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Module - 6
INTERNATIONAL ACCOUNTING STANDARD (IFRS)

MEANING

International Financial Reporting Standards (IFRS) are a set of accounting standards that govern how particular types of transactions and events should be reported in financial statements. They were developed and are maintained by the International Accounting Standards Board (IASB).

OBJECTIVES OF IFRS

IFRS requires that financial statements be prepared using four basic principles: clarity, relevance, reliability, and comparability.

- The principle of clarity requires that financial statements be easy to read and easy to understand.
- IFRS guidelines allow substantial discretion in deciding what information will be included and how it will be presented in the financial statements. The final decision rests with the accountant.
- IFRS simply requires that the result be a true and fair• presentation of the company’s financial position, its financial performance, and its cash flow.
- But this is not as easy as it sounds.
- To achieve clarity accountants should choose simplicity over complexity.
- You have to remember that the readers of these financial statements might not necessarily have an accounting background.
- The financial position of the company should be clear to anyone reading the statements. This is the real challenge of IFRS.
- To develop, in the public interest, a single set of high quality, understandable, enforceable and globally accepted financial reporting standards based upon clearly articulated principles.
- These standards should require high quality, transparent and comparable information in financial statements and other financial reporting to help investors, other participants in the world’s capital markets and other users of financial information make economic decisions to promote the use and rigorous application of those standards in fulfilling the above objectives, to take account of, as appropriate, the needs of a range of sizes and types of entities in diverse economic settings to promote and facilitate adoption of International Financial Reporting

Standards (IFRS), being the standards and interpretations issued by the IASB, through the convergence of national accounting standards and IFRS.

Specific examples of accounting standards include

- Revenue recognition,
- Asset classification
- Allowable methods for depreciation
- What is considered depreciable
- Lease classifications and outstanding share measurement.

International Financial Reporting Standards represents an international financial reporting system and serves multiple purposes. Some of its significant goals in the financial world are as follows:

Create a Common Law

One of its key objectives is to ensure that common law is introduced and adopted by as many jurisdictions and countries as possible to bring everyone on the same page. It ensures that everyone follows the same guidelines and adopts a universal way of reporting business activities.

Aid analysis

It helps stakeholders in analyzing a company's performance and interpreting its financial position. For example, corporations and governments use these standards to make credible financial statements. It aids in categorizing and reporting financial data with accuracy and consistency. Such financial records promote better comprehension and help decision-making.

Assist in preparation of reliable financial records

By following International Financial Reporting Standards, the data presented in the books of accounts are likely to be accurate, reliable, uniform, and appropriate within the bounds of its rules. The high quality of financial records assists investors in making informed economic decisions.

Ensure comparability, transparency, and flexibility in reporting The consistency in reporting accounting practices enables easy comparison of the financial records of compliant companies across nations. Such comparisons allow investors to identify risks and opportunities before investing. As a result, it promotes foreign trade and investment.

Also, it requires full disclosure of all relevant information to its stakeholders. However, being principle-based, the rules are not very rigid and allow companies to adapt to them in their own way

Elements of IFRS

- Asset - A present economic resource controlled by the entity as a result of past events
- Liability - A present obligation of the entity to transfer an economic resource as a result of past events
- Equity
- Income
- Expenses

Importance of IFRS

It is treated as an international accounting standard and holds great importance for many countries and the world economy. Here is its significance:

Transparency

It encourages transparency and accountability of financial statements prepared by companies, small firms, and government agencies.

As a result, it minimizes the margin of error and manipulation of any holdings and irregularities of funds, transactions, and balances. Besides, it also motivates consistency and clarity of work.

Uniformity and Comprehensive

The International Financial Reporting Standards are developed to set uniformity in the presentation and understandability of statements.

When everyone follows and recognizes the standards, it becomes easy for companies and agencies to follow a common law that helps.

world economies compare their growth comprehensively. Also, it is easy to read for everyone.

Security and Flow

It helps track the flow of transactions, records funds information, and works towards attaining a security level for direct and indirect foreign investments across nations.

This accounting standard is essential when we are dealing with significant assets or getting into heavy transactions.

Accountability

It strengthens accountability by bridging the gap of incompetent financial reporting. If not complied with it, the companies may face penalties

. For example, last year, the Johannesburg Stock Exchange fined a sugar firm Tongaat Hulett Ltd. Its financial statements, account reports, and other information details did not comply with IFRS and were incorrect.

Uses of IFRS

This standard is a multi-layer set of rules and guidelines prepared like a blueprint to follow in accounting. Its main uses are as follows:

- **Financial Tool**

The International Financial Reporting Standards bring efficiency, accuracy, and data transparency to serve public interests for growth, trust, and sustainability of the world economy

. For example, the International Organization of Securities Commissions (IOSCO) is working with the IFRS to set up a new body by November 2021 to postulate mandatory global standards on climate change in company disclosures. The IOSCO will also eliminate any errors or conflicts by going interoperable with the global baseline.

- **Principles and Guide**

The companies run their whole business and represent their financial data and information as per the IFRS accounting principles. If they fail to do so, they may be penalized for it. Hence, it assures the trustworthiness of a company.

- **Promotes Decision Making**

The standards help investors make wise decisions regarding their investment by providing a clear picture of company reports and financial statements. It is possible because of its singular and universal language, making it easy to comprehend.

- **Improves Economy**

Globally, investors are more open to investing in companies with IFRS- compliant financial records. Again, it is because such reports are presumed to be authentic, easily understandable, and comparable. This credibility opens the economy to foreign investment and thereby paves the way for economic progress.

Role of IFRS

- **Global Acceptance**

IFRS is a globally accepted accounting standard, and its adoption in India will bring the country's accounting practices in line with international best practices. This will enable Indian companies to compete globally and attract foreign investment.

- **Improved Transparency**

IFRS promotes transparency and consistency in financial reporting, making it easier for investors to understand a company's financial performance.

- **Standardization**

IFRS provides a standard set of accounting rules, which reduces the differences between accounting practices across countries.

- **Reduced Cost of Capital**

The adoption of IFRS in India will increase the transparency and comparability of financial statements, which could reduce the cost of capital for Indian companies

The adoption of IFRS-based accounting standards in India has been a gradual process, and it has been implemented in a phased manner. The adoption of Ind AS has brought Indian accounting standards closer to IFRS, which has improved the transparency and comparability of financial statements. While the adoption of Ind AS has its own set of challenges, such as the cost of adoption and regulatory hurdles, the benefits of convergence with IFRS are significant. In conclusion, the adoption of IFRS-based accounting standards is essential for Indian companies to remain competitive in the global market.

LET'S SUM UP

Dear Learner's we know that the International Financial Reporting Standards (IFRS) are a set of accounting rules for public companies with the goal of making company financial statements consistent, transparent, and easily comparable around the world. This helps for auditing, tax purposes, and investing.

SELF – ASSESSMENT QUESTIONS

Short-Answers

1. Define Accounting. Explain the functions of Accounting.
2. Explain the major conventions followed in the preparation of Financial statements.
3. What are limitations of Financial Accounting?
4. What is meant by IFRS?
5. Write a objective of financial management?

Essay-Type Answers

6. What are the functional areas of financial management?
7. Write note on profit maximization vs wealth maximization.
8. Finance function of a business is closely related to its other function" Discuss.

GLOSSARY	
Financial Accounting	Financial accounting standards for business enterprises to serve in the preparation of financial statements.
Introduction of Accounting	Accounting is called the "Language" of Business. It's referred as the recording transactions of the various financial and activities to work effectively and efficiently.
Needs of Accounting	The ultimate aim of any business is to earn a profit. There are a large number of transactions in the business every day.
Meaning of Accounting	Accounting is the art of recording Classifying, Summarizing analysing. and reporting of business transactions and interpreting their effect of the business concerns.
Definition of Accounting	Accounting is an art of recording, classifying and summarizing in a Significant manner the terms of money transaction and events which are in part at least, of a financial character and interpreting this result.
Functions and objectives in Accounting	To Keep Systematic records of financial transaction. To meet the legal requirements To Protect business properties.
Uses of an Accounting Information	External groups are the persons outside the organization; following external groups are very much interested in accounting information
External groups	Investors Creditors Government
Internal groups	Owner Management - Accounting information Employees
Branches of Accounting	Financial Accounting

	Management Accounting Cost Accounting
Financial Accounting	Financial Accounting records business transactions taking place during the accounting period with a view to prepare financial statements.
Functions of Financial Accounting	Recording Business Transaction Managerial Functions Legal Requirement Function
Limitation of Financial Accounting	Incomplete Information Permits Alternative Treatments Only Quantitative Information
Management Accounting	Management accounting covers various areas such as cost accounting, budgetary control, inventory control, etc.
American Accounting Association	“Management accounting includes the methods of concepts necessary for effective planning for choosing among alternative business actions and for control through the evaluation and interpretation of performance”.
Nature of characteristics of Management Accounting	It provides data not the decisions Management Accounting is concerned with Future It stresses on the study of causes and effect relationship.
Scope of Management Accounting	Financial Accounting Cost Accounting Revaluation Accounting
Limitation of Management Accounting	Wide Scope Based on Financial and cost accounts Lack of Knowledge
Tools and Technique used in Management Accounting	Financial Planning Analysis of Financial Statement Historical Cost Accounting
Cost Accounting	Cost Accounting is the process of ascertaining cost from the point at which expenditure is incurred or committed to the establishment of its ultimate relationship with the cost centres and cost units

UNIT- II

FINANCIAL STATEMENT ANALYSIS

FINANCIAL STATEMENT ANALYSIS

Financial Statement Analysis - Techniques of Financial Statement Analysis: Common Size and Comparative Financial Statements, Trend Analysis, Ratio Analysis, Fund Flow Statement –Statement of Changes in Working-Preparation of Fund Flow Statement-Cash Flow Statement Analysis –Distinction Between Fund Flow And Cash Flow Statement -Problem

UNIT MODULE STRUCTURING

1. Financial Statement Analysis
2. Techniques of Financial Statement Analysis:
3. Ratio Analysis
4. Fund Flow Statement
5. Cash Flow Statement Analysis

UNIT OBJECTIVES

- Understand the meaning and types of financial statement.
- Understand the objectives of financial statements.
- Use ratio analysis in the working capital management.
- The meaning, uses and limitations of ratio analysis.
- Understand the Position, operational efficiency, capital structure, profitability and solvency.
- Understand the purpose and preparation of cash flow statement.

FINANCIAL STATEMENT ANALYSIS

Dear Learners, Just as there lot of business transaction entries in daily activities to the business accounts the information provided in the financial statements, will very important role to take decisions through analysis and interpretation. Financial analysis is the process of identifying the financial strengths and weaknesses of the organisation by establishing the balance sheet and the profit and loss account.

There are various methods or techniques used in analysing financial statements, such as comparative statements, trend analysis, common-size statements, and schedule of changes in working capital, funds flow and cash flow analysis.

MEANING AND CONCEPT OF FINANCIAL ANALYSIS

In this topic financial analysis, also known as analysis and interpretation of financial statements refers to the process of determining financial position of firm by establishing strategic relationship between the items of balance sheet, profit and loss accounts and other operative data.

DEFINITION

According to MetCalf and Titard,

"Is a process of evaluating the relationship between component parts of financial statements to obtain a better understanding of a firm's position and performance.

The term financial statement analysis includes both analysis and interpretation. The term analysis is used to mean the simplification of financial data by classification of the data given in the financial statements analysis.

USES OF FINANCIAL STATEMENT ANALYSIS

- It helps to the financial manager
- It helps to the top management
- It uses to Creditors
- It helps to the investors and others

NEEDS OF FINANCIAL STATEMENT ANALYSIS

A distinction may be drawn between various types of financial analysis. This distinction is made either on the basis of

- Material used for the same or
- According to modus operandi of the analysis

- **According to material used**

i) **External Analysis** –

It is made by those who do not have access to the detailed records of the company. One has to depend on published financial statements. The position of the external analyst has been improved in recent years owing to the governmental regulations requiring business undertakings to make available detailed information to the public through audited accounts.

ii) Internal Analysis

The internal analysis is accomplished by those who have access to the books of accounts and all other informations related to business. While conducting this analysis, the analyst is a part of the enterprise he is analysing. This type of analysis is for the executive of the enterprise or government or court agencies which may heve major regulatory and other jurisdiction over the business.

- **According to modus operandi of analysis**

Horizontal Analysis

When financial statements for a number of years are reviewed and analysed, the analysis is called horizontal analysis. As it is based on data from year to year rather than on one date or period of time as a whole, this is also known as “Dynamic Analysis”.

Vertical Analysis

It is frequently used for referring to ratios developed for one date or for one accounting period. Vertical analysis is also called ‘static analysis’. This is not very conductive to a proper analysis of the firm’s financial position and its interpretation as it does not enable to study data in perspective. This can only be provided by a study conducted over a number of years so that comparisons can be affected. Therefore, vertical analysis is not very useful.

TECHNIQUE OF FINANCIAL STATEMENT ANALYSIS

The analysis of financial statements consists of a study of relationship and trends to determine whether or not the financial position of the concern and its operating efficiency have been satisfactory. In the process of this analysis various tools/methods or devices are used by the financial analysis. The analytical tools generally available to an analyst for this purpose are as follows:

- Comparative Financial and Operating Statements
- Common-size Statements
- Trend Ratios or Trend Analysis
- Funds-flow and Cash-flow Analysis
- Ratio Analysis

COMMON SIZE STATEMENTS

Comparative statements that give only the vertical percentage or ratios for financial data without giving rupee values are known as common size statements. They are also known as 100% statements. For example, if the balance sheet items are expressed as the ratio of each asset to total assets and the ratio of each liabilities (taking the total balance sheet as 100), it will be called a common size balance sheet. Thus, a common size statement shows the relation of each component to the whole. It is useful in vertical financial analysis and comparison of two business enterprises at a certain date

COMPARATIVE STATEMENTS

The preparation of comparative financial and operating statements is an important device of horizontal financial analysis. Financial data become more meaningful when compared with similar data for a previous period or a number of prior periods. Statements prepared in a form that reflect financial data for two or more periods are known as Comparative Statements. Annual data can be compared with similar data for prior years.

The comparative balance sheet shows the effect of operations on the assets and liabilities, i.e., change in the financial position during the period under consideration.

TREND ANALYSIS

Trend Analysis is an important and useful technique of analysis and interpretation of financial statements. Under this technique of financial analysis, the ratios of different items for various periods are calculated and then a comparison is made. Generally, a period of five years is considered satisfactory. It might also be useful to compare such trends with similar trends in the firm generally and the industry concerned specially. The trend analysis shows the direction of progress-upward or downward. It is an important form of horizontal analysis of financial statements often called as ‘pyramid method’ of ratio analysis.

LET US SUM UP

An analysis of financial statements is the process of critically examining in detail accounting information given in the financial statements. For the purpose of analysis, individual items are studied, their interrelationships with other related figures are established and the data is sometimes rearranged to have better understanding of the information with the help of different techniques or tools for the purpose. Analysing financial statements is a process of evaluating relationship between component parts of financial statements to obtain a better understanding of firm's position and performance. The principal tools of financial analysis include comparative financial statements, common size statements, trend analysis, cash flow statements, ratio analysis and fund flow statements.

CHECK YOUR PROGRESS

The long term assets that have no physical existence but are rights that have value is known as

(A) Current assets (B) Fixed assets

(C) Intangible assets (D) Investments

2.According to net present value, projects that would be acceptable must have a

(A) Negative net present value (B) Zero net present value

(C) Positive net present value (D) Both B and C

3. Price per ratio is divided by cash flow per share ratio, is used for calculating

(A) Dividend to stock ratio (B) Sales to growth ratio

(C) Cash flow to price ratio (D) Price to cash flow ratio

4. Which of the following rules stands true while preparation of Schedule of changes in working capital?

(A) An increase in current assets increases working capital.

(B) An increase in current assets decreases working capital.

(C) An increase in current liabilities decreases working capital.

(D) An increase in current liabilities increases working capital

5. Funds Flow Statement is also known as

(A)Statement of Funds Flow (B) Statement of Sources and Application of Funds

(C) Statement of Sources and Uses of Funds (D) All of the above

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Module-2
RATIO ANALYSIS

MEANING OF RATIO

A ratio is a simple arithmetical expression of the relationship of one number to another.

According to Accountant's Handbook by Wixon, a ratio "is an expression of the quantitative relationship between two numbers".

In simple language ratio is one number expressed in terms of another and can be worked out by dividing one number into the other.

NATURE OF RATIO ANALYSIS

There are number of ratios which can be calculated from the information given in the financial statements, but the analyst has to select the appropriate data and calculate only a few appropriate ratios from the same keeping in mind the objective of analysis. The ratios may be used as a symptom like blood pressure, the pulse rate or the body temperature and their interpretation depends upon the calibre and competence of this analyst. The following are the four steps involved in the ratio analysis:

- Selection of relevant data from the financial statements depending upon the objective of the analysis.
- Calculation of appropriate ratios from the above data.
- Comparison of the calculated ratios with the ratios of the same firm in the past, or the ratios developed from projected financial statements or the ratios of some other firms or the comparison with ratios of the industry to which the firm belongs.
- Interpretations of the ratios.

INTERPRETATION OF THE RATIOS

- Single Absolute Ratio
- Group of Ratios
- Historical Comparison
- Projected Ratios

Inter-firm Comparison

GUIDELINES OR PRECAUTIONS FOR USE OF RATIOS

- Accuracy of Financial Statements
- Objective or Purpose of Analysis
- Selection of Ratios

- Use of Standards
- Calibre of the Analyst
- Ratios provide only a Base

USE AND SIGNIFICANCE OF RATIO ANALYSIS

- Managerial Uses of Ratio Analysis
    1. Helps in decision-making.
    2. Helps in financial forecasting and planning
    3. Helps in communicating
    4. Helps in Control
    5. Other Uses
- Utility to Shareholders/Investors
- Utility to Creditors
- Utility to Employees
- Utility to Government
- Tax audit Requirements

LIMITATIONS OF RATIO ANALYSIS

The ratio analysis is one of the most powerful tools of financial management. Though ratios are simple to calculate and easy to understand, they suffer from some serious limitations:

Limitations of Ratio Analysis
➢ **Limited use of single ratio**
➢ **Lack of adequate standards**
➢ **Inherent limitations of accounting**
➢ **Change of accounting procedure**
➢ **Window dressing**
➢ **Personal bias**
➢ **Incomparable**
➢ **Absolute figures distortive**
➢ **Price level changes**
➢ **Ratios no substitutes**

1. **Limited Use of a Single Ratio**. A single ratio, usually, does not convey much of a sense. To make a better interpretation a number of ratios have to be calculated which is likely to confuse the analyst than help him in making any meaningful conclusion.

2. **Lack of Adequate Standards**. There are no well accepted standards or rules of thumb for all ratios which can be accepted as norms. It renders interpretation of the ratios difficult.

3. **Inherent Limitations of Accounting**. Like financial statements, ratios also suffer from the inherent weakness of accounting records such as their historical nature. Ratios of the past are not necessarily true.

4. **Change of Accounting Procedure**. Change in accounting procedure by a firm often makes ratio analysis misleading, e.g., a change in the valuation of methods of inventories, from FIFO to LIFO increases the cost of sales and reduces considerably the value of closing stocks which makes stock turnover ratio to be lucrative and an unfavourable gross profit ratio.

5. **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 very careful in making a decision from ratios calculated from such financial statements. But it may be very difficult for an outsider to know about the window dressing made by a firm.

6**. Personal Bias**. Ratio is only means of financial analysis and not an end in itself. Ratios have to be interpreted and different people may interpret the same ratio in different ways.

7. **Uncompilable**. Not only industries differ in their nature but also the firms of the similar business widely differ in their size and accounting procedures, etc. It makes comparison of ratios difficult and misleading. Moreover, comparisons are made difficult due to differences in definitions of various financial terms used in the ratio analysis.

8. **Absolute Figures Distortive**. Ratios devoid of absolute figures may prove distortive as ratio analysis is primarily a quantitative analysis and not a qualitative analysis.

9. **Price Level Changes**. While making ratio analysis, no consideration is made to the changes in price levels and this makes the interpretation of ratios invalid.

10. **Ratios no Substitutes**. Ratio analysis is merely a tool of financial statements. Hence, ratios become useless if separated from the statements from which they are computed.

CLASSIFICATION OF RATIOS

- A. Liquidity (Short-term Solvency) Ratios
- B. Long-term Solvency
- C. Profitability Ratio
- D. Activity or Turnover Ratios
- E. Leverage or Capital Structure Ratios

Liquidity (Short-term Solvency) Ratios(Formula)

1. Current Ratio = $\frac{Current\ Assets}{Current\ Liabilities}$

Current Assets

Cash in hand and Bank, Stock, sundry Debtors, bills receivable, short term investments, marketable securities, accrued incomes, prepaid expenses.

Current Liabilities

Sundry creditors, bills payable, Bank overdraft, outstanding expenses, income received in advance, income tax provisions, bad debts provisions, dividend payable, any other account which is payable in short period.

2. Quick Ratio or Liquid Ratio or Acid test Ratio

Acid Test Ratio = $\frac{Quick\ Assets}{Quick\ Liabilities}$ or $\frac{Liquid\ Assets}{Liquid\ Liabilities}$ or $\frac{LA}{CL}$

Quick assets or Liquid assets = All current assets except stock.

Quick Liabilities or Liquid liabilities = All current liabilities except bank overdraft

3. Cash Position Ratio = $\frac{Cash+Marketable\ Securities}{Current\ Liabilities}$

4. Net working Capital Ratio = $\frac{Net\ working\ Capital}{Net\ Assets}$

Net working capital = Current assets – Current liabilities

5. Solvency Ratio = $\frac{Outside\ Liabilities}{Total\ Assets}$

B. Long-term Solvency

B. Long-term Solvency Ratios

1. Debt-Equity Ratio = $\frac{Debt}{Equity}$ (or) $\frac{External\ Equities}{Internal\ Equites}$ (or) $\frac{Outsider's\ Fund}{Shareholder's\ Fund}$

External Equities refer to the total outside liabilities. The term internal equity refers to all claims of preference shareholders and equity share holders such as share capital reserves and surplus. Outsiders’ fund refers to all short term debts like mortgage, bills etc.

Computation of long term financial ratios, the term debt, like debentures are to be considered.

Acceptable norm for the ratio is considered to be 2:1

2. Proprietary Ratio = $\frac{Shareholder's\ Fund}{Total\ Asset}$ (or) $\frac{Shareholder's\ Fund}{Total\ Tangible\ Assets}$

Shareholder's fund includes preference share capital, Equity share capital, Reserves surplus, Profit & Loss Account Balance if any.

Total Assets

A total asset represents all assets including goodwill. But total tangible assets means total assets minus goodwill, Profit & Loss A/c (Debit) Balance, Preliminary Expenses.

3. Ratio of Fixed assets to Proprietor's fund $= \frac{Fixed\ Assets}{Proprietor's\ Fund}$

[Fixed assets are valued at original cost of the assets less depreciation]

4. Current assets to proprietor's fund Ratio $= \frac{Current\ Assets}{Proprietor's\ Fund}$

C. Profitability Ratios

1. Gross Profit Ratio = $\frac{Gross\ Profit}{Sales}$ X 100
2. Net Profit Ratio = $\frac{Net\ Profit}{Sales}$ X 100
3. Operating Ratio = $\frac{Cost\ of\ Goods\ Sold + Operating\ Expenses}{Sales}$ X 100

   Cost of Goods Sold = Sales – Gross Profit

   Operating Expenses = All the expenses debited in the profit & Loss A/c except financial expenses i.e., Administrative Expenses , selling & Distribution Expenses, Financial Expenses.

   Financial expenses may or may not include the operating expenses.
4. Return in Capital Employed = $\frac{Return}{Capital\ Employes}$ X 100

   Return : Net Profit

   Capital Employed : Share holders fund + long term liabilities

   (or)

   Fixed assets + Current Assets – Current Liabilities

   $\frac{Profit\ Before\ Tax\ and\ Interest}{Capital\ Employed}$
5. Operating Profit Ratio = $\frac{Operating\ Profit}{Net\ Sales}$ X 100

   Operating Profit = Net Profit + Non-Operating Expenses + Non-operating Income

6. Return on Total Assets = $\frac{Return}{Total\ Assets}$ X 100 [Return=PAT]

7. Return on Shareholder Return = $\frac{Return}{Shareholder's\ Fund}$ X 100

8. Dividend Pay-out Ratio = $\frac{Dividend\ Per\ Share}{Earning\ Per\ Share}$

9.Dividend Per Share = $\frac{Dividend\ paid\ to\ Equity\ Shareholders}{No.of\ Equity\ Shares}$

10.Earning Per Equity Share = $\frac{Profit\ Available\ to\ Equity\ Shares}{No.of\ Equity\ Shares}$

11.Dividend Yield = $\frac{Dividend\ per\ Share}{Market\ Price\ Per\ Share}$

12.Price Earnings Ratio = $\frac{Market\ Price\ of\ a\ Share}{Earning\ Per\ Share}$

13.Fixed Interest Coverage = $\frac{Operating\ Income}{Annual\ Interest\ Expenses}$

14.Interest Coverage Ratio = $\frac{EBIT}{Fixed\ Interest\ Expenses}$

D. Activity or Turnover Ratios (Formula)

1. Stock Turnover Ratio = $\frac{Cost\ of\ Goods\ Sold}{Average\ Stock}$
2. Debtors Turnover Ratio or Debtors Velocity

   = $\frac{Debtors+Bills\ Receivable}{Credit\ Sales}$ X No. of Working Days
3. Creditors Turnover Ratio = $\frac{Creditors+Bills\ Payable}{Credit\ Purchase}$ X 365
4. Average Payment = $\frac{Account\ Payable}{Net\ Credit\ Purchase}$ X 365
5. Working Capital Turnover Ratio = $\frac{Cost\ of\ Sales}{Net\ Working\ Capital}$
6. Fixed Assets Turnover Ratio = $\frac{Cost\ of\ Sales}{Net\ Fixed\ Assets}$
7. Total Capital Turnover Ratio = $\frac{Cost\ of\ Sales}{Total\ Capital\ Employed}$
8. Capital Turnover Ratio = $\frac{Cost\ of\ Sales}{Net\ Working\ Capital}$

9. Current Assets Turnover Ratio $= \frac{Cost\ of\ Sales}{Current\ Assets}$

10. Sales to Net worth Ratio $= \frac{Cost\ of\ Sales}{Net\ Worth}$

11. Experience Ratio $= \frac{Individual\ Expenses}{Sales}$

E. Leverage or Capital Structure Ratios

1. Debt – Equity Ratio $= \frac{Debt}{Equity}$

2. Proprietary Ratio $= \frac{Shareholder's\ Fund}{Total\ Assets}$

3. Capital Gearing Ratio $= \frac{Fixed\ Interest\ Bearing\ Securities}{Equity\ Share\ Capital}$

(or)

$$\frac{Pre\ Share\ Capital + Debentures + Other\ Borrowed\ Funds}{Equity}$$

4. Reserves to Equity Capital Ratio $= \frac{Revenue\ Reserve}{Equity\ Capital}$

5. Fixed Assets to Net worth Ratio $= \frac{Fixed\ Assets}{Net\ Worth}$

6. Current Assets to Net Worth Ratio $= \frac{Current\ Assets}{Net\ Worth}$

7. Current Liabilities to Net Worth Ratio $= \frac{Current\ Liabilities}{Net\ Worth}$

8. Fixed Assets to Current Assets Ratio $= \frac{Fixed\ Assets}{Current\ Assets}$

9. Fixed Assets Ratio $= \frac{Fixed\ Assets}{Long\text{–}Term\ Assets}$

PROBLEM 1

From the following particulars pertaining to Assets and Liabilities of a company calculate

a) Current Ratio b) Liquidity Ratio c) Proprietary Ratio

d) Debt-equity Ratio e) Capital Gearing Ratio

Liabilities	Rs	Assets	Rs
5000 equity shares Rs.10 each	5,00,000	Land &Building	6,00,000
8% 2000 pre shares Rs.100 each	2,00,000	Plant & Machinery	5,00,000
9% 4000 Debentures of Rs.100 each	4,00,000	Debtors	2,00,000
Reserves	3,00,000	Stock	2,40,000
Creditors	1,50,000	Cash and Bank	55,000
Bank overdraft	50,000	Prepaid expenses	5,000
	16,00,000		**16,00,000**

Solution :

i. Current Ratio = $\frac{Current\ Assets}{Current\ Liabilities}$

Current Assets = Stock + Cash + Prepaid Expenses + Debtors

= 2,40,000 + 55,000 + 5,000 + 2,00,000 = 5,00,000

Current Liabilities = Creditors + Bank Overdraft

= 1,50,000 + 50,000 = 2,00,000

= $\frac{5,00,000}{2,00,000}$ = 2.5 : 1

ii. Liquid Ratio = $\frac{Liquid\ Assets}{Liquid\ Liabilities}$

Liquid Assets = Cash and Bank + Debtors

= 55,000+2,00,000 = 2,55,000

Liquid Liabilities : Creditors = 1,50,000

Liquid Ratio = $\frac{2,55,000}{1,50,000}$ = 1.7 : 1

iii. Proprietary Ratio = $\frac{Proprietor's\ Fund}{Total\ Tangible\ Assets}$

Proprietor's Funds = Equity Share Capital + Preference share Capital + Reserves and Surplus

= 5,00,000 + 2,00,000 + 3,00,000

Proprietary Ratio = $\frac{10,00,000}{16,00,000}$ = 0.625 : 1

iv. Debt – Equity Ratio = $\frac{External\ Equities}{Internal\ Equities}$

External Equities = Long-term Liabilities + Short term Liabilities

= 4,00,000 + 2,00,000 = 6,00,000

Internal Equities = Proprietor's Funds

$$= \frac{6,00,000}{10,00,000} = 0.6 : 1$$

v. Capital Gearing Ratio = $\frac{Fixed\ Interest\ Bearing\ Securities}{Equity\ Share\ Capital + Reserves}$

Fixed Interest Bearing Securities =	Preference Shares	2,00,000
	Debentures	4,00,000
		6,00,000

$$= \frac{6,00,000}{8,00,000} = 0.75 : 1$$

PROBLEM 2

From the following information you are required to prepare a balance sheet:

Current Ratio	-	1.75
Liquid Ratio	-	1.25
Stock Turnover Ratio (Cost of Sales /Closing Stock)	-	9
Gross Profit Ratio	-	25%
Debt Collection Period	-	1 ½ months
Reserves and Surplus to Capital	-	0.2
Turnover of Fixed Assets	-	1.2
Capital Gearing Ratio	-	0.6
Fixed Assets to Net worth	-	1.25
Sales for the year	-	₹ 12,00,000

Solution:

(i)

Cost of Goods Sold	+	Gross Profit	=	Sales
↓		↓		↓
75%	-	25%	=	100%
9,00,000	+	3,00,000	=	12,00,000

(ii) Stock Turnover Ratio = 9

$$\frac{\text{Cost of Goods Sold}}{\text{Average Stock (X)}} = 9 \qquad \frac{9,00,000}{X} = 9$$

$$X = \frac{9,00,000}{9}$$

Stock = 1,00,000

(iii)

Current Ratio	1.75	3,50,000
Quick Ratio	1.25	2,50,000
Stock	0.50	1,00,000

(iv) Debt Collection Period =1 ½ months

$$\frac{\text{Debtors}}{\text{Sales}} \times 12 = 1.5$$

Debtors = 1,50,000

$$X = 12,00,000 \times \frac{1.5}{12}$$

Debtors = 1,50,000

(v) Turnover of Fixed Assets = 1.2

$$\frac{\text{Turnover}}{\text{(X) Fixed Assets}} = 1.2 = \frac{9,00,000}{X} = 1.2$$

$$X = \frac{9,00,000}{1.2}$$

Fixed Assets = 7,50,000

(i) Fixed Assets to : Networth = 1.25:1

1.25 : 1.00

7,50,000 : 6,00,000

(ii) Reserves and Surplus to Capital : 0.2:1

Reserves + Share Capital = Net worth

0.2 + 1.00 = 1.2

1,00,000 + 5,00,000 = 6,00,000

(iii) Capital Gearing Ratio

$$\frac{\text{(X) Fixed Interest Bearing}}{\text{Equity Share Capital}} = 0.6$$

X= 5,00,000X0.6

Long-term Debt = ₹3,00,000

Balance Sheet

Liabilities	₹	Assets	₹
Equity Share Capital	5,00,000	Fixed Assets	7,50,000
Long-term Debt	3,00,000	Current Assets	3,50,000
Reserves	1,00,000		
Current Liabilities	2,00,000		
	11,00,000		**11,00, 00**

PROBLEM 3

Calculate the following ratios from the balance sheet given below:

a) Debt –Equity ratio

b) Liquidity ratio

c) Fixed assets to current assets

d) Fixed assets turn over

Balance sheet

Liabilities	Rs.	Assets	Rs.
Equity shares of Rs.10 each	1,00,000	Goodwill	60,000
Reserves	20,000	Fixed assets	1,40,000
P.L.A/c	30,000	Stock	30,000
Secured loan	80,000	Sundry debtors	30,000
Sundry creditors	50,000	Advances	10,000
Provision for taxation	20,000	Cash balance	30,000
	3,00,000		3,00,000.

The sales for the year were Rs. 5,60,000.

Solution :

(i) Debt – Equity Ratio = $\frac{\text{Long - Term Debt}}{\text{Shareholders fund}}$

Long – Term Debt = Secured loan ₹ 80,000

Shareholder's Fund = Equity Share Capital + Reserves + P.L.A/c

= 1,00,000 + 20,000 + 30,000 = 1,50,000

Debt – Equity Ratio = $\frac{80,000}{1,50,000}$ = 0.53

Liquidity Ratio = $\frac{\text{Liquid Assets}}{\text{Liquid Liabilities}}$

Liquid Assets = Sundry Debtors + Advances + Cash Balance

= 30,000+ 10,000+ 30,000 = 70,000

Liquid Liabilities = Provision for Taxation + sundry creditors

= 20,000 + 50,000 = 70,000

Liquid Ratio = $\frac{70,000}{70,000}$ = 1

(iii) Fixed Assets to Current Assets

Fixed Assets 1,40,000

= ———— = ———— = 1.4

Current Assets 1,00,000

$$\text{Fixed Assets Turnover} = \frac{\text{Turnover}}{\text{Fixed Assets}} = \frac{5,60,000}{1,40,000} = 4$$

PROBLEM 4

1. Calculate the current assets of a company from the following information:
   a) Stock turnover 5 times
   b) Stock at the end is Rs.5,000; more than the stock in the beginning
   c) Sales (all credit) Rs.2,00,000
   d) Gross profit ratio 20%
   e) Current liabilities Rs.60,000
   f) Quick ratio 0.75

Solution:

(1) Cost of Goods Sold + G.P. = Sales

$$\begin{array}{ccccc} \text{Cost of Goods Sold} & + & \text{G.P.} & = & \text{Sales} \\ \downarrow & & \downarrow & & \downarrow \\ 80\% & + & 20\% & = & 100 \\ \downarrow & & \downarrow & & \downarrow \\ 1,60,000 & + & 40,000 & = & 2,00,000 \end{array}$$

(2) Stock Turnover Ratio = 5 times

$$\frac{\text{Cost of Goods Sold}}{\text{Average Stock (X)}} = 5 \text{ times}$$

$$X = \frac{1,60,000}{5}$$

Average Stock = ₹ 32,000

Full Stock Value = 32,000 x 2 = 64,000

Less: Excess Value = 5,000

59,000

$$\frac{59,000}{2} = 29,500$$

Opening Stock = 29,500

Closing Stock = 29,500+ 5,000 = 34,500

(3) Quick Ratio

Quick Assets	: Quick Liabilities
0.75	: 1.00
45,000	: 60,000

Current Assets

Closing Stock = 34,500

Assets = 45,000

79,500

LET US SUM UP

Ratio analysis is a quantitative analysis tool used to interpret the financial statements in terms of the operating performance and financial position of a firm. Ratio analysis can be classified into two main categories: A. Operating Performance Ratios B. Risk Analysis Operating performance ratios helps in gauging the operating performance of the firm. It can be further divided into two categories: A. Efficiency ratios B. Profitability ratios Risk analysis ratios helps in gauging the financial risk or strength of balance sheet from both short-term and long-term perspective.

CHECK YOUR PROGRESS

6. Given Net profit for the year Rs 2, 50,000 transferred to general reserves Rs 40,000 and old machinery bought for Rs 50,000 was sold for Rs 20,000. Calculate funds from operations.

(A) Rs 2, 80,000 (B) Rs 2, 20,000

(C) Rs 2, 90,000 (D) Rs 3, 00,000

7. As per Accounting Standard-3, Cash Flow is classified into

(A) Operating activities and investing activities

(B) investing activities and financing activities

(C) Operating activities and financing activities

(D) Operating activities, financing activities and investing activities

8. In cash flow statement, the item of interest is shown in

(A) Operating Activities (B) Financing Activities

(C) Investing Activities (D) All of the above

9. Net income available to stockholders is $125 and total assets are $1,096 then return on common equity would be

(A) 0.00114 (B) 0.114 (C) 0.12 times (D) 0.12

10. A technique that is used in comparative analysis of financial statement is

(A)graphical analysis (B) preference analysis

(C) common size analysis (D) returning analysis

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Module-3
FUND FLOW STATEMENT

FUNDS FLOW STATEMENTS

- Funds flow statements is a method by which we study changes in the financial position of a business enterprise between beginning and ending financial statements date. It is a statement showing sources and uses of funds for a period of time.
- In the words of Anthony, "The funds flow statement describes the sources from which additional funds were derived and the use to which these sources were put".
- The purpose of the statement is to indicate clearly the requirement of funds and how they are proposed to be raised and the efficient utilisation and application of the same.
- Funds flow statement is a statement which indicates various means by which the funds have been obtained during a certain period and the ways to which these funds have been used during that period. The term 'funds' used here means working capital, i.e., the excess of current assets over current liabilities.
- Funds flow statement is called by various names such as Sources and Application of Funds; Statement of Changes in Financial Position; Sources and Uses of Funds; Summary of Financial Operations; Where came in and Where gone out statement; Where got, Where gone statement; Movement of Working Capital Statement; Movement of Funds statement; Funds Received and Disbursed statement; Funds Generated and Expended Statement; Sources of Increase and Application of Decrease; Funds Statement, etc.,

USES, SIGNIFICANCE AND IMPORTANCE OF FUNDS FLOW STATEMENT

- It helps in the analysis of financial operations.
- It throws light on many perplexing questions of general interest.
- It helps in the formation of a realistic dividend policy.
- It helps in the proper allocation of resources.
- It acts as a future guide.
- It helps in appraising the use of working capital.
- It helps knowing the overall creditworthiness of a firm.

LIMITATIONS OF FINANCIAL STATEMENT ANALYSIS

- The analysis of financial statements is only a means to reach conclusions and not conclusion in itself. So, it cannot work as a substitute for sound judgement. The judgement ultimately, will depend upon the intelligence and skill of the analyst.
- The data down from one-year statements have limited use and value. So, it will be dangerous to depend upon them only.

- The basic nature of financial statements is historic. Past can never be hundred percent represented of the future. Hence, future of business events should be forecasted and interpreted in this context.
- The results of the analysis of financial statements should not taken as an indication of good or bad management. The ratios or other data explain only probable state of events.
- The data of organisation are rarely or fully comparable with that of the other because there is different in the nature of products, procedures in accounting, cost of plant and machinery, nature and pattern of financing etc. But, analysts generally ignore these facts and make an objective comparison of two businesses. The results will be naturally misleading.

PROBLEM 1

Following are the comparative balance sheets of a HAL company for the year 1989 and 1999.

Balance Sheet

Liabilities	1989 ₹	1990 ₹	Assets	1989 ₹	1990 ₹
Share capital	70,000	74,000	Cash	9,000	7,800
Debentures	12,000	6,000	Debtors	14,900	17,700
Creditors	10,360	11,840	Stock	49,200	42,700
Profit & loss A/c	10,740	11,360	Goodwill	10,000	5,000
			Land	20,000	30,000
	1,03,100	**1,03,200**		**1,03,100**	**1,03,200**

The following additional information is also available:
(i) Dividends were paid totalling ₹4,000.
(ii) Land was purchased for ₹ 10,000. You are required to prepare fund flow statement.

Solution

Fund Flow Statement

Source of funds	Rs…	Application of funds	Rs…
Issue of shares	4,000	Redemption of Debenture	6,000
Fund from operation	9,620	Dividend paid	4,000
Decrease in working capital	6,380	Purchase of Land	10,000
	20,000		**20,000**

Workings: (i) Statement of changes in working capital

	1989 ₹	1990 ₹
Current Assets :		
Cash	9,000	7,800
Debtors	14,900	17,700
Stock	49,200	42,700
Total current Assets	**73,100**	**68,200**
Current Liabilities :		
Creditors	10,360	11,840

Total Current Liabilities	10,360	11,840
Working capital	62,740	56,360
Decrease in working capital	(62,740 - 56,360)	6,380

(ii)Profit and Loss Account

To Balance c/d	11,360	By Balance b/d	10,740
To Goodwill written of	5,000	By Fund from operation	9,620
To Dividend Paid	4,000		
	20,360		20,360

(iii) Land Account

To Balance b/d	20,000	By Balance c/d	30,000
To Cash	10,000		
	30,000		30,000

PROBLEM 2

From the following balance sheets of Exe Ltd. prepare
(a) A statement of changes in working capital
(b) A fund flow statement

Liabilities	1999 ₹	2000 ₹	Assets	1999 ₹	2000 ₹
Equity share capital	3,00,000	4,00,000	Good will	1,15,000	90,000
Redeemable preference share capital	1,50,000	1,00,000	Land & Building	2,00,000	1,70,000
General reserve	40,000	70,000	Plant	80,000	2,00,000
Profit & loss A/c	30,000	48,000	Debtors	1,60,000	2,00,000
Proposed dividend	42,000	50,000	Stock	77,000	1,09,000
Creditors	55,000	83,000	Bills receivable	20,000	30,000
Bills payable	20,000	16,000	Cash in hand	15,000	10,000
Provision for taxation	40,000	50,000	Cash at bank	10,000	8,000
	6,77,000	8,17,000		6,77,000	8,17,000

The following additional information is also available:

(a) Depreciation of ₹10,000 and ₹ 20,000 have been charged on plant and land buildings respectively in 2000.

(b) A dividend of ₹20,000 has been paid in 2000.

(c) Income tax of ₹ 35,000 has been paid during 2000.

Solution

Fund Flow Statement

Source of funds	**₹**	**Application of funds**	**₹**
Issue of Equity shares	1,00,000	Redemption of Redeemable	50,000
Sale of Land & Buildings	10,000	Dividend paid	20,000
Fund from operation	2,18,000	Income tax paid	35,000
		Purchase of Plant	1,30,000
		Pro osed dividend paid	42,000
		Increase in working capital	51,000
	3,28,000		3,28,000

Workings : (i) Statement of changes in working capital

Current Assets :	**1999 ₹**	**2000 ₹**
Debtors	1,60,000	2,00,000
Stock	77,000	1,09,000
Bills receivable	20,000	30,000
Cash in hand	15,000	10,000
Cash at Bank	10,000	8,000
Total current assets	**2,82,000**	**3,57,000**
Current Liabilities:		
Creditors	55,000	83,000
Bills paya le	20,000	16,000
Total current liabilities	**75,000**	**99,000**
Working capital	**2,07,000**	**2,58,000**
Increase in working capital	**51,000**	**(2,58,000 - 2,07,000)**

(ii) Profit and Loss Account

To General Reserve	30,000	By Balance c/d	30,000
To Goodwill written off	25,000	By Fund from operation	2,18,000
To Depreciation on Plant	10,000		
To Depreciation on Building	20,000		
To Dividend paid	20,000		
To Balance c/d	48,000		
To Income Tax provided	45,000		
To Proposed dividend	50,000		
	2,48,000		**2,48,000**

(iii) Provision for Taxation

To cash (Tax Paid)	35,000	By Balance b/d	40,000
To Balance c/d	50,000	By P&L A/c	45,000
	85000		**85,000**

(iv) Land & Building Account

To Balance b/d	2,00,000	By Depreciation	20,000
		By Balance c/d	1,70,000
		By Cash (Sale)	10,000
	2,00,000		**2,00,000**

(v) Plant Account

To Balance b/d	80,000	By Depreciation	10,000
To cash	1,30,000	By Balance c/d	2,00,000
	2,10,000		**2,10,000**

PROBLEM 3

Following are the comparative balance sheets, prepare schedule of changes in working capital.

Liabilities	**Dec 1980 Rs.**	**Dec 1981 Rs.**	**Assets**	**Dec 1980 Rs.**	**Dec 1981 Rs.**
Share capital	2,00,000	2,50,000	Cash	30,000	47,000
Creditors	70,000	45,000	Debtors	1,20,000	1,15,000
Retained Earnings	10,000	23,000	Land	50,000	66,000
			Stock	80,000	90,000
	2,80,000	3,18,000		2,80,000	3,18,000

Solution

Fund flow statement

Source of funds	**Rs.**	**Application of funds**	**Rs.**
Issue of shares	50,000	Purchase of Land	16,000
Fund from operation	13,000	Increase in working capital	47,000
	63,000		63,000

Workings: (i) Statement of changes in working capital

	Dec 1980 ₹	**Dec 1981 ₹**
Current Assets :		
Cash	30,000	47,000
Debtors	1,20,000	1,15,000
Stock	80,000	90.000
Total current Assets	**2,30,000**	**2,52,000**
Creditors	70 000	45,000

Total Current Liabilities	70,000	45,000
Working capital	1,60,000	2,07,000
Increase in working capital	(1,60,000 -2,07,000)	47,000

ii)Profit and Loss Account

To balance b/d	23,000	By balance c/d By Fund from operation	10,000 13,000
	23,000		23,000

PROBLEM 4

Liabilities	1999 ₹	2000 ₹	Assets	1999 ₹	2000 ₹
10% preference shares	1,00,000	1,10,000	Machinery	2,00,000	2,30,000
Equity shares	2,20,000	2,50,000	Buildings	1,50,000	1,76,000
Share Premium	20,000	26,000	land	18,000	18,000
Profit & loss A/c	1,04,000	1,34,000	cash	42,000	32,000
12% debentures	70,000	64,000	Debtors	38,000	38,000
Creditors	38,000	46,000	Bills receivable	42,000	62,000
Bills payable	5,000	4,000	stock	84,000	98,000
Provision for tax	10,000	12,000			
Dividends Payable	7,000	8,000			
	5,74,000	**6,54,000**		**5,74,000**	**6,54,000**

You are required to prepare a statement of sources and application of funds.

Solution

Fund flow statement

Source of funds	Rs.	Application of funds	Rs.
Issue of preference shares Issue of equity shares Share premium received Fund from operation	10,000 30,000 6,000 30,000	Purchase of machinery Purchase of Building Increase in working capital Redemption of debenture	30,000 26,000 14,000 6,000
	76,000		76,000

Workin

	1999 ₹	2000 ₹
Current Assets :		
Cash	42,000	32,000
Debtors	38,000	38,000
Bills receivable	42,000	62,000
Stock	84,000	98,000
Total current Assets	**2,06,000**	**2,30,000**
Current liabilities		
Creditors	38,000	46,000
Bills Payable	5,000	4,000
Provision for tax	10,000	12,000
Dividend payable	7000	8,000
Total Current Liabilities	60,000	70,000
Working capital	1,46,000	1,60,000
Increase in working capital	(1,46,000 –1,60,000)	14,000

(i) Profit and Loss Account

To balance b/d (closing)	1,34,000	By balance c/d (opening) By fund from operation	1,04,000 30,000
	1,34,000		1,34,000

LET US SUM UP

The statement of changes in financial position explains the differences in various assets and liabilities items of the balance sheet between the beginning of the year and the end of the year. It converts the balance sheet into a flow statement. An increase in liability side means the organization has generated funds during the period. There are broadly three sources of funds - funds from operation, funds from other long-term sources like equity, loan, etc., and funds generated from working capital (e.g. increase in payables). There are broadly two uses of funds namely, funds required to buy assets and other long-term needs and funds required for current assets (purchase of inventory, funding receivables, etc.).

CHECK YOUR PROGRESS

11. Which one of the following is an example of sources of funds?

(A) Decrease in share capital (B) Increase in long-term liabilities
(C) Decrease in long-term liabilities (D) Increase in fixed assets

12. In a statement of cash flows, a company investing in short-term financial investments and in fixed assets results in

(A) increased cash (B) decreased cash
(C) increased liabilities (D) increased equity

13. A company who issues bonds or stocks in result raised funds which finally

(A)increases liabilities (B) increases equity

(C) increases cash (D) decreases cash

14. Which of the following is NOT a cash outflow for the firm?

(A) Depreciation (B) Dividend

(C) Taxes (D) Interest payments

15. According to the accounting profession, which of the following would be considered a cash-flow item from an "investing" activity?

(A) Cash inflow from interest income

(B) Cash inflow from dividend income

(C) Cash outflow to acquire fixed assets

(D) All the above

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Module-4
CASH FLOW STATEMENT

MEANING

Cash Flow Statement is a statement which describes the inflows (sources) and outflows (uses) of cash and cash equivalents in an enterprise during a specified period of time. A cash flow statement summarises the causes of changes in cash position of a business enterprise between dates of two balance sheets.

CLASSIFICATION OF CASH FLOWS

- Cash flows from operating activities
- Cash flows from investing activities
- Cash flows from financing activities

LIMITATIONS OF CASH FLOW STATEMENT

Despite a number of uses, cash flow statements suffer from the following limitations:

- As cash flow statement is based on cash basis of accounting, it ignores the basic accounting concept of accrual basis.
- Some people feel that as working capital is a wider concept of funds, a funds flow statement provides a more complete picture than cash flow statement.
- Cash flow statement is not suitable for judging the profitability of a firm as non-cash charges are ignored while calculating cash flows from operating activities.

THE BASIC INFORMATION REQUIRED FOR THE PREPARATION OF A CASH FLOW STATEMENT IS OBTAINED FROM THE FOLLOWING THREE SOURCES:

- Comparative balance sheets at two points of time, i.e. in the beginning and at the end of the accounting period.
- Income statement of the current accounting period or the profit and loss account.
- Some selected additional data to extract the hidden transactions.

THE PREPARATION OF A CASH FLOW STATEMENT INVOLVES THE FOLLOWING STEPS

Step 1. Compute the net increase or decrease in cash and cash equivalents by making a comparison of these accounts given in the comparative balance sheets.

Step 2. Calculate the net cash flow provided (used in) operating activities by analysing the profit and loss account, balance sheet and additional information. There are two methods of converting net income into net cash flows from operating activities: the direct method and the indirect method. These methods have been discussed separately in this chapter.

Step 3. Calculate the net cash flow from investing activities.

Step 4. Calculate the net cash flow from financing activities.

Step 5. Prepare a formal cash flow statement highlighting the net cash flow from (used in) operating, investing and financing activities separately.

Step 6. Make an aggregate of net cash flows from the three activities and ensure that the total net cash flow is equal to the net increase or decrease in cash and cash equivalents as calculated in Step 1.

Step 7. Report significant non-cash transactions that did not involve cash or cash equivalents in a separate schedule to the cash flow statement e.g., purchase of machinery against issue of share capital or redemption of debentures in exchange for share capital."

COMPARISON BETWEEN FUNDS FLOW STATEMENT AND CASH FLOW STATEMENT

(1) Funds flow statement is based on a wider concept of funds, i.e., working capital, while cash flow statement is based on the narrower concept of funds, i.e., cash (and cash equivalents) only, which is only one element of working capital, the other being debtors, stock, bills receivables, prepaid expenses etc.

(2) Funds flow statement is based on accrual basis of accounting while cash flow statement is based on cash basis of accounting. In cash flow statement while calculating cash flows from operating activities. adjustments for prepaid and outstanding expenses and incomes as well as changes in current assets (other than cash and cash equivalents) and liabilities are made to convert the data from accrual basis to cash basis; but no such adjustments are required to be made while preparing a funds flow statement.

(3) A funds flow statement does not reveal changes in current assets and current liabilities, rather these appear separately in a schedule of changes in working capital. No such schedule of changes in working capital is prepared for a cash flow statement and changes in all assets and liabilities fixed as well as current, are summarised in the cash flow statement.

(4) A cash flow statement is prepared by classifying all cash inflows and outflows in terms of operating, investing and financing activities. The net difference between

sources and applications of funds does not represent cash rather it reveals the net increase or decrease in working capital.

(5) Funds flow statement explains the reasons for change in working capital whereas cash flow statement explains the reasons for change in cash and cash equivalents.

(6) Funds flow statement is useful in planning intermediate and long-term financing while a cash flow statement is more useful for short-term analysis and cash planning of the business.

USES OF CASH FLOW STATEMENT

- It gives guidance to the management in taking and implementing short-term financial policies.
- It helps to strengthen the borrowing capacities of the firms. The financial institutions can easily assess the repaying capacities of the firms through the cash flow analysis.
- It contributes significant role for the capital budgeting decisions.
- It helps in short term financial decisions relating to liquidity.
- In order to find out the variation and take necessary remedial measures with the help of the comparison of actual cash flow statements with the projected cash flow statements.
- To overcome the problem of meeting deficit cash or investment of surplus cash with the help of the projected cash flow statement. Thus, projected cash flow statement is usually prepared on the basis of past years' experience.
- It explains the causes for poor cash position in spite of huge profits or surplus cash balance in spite of low profits.
- It explains the major sources and uses of cash for the business concern during a particular period of time.

STEPS IN PREPARATION OF CASH FLOW STATEMENT

Cash flow statement can be prepared on the same pattern on which fund flow statement is prepared. But, here statement of changes in working capital does not need to be prepared. Remaining all other procedures were same in fund flow statement.

Cash flow statement is prepared on any one of the following assumptions:

- When all transactions are taken as cash transactions.
- When all transactions are not cash transactions.

Here, we have to proceed with all the problems by treating all the transactions as cash transactions.

Steps

1. No need to prepare working capital statement
2. Preparation of cash flow statement
3. Preparation of profit & loss account-computation of cash from operation.
4. Preparation of separate ledger if necessary
5. Treatment of adjustments

1. No need to prepare the working capital statement

Changes in current assets and current liabilities are adjusted in the cash flow statement itself. So, separate statement is not necessary for the changes in working capital.

2. Cash Flow Statement (Proforma).

Inflow of cash	Amount	Outflow of cash	Amount
Opening Cash Balance (including bank balance)	XX	Redemption of preference shares	XX XX
Issue of Shares	XX	Repayment debenture holders	XX
Issue of Debentures	XX	Repayment of Loans	XX
Raising of loans	XX	Purchase of fixed assets	XX
Sale of fixed assets	XX	Dividend paid	XX
Dividends received	XX	Income Tax paid	
Share premium received	XX	Cash from operation (Lost in operation) Transfer from P&L A/c	XX
Cash from Operation (Transfer from P&L A/c)			
	XX	Closing balance (including bank balance)	**XX**

3. Preparation of Profit & Loss Account Computation of cash from operation Cash from operations can be found out in two methods. One is statement form another one is preparation of profit and loss account. Normally, cash from operation can be found out with the help of the preparation of profit and loss account because it is an easy and convenient method. Here, profit and loss account is prepared in usual procedure.

	Amount		Amount
To Goodwill written off	XX	By Opening Balance b/d	XX
To General reserve	XX	By Dividends received	XX
To Preliminary expenses written off	XX	By Interest on investments	XX
To Depreciation	XX	By Profit on sale of assets	XX
To Loss on sale of fixed assets	XX	By Cash from operation (Balancing figure)	XX
	XX		

To Loss on sale of Investments To Patents & Trade mark Written off To Income tax provided To Interim dividend paid To Closing balance c/d To Cash from operation (Balancing figure)	XX XX XX XX XX **XX**		 **XX**

4. Preparation of Separate Ledger

If information of any particular assets or liabilities are given in the adjustment, we have to prepare separate asset or liabilities account. Balances from this ledger can be transferred to cash flow statement.

5. Treatment of adjustments

The additional information which are given apart from the balance sheet are, simply called as adjustment. All the adjustments will appear in two places. The following are the important adjustments and their treatment.

(a) Dividend paid - Cash flow statement outflow side
- Profit & loss A/c Debit side

(b) Depreciation - P.L.A/c Debit side
Respective asset A/c credit side

(c) Loss on sale of assets - P.L.A/c Debit side
Respective asset A/c credit side P.L.A/c Debit side

(d) Income Tax provision - Income Tax Credit side.

NOTE: The adjustments applicable for fund flow statements will also be applicable for cash flow statements.

PROBLEM 1

Statement of financial position of Mr.Arun is given below.

Liabilities	01.01.2000 Rs	31.12.2000 Rs	Assets	01.01.2000 Rs	31.12.2000 Rs
Account payable	29,000	25,000	Cash	40,000	30,000
Capital	7,39,000	6,15,000	Debtors	20,000	17,000
			Stock	8,000	13,000
			Building	1,00,000	80,000
			Other fixed Assets	6,00,000	5,00,000
	7,68,000	**6,40,000**		**7,68,000**	**6,40,000**

The following additional information is also available:

a) There were no drawings
b) There were no purchases or sale of either building or other fixed assets. Prepare a statement of cash flow

Solution :

Cash Flow Statement

Inflow of cash	Amount	Outflow of cash	Amount
Opening Cash Balance	40,000	Decrease in accounts payable	4,000
Decrease in Debtors	3,000	Increase in stock	5,000
		Cash from operation (1)	4,000
		Closing cash balance	30,000
	43,000		**43,000**

Workings :

1. Profit and Loss Account

	Amount		Amount
To Depreciation on Building	20,000	By Capital Account (Loss)	1,24,000
	1,00,000		
To Depreciation on plant	4,000		
To Cash from operation (Loss on operation)			
	1,24,000		**1,24,000**

2. Capital Account of Mr. Arun

To Profit & Loss A/c (Loss)	1,24,000	By Balance b/d	7,39,000
To Balance c/d	6,15,000		
	7,39,000		**7,39,000**

3. Building Account

To Balance b/d	1,00,000	By Depreciation (P&L A/c)	20,000
		By Balance c/d	80,000
	1,00,000		**1,00,000**

4. Other Fixed Assets Account

To balance b/d	6,00,000	By Depreciation (P&L A/c) By Balance c/d	1,00,000 5,00,000 **6,00,000**
	6,00,000		

PROBLEM 2

Balance Sheets of M/s. Black and White as on 1st Jan. 2000 and 31st Dec. 2000 were as follows.

Liabilities	Jan.2000 ₹	Dec. 2000 ₹	Assets	Jan.2000 ₹	Dec. 2000 ₹
Creditors	40,000	44,000	Cash	10,000	7,000
White loan	25,000	-	Debtors	30,000	50,000
Loan from bank	40,000	50,000	Stock	35,000	25,000
Capital	1,25,000	1,53,000	Land	40,000	50,000
			Building	35,000	60,000
			Machinery	80,000	55,000
	2,30,000	**2,47,000**		**2,30,000**	**2,47,000**

During the year machine costing ₹ 10,000 (accumulated depreciation ₹ 3,000) was sold for ₹ 5,000. The provision for depreciation against machinery as on 1st Jan. 2000 was ₹25,000 and on 31st Dec. 2000 ₹40,000. Net profit for the year 2000 amounted to ₹45,000. Prepare cash flow statement.

Solution :

Cash Flow Statement

Inflow of cash	Amount ₹	Outflow of cash	Amount ₹
Opening cash balance	10,000	Increase in Debtors	20,000
Decrease in stock	10,000	Purchase of Land	10,000
Increase in creditors	4,000	Purchase of Buildings	25,000
L an from bank	10,000	Repayment of Mr. White's Loan	25,000
Sale of Machinery	5,000	Capital Account (3) (Drawings)	17,000
Cash from operation (1)	65,000	Closing Cash Balance	7,000
	1,04,000		**1,04,000**

Workings:

Profit and Loss Account

	Amount ₹		Amount ₹
To Loss on sale of Machinery	2,000	By balance b/d	Nil

To Depreciation (4)	18,000	By Cash from operations	65,000
To balance c/d	45,000		
	65,000		65,000

Machinery Account

	Amount		Amount
To balance b/d (80,000+25,0 0)	1,05,000	By Cash	5,000
		By P&L A/c	2,000
		By Accumulated Depreciation	3,000
		By balance c/d (55,000+40,000)	95,000
	1,05,000		1,05,000

Capital Account

	Amount ₹		Amount ₹
To cash	17,000	By balance b/d	1,25,000
To balance c/d	1,53,000	By P&L A/c	45,000
	1,70,000		1,70,000

Accumulated Depreciation Account

	Amount ₹		Amount ₹
To Machinery A/c	3,000	By balance b/d	25,000
To balance c/d	40,000	By P&L A/c	18,000
	43,000		40,000

Journal for 1st Adjustment:

Cash A/c	Dr.	5,000	(Sale of Machinery)
Accumulated Depreciation A/c	Dr.	3,000	(Depreciation)
P&L A/c	Dr.	2,000	(Loss on sale of Machinery)
To Machinery A/c		10,000 `	

PROBLEM 3

The balance sheet of Super Computers Ltd., as on 31.12.1992 and 31.12.1993 respectively are given below.

Liabilities	1992 Rs.	1993 Rs.	Assets	1992 Rs.	1993 Rs.
Share capital Retained earnings Accumulated Depreciation 6% Debebtures Sundry Creditors	1,00,000 70,250 60,000 50,000 28,000	1,60,000 85,300 40,000 - 48,000	Fixed assets at any cost Inventory Sundry Debtors Prepaid expenses Bank	1,52,000 93,400 30,800 3,950 28,100	2,00,000 89,200 21,100 3,000 20,000
	3,08,250	3,33,300		3,08,250	3,33,300

The following additional information for the year 1993 is also available.

(i) Net Profit Rs. 27,050
(ii) Depreciation charged Rs.10,000
(iii) Cash dividend declared during the period Rs.12,000
(iv) An addition to the building was made during the year at a cost of Rs. 78,000 And fully depreciated equipment costing Rs.30,000 was discarded, no salvage value being realized. Prepare a cash flow statement.

Cash Flow Statement

Inflow of cash	Amount Rs.	Outflow of cash	Amount Rs.
Opening cash balance Decrease in inventory Decrease in Debtors Decrease in prepaid expenses Issue of shares Cash from operation Increase in creditors	28,100 4,200 9,700 950 60,000 37,050 20,000	Redemption of debentures Cash dividend paid Purchase of building Closing cash balance	50,000 12,000 78,000 20,000
	1,60,000		1,60,000

Workings – 1 **Profit and Loss Account**

	Amount Rs.		Amount Rs.
To cash dividend To Depreciation (current Year) To balance c/d	12,000 10,000 85,300	By balance b/d By cash from operation (b/f)	70,250 37,050
	1,07,300		1,07,300

2. Accumulated depreciation account

To Fixed Assets (Discarded Equipment) To balance c/d	30,000 40,000	By balance b/d By P&L A/c	60,000 10,000
	70,000		70,000

3.Fixed Assets Account

By balance b/d To cash (purchased)	1,52,000 78,000	By Depreciation To balance c/d	30,000 2,00,000
	2,30,000		2,30,000

LET'S SUMUP

A cash flow statement tells you how much cash is entering and leaving your business in a given period. Along with balance sheets and income statements, it's one of the three most important financial statements for managing your small business accounting and making sure you have enough cash to keep operating.

CHECK YOUR PROGRESS

16. For a profitable firm, total sources of funds will always ____ total uses of funds

(A) Be Equal to (B) be Less than

(C) be Greater than (D) Have no consistent relationship to

17. Uses of funds include a (an):

(A) Decrease in cash (B) Increased in fixed assets

(C) Increase in any liability (D) Tax refund

18. Depreciation is added back to profit when arriving at the cash flow from operating activities because?

(A) Depreciation is only an estimated amount

(B) Depreciation does not affect profit

(C) Depreciation only affects the balance sheet, not the profit and loss account

(D) None of Above

19. A company purchased the land in exchange for the capital stock; it would affect which of the following?

(A) Cash flow from operating activities

(B) Cash flow from financial activities

(C) Cash flow from investing activities

(D) It would not affect any section

20. When equipment is sold for cash, the amount received is reflected as cash?

(A) Inflow in the operating section

(B) Inflow in the financing section

(C) Inflow in the investing section

(D) Outflow in the operating section

UNIT ACTIVITIES:

Short Answers:

FINANCIAL STATEMENT ANALYSIS

1.What is meant by Financial Statements ?

2.Define Financial Statements ?

3.What is Financial Analysis ?

4.Write note on Comparative Statement ?

5.What is Meant by Common Size Balance Sheets ?

6.What is Trend Analysis ?

RATIO ANALYSIS

1.What is meant by Ratio Analysis ?

2.Listout the Liquidity Ratios ?

3.What are the limitations of Ratio Analysis ?

4. How can the solvency position of business be measured?

5. Explain the meaning of interpretation of ratios?

FUND FLOW STATEMENT

1. Define fund flow statement.
2. When does flow of funds take place?
3. What is meant by current assets and current liabilities?

CASH FLOW STATEMENT

1. What do you meant by cash flow statement?
2. What are the uses of preparing cash flow statement?
3. How will you compute cash from operation?
4. List out the limitations of cash flow statement.
5. What are the sources of cash inflow?
6. How does cash flow statement differ from fund flow statement?

Essay Type Answers :

FINANCIAL STATEMENT ANALYSIS

1. Briefly explain the objectives of Financial Statements?
2. Explain the importance financial statement in the current business world?
3. Briefly explain the procedure for analysis and interpretation of financial statements s?
4.”Analysis without interpretation is Meaningless and interpretation without analysis is impossible”. Discuss.
5. What are the different methods used for the analysis and interpretation of financial statements?

RATIO ANALYSIS

1. “Ratio analysis is tool to examine the health of a business with a view to make the finance results more intelligible”
2. “Accounting ratios are mere guides and complete relevance on them in decision making is suicidal”-Elucidate.
3. Discuss some of the important ratios usually worked from financial statements showing how they would be useful to higher management?
4. Enumerate the applications and limitations of ratio analysis.
5. State the significance of accounting ratios in the analysis of financial statements.
6. Describe the limitations of ratio analysis.
7. Briefly explain the objectives of financial statement analysis.

FUND FLOW STATEMENT

1. Explain the meaning of non-current liability and non-current assets.
2. Describe the various steps involved in preparation of fund flow statement.
3. Explain the advantages and limitations of fund flow statement.
4. Explain the managerial uses of fund flow statement.
5. Explain the meaning importance and objectives of fund flow statement.
6. "A fund flow statement is a better substitute for an income statement". Discuss

CASH FLOW STATEMENT

1. Briefly explain the procedure for preparing cash flow statement.
2. How will you prepare the cash flow statement?
3. What is the purpose of preparing cash flow statement ?
4. What are the differences between cash flow and fund flow statement?
5. Explain the advantages of cash flow statement.

6. What are the limitations of cash flow statement?

ANSWERS FOR CHECK YOUR PROGRESS

1	2	3	4	5	6	7	8	9	10
C	D	D	A	D	A	D	C	B	C
11	12	13	14	15	16	17	18	19	20
B	B	C	A	C	A	B	A	D	C

Financial Statement Analysis	Financial analysis is the process of identifying the financial strengths and weaknesses of the organisation by establishing the balance sheet and the profit and loss account.
Meaning and concept of Financial Analysis	In this topic financial analysis, also known as analysis and interpretation of financial statements refers to the process of determining financial position of firm.
Definition	The term analysis is used to mean the simplification of financial data by classification of the data given in the financial statement's analysis.
External Analysis	• It is made by those who do not have access to • the detailed records of the company. One has to depend on published financial statements.
Internal Analysis	The internal analysis is accomplished by those who have access to the books of accounts and other information's related to business.

According to modus operandi of analysis	- Horizontal Analysis - Vertical Analysis
Horizontal Analysis	- As it is based on data from year to year rather than on one date or period of time as a whole, this is also known as "Dynamic Analysis".
Vertical Analysis	- It is frequently used for referring to ratios - developed for one date or for one accounting period. Vertical analysis is also called 'static analysis'.
Ratio Analysis	- A ratio is a simple arithmetical expression of the relationship of one number to another.
Meaning of Ratio	- In simple language ratio is one number expressed in terms of another and can be worked out by dividing one number into the other.
Nature of Ratio Analysis	- Selection of relevant data from the financial statements depending upon the objective of the analysis.
Interpretation of the Ratios	- Single Absolute Ratio - Group of Ratios - Historical Comparison - Projected Ratios
Fund Flow Statement	- The purpose of the statement is to indicate clearly the requirement of funds and how they are proposed to be raised and the efficient utilisation and application of the same.

********UNIT II COMPLETED*********

UNIT III

MARIGINAL COST

MARGINAL COSTING:

Marginal Costing – Definition – Distinction Between Marginal Costing and Absorption costing – Breakeven point Analysis – Contribution, P/V Ratio, Margin of safety – Decision making under Marginal Costing System – Key Factor Analysis – Make or Buy decisions, Export decision, Sales mix decision – Problems.

UNIT MODULE STRUCTURING

1. Marginal Costing
2. Application of Marginal Costing
3. Cost Volume Profit Analysis
4. Decision making
5. Problems

UNIT OBJECTIVES

- To apply the Break-Even Analysis with Business problems
- To Learn Decision making under Various situations
- To develop the idea for the P/V Ratio analysis with appropriate financial tools
- To understand the need and importance of Break-Even Analysis and techniques for preparation
- To enhance the knowledge on Application of decision in real business situations

1.1 CONCEPT OF MARGINAL COST

Marginal cost is a well-known concept of economic theory. Marginal cost is the cost which arises from the production of additional increments of output and it does not arise in case the additional increments are not produced. It has been defined by the Institute of Cost and Works Accountants, London as 'the amount at any given volume of output by which aggregate costs are changed if the volume of output is increased or decreased by one unit'."

Marginal costing also known as direct costing or variable costing is a comparatively new area in the field of accounting. It is very useful in decision making. It is gradually gaining more and more importance in the management theory. It is a method of costing which is concerned with changes in cost resulting from changes in the volume of production and sale of any product. It deals mainly with future cost. It is very helpful to the management for making decisions on pricing, sales, budgeting, production planning and marketing etc. Hence it is a very important concept.

Variable costing or marginal costing is a principle whereby marginal costs of cost units are ascertained. Only variable costs are charged to cost units, the fixed costs attributable to the relevant period being written off in full against the contribution for the period. We use the term variable costing and direct costing interchangeably.

1.2 DEFINITION OF MARGINAL COSTING

The **Chartered Institute of Management Accountants**, England, defines the term marginal cost as "marginal cost is the amount at any given volume of output by which aggregate costs are changed if the volume of output is increased or decreased by one unit."

For the purpose of finding out the marginal cost we need the following components of costs.

- Direct material
- Direct labour
- Other direct expenses
- Total variable overheads

The Institute of Cost and Management Accountants London has defined "marginal costing as the ascertainment of marginal costs and of the effect on profit of changes in volume or type output by differentiating between fixed costs and variables cost".

"In this technique of costing only variable costs are charged to operation, processes or products, leaving all indirect costs to be written off against profits in the period in which they arise".

1.3 ADVANTAGES OF VARIABLE OR MARGINAL COSTING

- Cost volume profit relationship data wanted for profit planning purposes is readily obtained from the regular accounting statement. Hence management does not have to work with two separate sets of data to relate one to another.
- The profit for a period is not affected by changes in absorption of fixed expenses resulting from building or reducing inventory. Other things remaining equal e.g. selling prices, costs sales mix, profits move in the same direction as the sales when direct costing is in use.
- Manufacturing cost and income statements in the direct cost from follow managements thinking more closely than does the absorption cost form. For this reason, management finds it easier to understand and to use direct cost reports.

- The impact of fixed cost on profits is emphasised because the total amount of such cost for the period appears in the income statement.
- Marginal income figures facilitate relative appraisal of products, territories, classes of customers and other segments of the business without having the results obscured by allocation joint fixed costs.
- Direct costing lies in with such effective plans for cost control as standard costs and flexible budgets. In fact, the flexible budget, also aspect of direct costing and many companies thus use direct costing method for this purpose without recognising them as such.
- Direct cost constitutes a concept of inventory cost which corresponds closely with the current out of pocket expenditure necessary to manufacture the goods.
- In short, we can recapitulate the chief advantages of marginal costing - helpful in profit planning, evaluating profitability of alternative operations, important decision making, pricing policy, cost control and management reporting.

1.4 DISADVANTAGES OR LIMITATIONS OF MARGINAL COSTING

- Difficulty may be encountered in distinguishing the fixed cost. In particular certain semi-variable costs may fall in a harder line area and more or less arbitrary classification may be considered necessary in order to arrive at a practical determination of fixed and variable components.
- Complete manufacturing cost is not determined in the process of costing production and supplementary allocation of fixed overhead on normal or some other volume base must be made to provide product costs for long range pricing and other long-range policy decisions.
- Serious income tax problems may be encountered if a change is made from full cost to variable cost for costing inventory and definite rulings are not available for guidance.
- Some accountants question the acceptability of direct cost as a basis for costing inventory in financial statements prepared for stock-holders and the public at large. However, great interest in direct costing has arisen recently and opinion with respect to this question has not yet crystallised.
- Costs are fixed only in the short period - and this is forgotten by many a firm which then result in faulty decisions.
- Variable costing is a faulty basis for making decisions in normal times and normal circumstances.

1.5 ABSORPTION COSTING AND CONTRIBUTION

Absorption Costing:

- Absorption costing, in actual practice, is charging of all the costs both fixed and variable to the production, processes and treats all costs as product costs. In real sense, in absorption costing, fixed overhead can never be absorbed exactly because of difficulty in determining costs and volume of output.
- The Institute of Cost and Management Accountants (U.K) defines it as "the practice of charging all costs both variables and fixed to operations, processes or products". Absorption costing is otherwise called as total or full cost method.

Contribution:

- Contribution is the differences between sales and variable cost. It may be defined as the excess selling price over variable cost per unit, contribution is also known as contribution margin or gross margin. Contribution can be arrived by the following manner,

Sales - variable cost = contribution

Contribution = fixed cost + profit

1.6 DISTINCTION BETWEEN MARGINAL COSTING AND ABSORPTION COSTING

Basis for Comparison	Marginal Costing	Absorption Costing
Meaning	Marginal costing is a technique that assumes only variable costs as product costs.	Absorption costing is a technique that assumes both fixed costs and variable costs as product costs.
What it's all about?	Variable cost is considered as product cost, and fixed cost is assumed as a cost for the period.	Both fixed cost and variable costs are considered in product cost.
Nature of overheads	Fixed costs and variable costs	Overheads, in the case of absorption costing, are quite different – production, distribution, and selling & administration.

How is the profit calculated?	By using the profit volume ratio (P/V ratio)	Fixed costs are considered in product costs, that's why profit reduces.
Determines	The cost of the next unit;	The cost of each unit.
Opening & Closing stocks	Since the emphasis is on the next unit, change in opening/closing stocks doesn't affect the cost per unit.	Since the emphasis is on each unit, change in opening/closing stocks affects the cost per unit.
Most important aspect	Contribution per unit.	Net profit per unit.
Purpose	To show forth the emphasis of contribution to the product cost.	To show forth the accuracy and fair treatment of product cost.
How is it presented?	By outlining the total contribution;	Most conveniently for financial and tax reporting;

LET'S SUM-UP

Dear Learners, in this Module we learn about Marginal cost, concept of Marginal cost, Definition of Marginal costing, Advantages and Disadvantages of Marginal costing, absorption costing and Contribution and finally Distinction between Marginal costing and absorption costing.

GLOSSARY

Concept	The Institute of Cost and Management Accountants London has defined "marginal costing as the ascertainment of marginal costs and of the effect on profit of changes in volume or type output by differentiating between fixed costs and variables cost".
Definition	Marginal cost is a well-known concept of economic theory. Marginal cost is the cost which arises from the production of additional increments of output and it does not arise in case the additional increments are not produced.
Disadvantages	Costs are fixed only in the short period - and this is forgotten by many a firm which then result in faulty decisions.

	Variable costing is a faulty basis for making decisions in normal times and normal circumstances.
Absorption	Absorption costing, in actual practice, is charging of all the costs both fixed and variable to the production, processes and treats all costs as product costs.
Marginal Costing	Marginal costing is a technique that assumes only variable costs as product costs.
Absorption Costing	Absorption costing is a technique that assumes both fixed costs and variable costs as product costs.

CHECK YOUR PROGRESS

1. Which of the following statements are true about marginal costing?

a. In marginal costing, fixed costs are treated as product costs	b. Marginal costing is not an independent system of costing
c. The elements of cost in marginal costing are divided into fixed and variable components	d. Both b and c

2.The costing method where fixed factory overheads are added to inventory is called---

a. Activity-based costing	b. Absorption costing
c. Marginal costing	d. All of the above

3. Which of the following techniques of costing differentiates between fixed and variable costs?

a. Marginal costing	b. Standard costing
c. Absorption costing	d. None of the above

4. Under marginal costing, the stock is valued at ________.

a. Total Cost	b. Fixed Cost
c. Variable Cost	d. None of the above

5. While computing profit in marginal costing, ________.

a. The fixed cost gets added to the contribution	b. The total marginal cost gets deducted from total sales revenue
c. The total marginal cost gets added to total sales revenue	d. None of the above

MODULE – 2
APPLICATION OF MARGINAL COSTING

2.1 APPLICATION OF MARGINAL COSTING

- Thus, marginal costing analysis of immense value in decision making and tackling day-to-day problems confronting the management. The types of decisions that are facilitated through marginal costing and contribution are many and varied. They range from production mix decisions to capital expenditure decisions.
- Marginal costing technique may be applied with various aims and purposes. The important purposes are as follow,
  - Profit Planning
  - Profit Volume Ratio
  - Break Even point

Profit Planning:

- In order to determine the profit level of the firm in future period is absolutely important.
- Profit planning is therefore a part of operational planning. Marginal costing assists the management in the profit planning through computation of contribution ratio.
- In the real sense, profits are affected by various factors such as the marginal cost per unit, total fixed cost, selling price and volume of sales.
- Hence, the organisation can achieve its profit by modifying one or more of the above variables.

Profit Volume Ratio:

- The ratio of contribution to sales is the p/v ratio or profit volume ratio.
- It may be expressed in percentage. It is one of the effective tools for studying the profitability of business.

Break Even Point:

- BEP may be defined as that level or point of sales volume at which the total revenue is equal to total costs.
- Simply, it is a no-profit, no loss point.
- This is also a minimum point of production where total costs are recovered.
- If sales exceeds the Break Even Point, organisation earns a profit.
- If sales are below the Break Even Point, the organisation incurs a loss. In other words, this is a point at which loss ceases and profit starts.

[Talk about the BEP in single word; it is the point, where income is exactly equal to expenditure.]

Break	**Even**	**Point**
↓	↓	↓
Divide	**Equally**	**place or position**

2.2 BREAK EVEN POINT

- Margin of safety
- Level of activity planning
- Fixation of selling price
- Decision to make or buy
- Introduction of a new product
- Evaluation of performance
- Decision making
- Maintaining a desired level of profit
- Alternative methods of production
- Decision to accept bulk order or foreign order.

Margin of Safety:

- Margin of safety may be defined as the excess of actual sales or production at the selected activity over Break even sales or production. Simply, margin of sales is excess sales over the breakeven sales. It is abbreviated as Margin of safety.

Level of Activity Planning:

- A common problem facing an enterprise is regarding the level of activity for it should have plans in hand.
- The plans may envisage an expansion or contraction of productive activities depending upon the conditions in the market.
- Management would like to have an idea of the contribution at different levels of activities and marginal costing proves very useful in this direction.
- It's different levels of production or selling activities are being considered and the management has to decide the optimum level of activity, the technique of marginal costing helps the management.
- The management must calculate contribution per unit at the different levels of activity and where this figure is maximum, it will be the optimum level of activity.

- Maintaining Desired Level of Profits - Managements may be interested in maintaining a desired level of profit. The volume of sales needed to have a desired level of profits can be ascertained by the marginal costing technique. As per formulae:

$$\textbf{Desired Sales} = \frac{\textbf{Fixed Cost + Desired Profit}}{\textbf{P/V Ratio}}$$

Fixation of Selling Prices

- The fixation of selling prices is one of the important functions of management.
- The technique of marginal costing can be applied to the pricing of products.
- The theory is that only those products should be produced or sold which make the largest contribution towards the recovery of fixed costs.
- The selling price fixation is also done under different circumstances, e.g.
  - Under Normal Circumstances
  - Pricing in Depression
  - Accepting a special order from a New Market.

Decision to make or buy

- Some time, a firm may buy certain products or parts or tools from outside, which may be made by the firm itself. The management must decide which one is most profitable to the firm.
- If the marginal cost of the product is lower than the price of buying from outside sources, it is better for the firm to manufacture the product by itself.

Introduction of new product

- Existing firm may add additional products in 11 products line without any difficulty, with the help of its available production capacity. The new product is sold in the market at a reasonable price with large quantities. If it is a reputed company, the sales may increase. So, total cost would come down and automatically profit will be increased.

Evaluation of performance

- With the help of the marginal costing, the management can measure the operational efficiency of all the departments or sales division Those departments or divisions which have a highest p/v ratio indicate the highest performance efficiency.

Decision making

- In normal practice, price must not be less than total cost. So, marginal costing acts as a price fixer and contributes profit. But this principle cannot be successful at all times If in any situation price is equal to marginal cost, there will be a loss. Sometimes, the firm has to face a loss when (i) competitors cannot be driven out (ii) there is cut-throat competition and so on. Marginal costing guides the management to take correct decisions whenever faced with this type of situations.

Maintaining a desired level of profit

- Sometimes, an industry has to reduce its price due to competition and government regulation. But the ultimate aim of the management is to maintain the same level of profit. For this purpose, marginal costing technique can assist the management to determine how many units have to be sold to maintain the same level of profit.

Alternative methods of production

- Management has to select a method of production among so many alternatives Marginal cost gives the marginal contribution under each of the proposed methods which are worked out and the method which gives the maximum contribution is normally adopted. And also, with the help of the marginal costing, the management should compare the alternative method of manufacture: either machine work or hand work and one machine or more machines.

Decision to accept bulk order or foreign order

- Sometimes, organisation has to receive both bulk order and foreign order for supplying the goods A decision has to be taken now whether to accept both orders or reject them. In this respect, marginal costing technique gives the correct direction to the management for accepting or rejecting the order.

2.3 COMPUTATION OF BEP

First Step:

1. Problem given in values:

$$BEP = \frac{\text{Fixed Cost}}{\text{Sales - Variable Cost}}$$

2. Problem given in unit:

$$BEP = \frac{\text{Fixed Cost}}{\text{Selling price per unit - Variable Cost per unit}}$$

3. Problem given in values:

$$BEP = \frac{\text{Fixed Cost}}{\text{P/V Ratio}}$$

$$\textbf{Computation of P/V Ratio} = \frac{\textbf{Contribution}}{\textbf{Sales}} \times 100$$

Contribution = Sales – Variable Cost

Second Type

Only two periods' details are given in the problem, we have to find the following,

- P/V ratio
- BEP
- Fixed Cost
- Find the Profit with the help of given sales
- Find the sales with the help of given profit
- MOS
- Variable cost

i) P/V Ratio:

$$\text{P/V Ratio} = \frac{\text{Difference of Profit}}{\text{Difference of Sales}} \times 100$$

ii) BEP:

$$\text{BEP} = \frac{\text{Fixed Cost}}{\text{P/V Ratio}}$$

iii) Fixed Cost:

Given Sales x P/V =	Contribution	xxx	[FC + Profit]
	Less : Profit	xxx	
	Fixed Cost =	xxx	
		===	

iv) Find the profit with the help of given sales:

Given Sales x P/V =	Contribution	xxx
	Less : Profit	xxx
	Profit	xxx
		===

v) Find the sales with the help of given profit:

$$= \frac{\text{Fixed Cost + Desired Profit}}{\text{P/V Ratio}}$$

vi) Margin of Safety

i) Margin of Safety = Actual Sales – BEP Sales

(or)

ii) If desired profit given in the problem:

$$= \frac{\text{Desired Profit}}{\text{P/V Ratio}}$$

(or)

iii) Margin of safety in units:

$$= \frac{\text{Profit}}{\text{Contribution per unit}}$$

vii) Variable Cost

Sales	xx
Less: Value of P/V ratio	xx
Variable cost	xx
	===

Example:

Sales 100%	50000
Less: Value of P/V ratio(50000 x $\frac{40}{100}$)	20000
Variable cost	30000

Sales – P/V Ratio = Variable cost

viii) Sales in units required to maintain the present level of profit:

$$= \frac{\text{Total Contribution required}}{\text{New Contribution per unit}}$$

Marginal Cost Equation:

Sales	xx
Less : Variable Cost	xx
Contribution	xx
Less : Fixed Cost	xx
Profit	xx

****

LET'S SUM-UP

Dear Learners, in this Module we learn about Application of Marginal Costing, in the sense we discussed deeply with the points of Profit Planning, Profit Volume Ratio, Break Even Point. finally, we discussed about Computation of Break-even Point.

GLOSSARY

Application of Marginal Costing	Marginal costing technique may be applied with various aims and purposes. The important purposes are as follow, ❖ Profit Planning ❖ Profit Volume Ratio ❖ Break Even Point
Break Even Point	Margin of safety Level of activity planning Fixation of selling price

CHECK YOUR PROGRESS

1. Contribution margin in marginal costing is also known as _________.			
a) Net income	b) Gross profit	c) Marginal income	d) None of the above
2. The term 'Contribution' refers to the ___________.			
a) Excess of selling price over variable cost per unit	b) Difference between the selling price and total cost	c) Subscription towards raising capital	d) None of the above
3. Which of the following techniques of costing differentiates between fixed and variable costs?			
a) Marginal costing	b) Standard costing	c) Absorption costing	d) None of the above
4. Fixed cost is also referred to as ________ in the marginal costing technique.			
a) Total cost	b) Product cost	c) Period cost	d) None of the above
5. Variable cost is also referred to as ________ in the marginal costing technique.			
a) Total cost	b) Product cost	c) Period cost	d) None of the above

******** MODULE II COMPLETED ********

MODULE – 3
COST VOLUME PROFIT ANALYSIS

3.1 COST VOLUME PROFIT ANALYSIS

- Cost volume profit analysis is one of the analytical tools used for studying the relationship between volume, cost, prices and profits. In cost volume profit analysis, an attempt is made to measure variations of costs and profits and volume. In the words of Heizer, "The most significant single factor in profit planning of the average business is the relationship between the volume of business costs and profits".
- From time to time the management is very much interested to know and evaluate the profitability of the product or product mix. And also, to analyse the effect of change in the volume of output, will have on the cost of production and profits. To understand the cost volume profit relationship in a detailed manner, we have to study the following:
    - Break-even analysis
    - Marginal cost formula
    - Profit volume ratio
    - Profit graph
    - Key factor

Marginal Cost Formula:

Sales	XX
Less: Variable Cost	XX
Contribution	XX
Less: Fixed Cost	XX
Profit	XX

3.2 BREAK EVEN POINT ANALYSIS

- It is a tool for analysing the financial aspect whereby the impact on profit, of the changes in volume, price costs and sales mix can be estimated with higher level accuracy.

A) Profit Volume Ratio

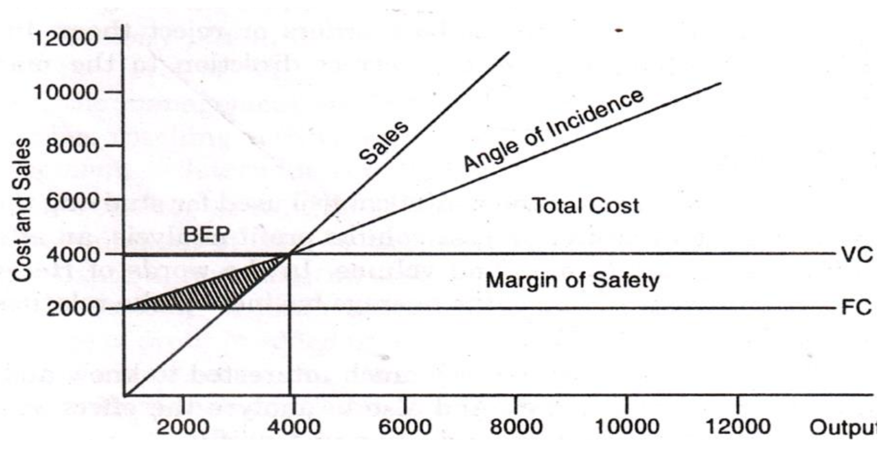
- It is an important tool in decision making. It is used for the calculation of BEP and in problems regarding profit and sales relationship. A higher P/V ratio indicates the greater profitability and vice versa. So, the organisation makes necessary effort to obtain higher P/ V ratio.

B) Margin of Safety

- Margin of safety may be defined as the excess of actual sales or production at the selected activity over Break even sales or production. Simply, margin of sales is excess sales over the breakeven sales. It is abbreviated as M.O.S.

C) Break Even Chart

- Breakeven point should be computed with the help of the graphical representation of applying mathematical formula. Graphical representation of break-even point is known as break even chart. Dr. Vance is of the opinion that "It is a graph showing the amounts of fixed variable costs and the sales revenue at different volumes of operation. It shows at what volume the firm first covers all costs with revenue of break-even."
- From the following data, draw break even chart. Fixed cost Rs.8000, variable cost Rs.4.00 percentage, selling price per unit Rs.6.00. Units produced and sold 4,000, 6,000, 8,000 and 12,000.



Source: Accounting for Manager Book (Page No: 340)

D) Angle of Incidence

- Angle of incidence indicates the profit earning capacity. The angle is formed at the break-even point where the sales line cuts the total cost line. The angle may be large or small. Large angle of incidence indicates higher profit rate and vice versa.

3.3 ASSUMPTIONS OF BREAK-EVEN ANALYSIS

- All costs are segregated into fixed and variable cost.
- Total fixed costs are constant at all levels of output.
- Production and sales figures are same.
- Variable costs vary proportionately with the level of volume of output.
- Selling price per unit and operational efficiency remains unchanged.

- Production and sales are same.
- Volume of sales and volume of production are equal hence there is no unsold stock.
- There is only one product.
- If there are multiple products, sales mix remains constant.
- There will be no change in the general price level.

3.4 ADVANTAGES OF BREAK-EVEN ANALYSIS AND CHART

- Enables to provide more detailed information and easily understandable than those of profit & loss account and balance sheet information.
- To determine the total cost, fixed cost and variable cost
- Product planning.
- Inter-firm comparison is possible.
- To select the best product mix.
- Choosing the best promotion mix
- To take the make or buy decisions.
- Preparation of flexible budget.
- Formulation of price policy.
- It provides guidance for cost control.
- To find out the profitability of different levels of activity and various products.
- Total profit could be calculated accurately.

LET'S SUM-UP

- Dear Learners, in this Module we learn about Cost Volume Profit Analysis, in the detailed explanation of Break-even analysis, Marginal cost formula, Profit volume ratio and finally we Learned about advantages, assumptions and limitations Break-even Point.

GLOSSARY

Cost volume profit analysis	Cost volume profit analysis is one of the analytical tools used for studying the relationship between volume, cost, prices and profits. ❖ Break-even analysis ❖ Marginal cost formula ❖ Profit volume ratio

Break Even Point Analysis	Breakeven point should be computed with the help of the graphical representation of applying mathematical formula.
Assumptions of Break-Even Analysis	All costs are segregated into fixed and variable cost. Total fixed costs are constant at all levels of output. Production and sales figures are same.
Advantages of Break-Even Analysis and Chart	Enables to provide more detailed information and easily understandable than those of profit & loss account and balance sheet information. To determine the total cost, fixed cost and variable cost Product planning

CHECK YOUR PROGRESS

1. What is the basic premise of cost concept?

a) Cost ascertainment	b) Tax compliance	c) Financial audit	d) Profit analysis

2. For which kind of firm is process costing appropriate?

a) Bricklaying firms	b) Transport firms	c)Hospitals	d) Oil refining firms

3. In how many ways can cost classification be done?

a) Three ways	b) Two ways	c) Four ways	d) Many ways

4. Which cost is incurred even if the company is closed?

a) Sunk cost	b) Historical cost	c) Shut-down cost	d) Imputed cost

5. What are direct expenses also known as?

a) Overhead expenses	b) Sundry expenses	c) Chargeable expense	d) Major expense

******** MODULE III COMPLETED ********

MODULE – 4
(DECISION MAKING)

4.1 DECISION MAKING

- Decision making is the process of selecting a best activity among the various alternatives. But if there are no alternative, there are no decisions. Specifically, we speak decisions always focuses on future prosection and predictions. The ultimate object if decision maker is to select best course of action for the forthcoming year.

4.2 COSTS ASSOCIATE WITH DECISION MAKING

Certain cost is associated with the decision-making process of the organization.

- Marginal costs
- Differential costs
- Sunk costs
- Opportunity costs
- Out of pocket cost
- Replacement costs
- Imputed costs
- Relevant costs and irrelevant costs

4.3 AREAS OF DECISION MAKING

- Pricing decision
- Make or buy decisions
- Problems of key factor or limiting factor
- Sales mix decisions
- Determination of optimum level of activity
- Evaluation of performance
- Capital investment decision
- Adding or dropping product live decisions
- Profit planning and maintaining a desired level of profit

Thus, marginal costing analysis of immense value in decision making and tackling day-to-day problems confronting the management. The types of decisions that are facilitated through marginal costing and contribution are many and varied. They range from production mix decisions to capital expenditure decisions.

4.3.1 Pricing decision:

Pricing is a process to determine what manufactures receive in exchange of the product. Pricing depends on various factors like manufacturing cost, raw material cost, profit margin etc. The main objectives of pricing can be learnt from the following points,

- Maximization of profit in short run
- Optimization of profit in the long run
- Maximum return on investment
- Decreasing sales turnover
- Fulfil sales target value

4.3.2 Make or Buy Decisions:

Most firms have to decide sometime or the other, whether they should buy a part from the market and stop making it themselves or whether they should stop buying it and start making it themselves. There are various considerations affecting such a decision, chief of which is of course cost.

As in any other case, the decision will mostly turn in case, the part is already being made and the decision is whether or not to buy it from outside, on the comparison of the price that has to be paid and the saving that can be affected in cost. This, as can be realised is only the marginal cost or the variable cost - normally no saving is possible in fixed expenses.

4.3.3 key factor or limiting factor

A key resource that may be in short supply include a particular raw material, type of labour or machine capacity. The key resource in short supply becomes the limiting factor, i,e it means that the business is unable to produce sufficiently to satisfy sales demand.

4.3.4 Sales Mix Decisions:

Usually business enterprises have a variety of product lines, each making its own contribution to fixed expenses. Changes in the operating profit can result from shifts in the mixture of products sold in spite of the fact that sale prices are unchanged and the total volume of sales expressed in terms of money remains the same.

Such a situation may also be brought about by changes in distribution channels or sales to different classes of customers if such an arrangement affects the quantum of contribution over variable costs It is in this context that marginal costing is called upon to inform management regarding the most profitable mix of sales from the entire range of selected alternatives.

4.3.5 Determination of optimum level of activity:

In the optimum level of activity, the company will do the maximum activities and the marginal cost of doing the activity will become equals to the marginal benefits which are received by the firms from the activity which are performed by it.

4.3.6 Evaluation of performance

Performance Evaluation is defined as a formal and productive procedure to measure an employee's work and results based on their job responsibilities.

4.3.7Capital investment decisions

Capital investment decisions are those decisions that involve current outlays in return for a stream of benefits in future years. It is true to say that all of the firm's expenditures are made in expectation of realizing future benefits.

4.3.8 Adding or dropping product live decisions:

In deciding whether to add a new product line or drop an existing one, the management must consider relevant benefits and costs. And as a rule, product lines or business segments should be evaluated based on traceable revenues and costs.

4.3.9 Profit planning and maintaining a desired level of profit

Profit planning refers to setting up a profitability goal for a particular budgeting period and the steps undertaken by a business to achieve it. It is an essential process of running a company, as businesses are all about profits, and firms follow many measures to attain desired profitability levels.

LET'S SUM-UP:

Dear Learners, in this Module we learn Decision making, Costs Associate with Decision Making and Areas of Decision Making. In the detailed explanation of Pricing decision, Make or buy decisions, Problems of key factor or limiting factor, Sales mix decisions, Determination of optimum level of activity, Evaluation of performance, Capital investment decision, Adding or dropping product live decisions, Profit planning and maintaining a desired level of profit.

GLOSSARY

Decision making	Decision making is the process of selecting a best activity among the various alternatives.

	- The ultimate object if decision maker is to select best course of action for the forthcoming year.
Costs Associate with Decision Making	- Certain cost is associated with the decision-making process of the organization. ❖ Marginal costs ❖ Differential costs ❖ Sunk costs
Areas of Decision Making	- Pricing decision - Make or buy decisions - Problems of key factor or limiting factor

CHECK YOUR PROGRESS

1. Decision making helps in the smooth function of the___________.

a) Business.	b) Staffing.	c) Organization.	d) Planning.

2. The transmission of thoughts from person to another is_____________.

a) Communication.	b) Controlling.	c) Consultative.	d) Organizing.

3. The study relating to the movement of a machine operator and his machine while performing the job is called__________.

a) Time study.	b) Work study.	c) Motion study	d) Fatigue study

4.Selecting a best course of action among the alternatives is called as_________.

a) Decision making	b) Planning.	c) Organizing.	d) Controlling.

5.The decisions which are frequent and repetitive in nature are called as____

a) Non-programmed decisions.	b) Programmed decisions.	c) Major decisions.	d) Operative decisions

******** MODULE IV COMPLETED ********

MODULE – 5 (PROBLEMS)

Problem:1

From the following data calculate break-even point expressed in terms of units and also the new BEF if selling price is reduced by 10%.

Fixed Expenses	**Rs/-**
Depreciation	2,00,000
Salaries	2,00,000
Variable Expenses	
Materials	Rs. 6 per unit
Labour	Rs. 4 per unit
Selling Price	Rs. 20 per unit

Solution:

$$BEP = \frac{\text{Fixed cost}}{\text{Selling price per unit – Variable cost per unit}}$$

$$= \frac{4,00,000}{20-10}$$

= BEP in units = 40,000 Units

New break-even point if selling price is reduced by 10% Fixed cost.

Fixed cost	=	Rs. 4,00,000
Material	=	Rs. 6.00
Labour	=	Rs. 4.00
		Rs. 10.00

New Selling Price:

Selling Price	=	Rs. 20.00
Less: 10% Deduction	=	Rs. 2.00
		Rs. 18.00

$$BEP = \frac{4,00,000}{8} = 50,000 \text{ units}$$

BEP in units = 50,000 units

****

Problem:2

From the following particulars find out the BEP, what will be the selling price per unit if BEP is to be brought down to 9,000 units.

	Rs.
Variable cost per unit	Rs. 75
Fixed Expenses	Rs. 2,70,000
Selling price per unit	Rs. 100

Solution:

$$\text{BEP} = \frac{\text{Fixed cost}}{\text{Selling price per unit} - \text{Variable cost per unit}}$$

Fixed cost = Rs. 2,70,000

Selling Price = Rs. 100

Variable Cost = Rs. 75

$$= \frac{2,70,000}{100 - 75} = 10,800 \text{ Units}$$

BEP in units = 10,800 units

BEP in value = 10,800 units x Selling price

= i.e., 10,800 x 100

= Rs. 10,80,000

If BEP is brought down to 9,000 units

$$= \frac{\text{Fixed Cost (2,70,000)}}{\text{Contribution per unit (x)}}$$

Contribution per unit is treated as X

$$= \frac{2,70,000}{9,000} = 30$$

Therefore, New selling price is Rs. 105 i.e., (Rs.75+Rs.30=Rs.105)

****

Problem:3

From the following data you are required to calculate the break-even point and net sales value at this point.

Selling Price	Rs. 25
Direct Material cost per unit	Rs. 8
Direct labour cost per unit	Rs. 5
Fixed overhead	Rs. 24,000

Variable overheads @ 60% on Direct Labour

Trade discount 4%

If sales are 15% and 20% above the break-even volume determine the net profits.

Solution:

i)

$$BEP = \frac{\text{Fixed cost}}{\text{Selling price per unit – Variable cost per unit}}$$

$$= \frac{24{,}000}{24 - 16} = \frac{24{,}000}{8} =$$ **BEP in units = 3,000 units**

BEP in value = BEP units x Selling price

= 3000 x Rs.24

= Rs. 72,000

Workings:

a) Selling Price:

Selling price per unit	= Rs. 25.00	
Less: Trade discount 4%	= Rs. 1.00	$\left[25.00 \times \frac{4}{100}\right]$

Selling Price	= **Rs. 24.00**	
	=======	

b) Variable Cost:

Direct material cost per unit	= Rs. 8.00	
Direct Labour cost per unit	= Rs. 5.00	
Variable overhead 60% on Direct Labour	= Rs. 3.00	$\left[5 \times \frac{60}{100}\right]$

Variable cost	= **Rs. 16.00**	
	========	

ii) If sales are 15% above the break-even volume, find out the profit.

<u>Formula:</u>

Given Sales x P/V ratio	=	xx
Less: Fixed Cost	=	xx

Profit	=	xx

BEP Sales is	=	72,000
15% above the break-even sales	=	10,800

Increased sale volume	=	82,800

$$\text{Therefore, } 82{,}800 \times \frac{33.33}{100} = 27{,}597 \quad \text{i.e.,} \quad 27{,}600$$

Less : Fixed cost	=	24,000	24,000
		---------------	-------------
Profit	=	3,597	3,600
		========	========

NOTE: Find the P/V ratio

$$\text{P/V ratio} = \frac{\text{Contribution}}{\text{Sales}}$$

Contribution = Sales – Variable cost

= 24 – 16 = Rs. 8

$$= \frac{8}{24} \times 100$$

= 33.33%

iii) If sales are 20% above the break even, determine the profit.

Break even sales	=	Rs. 72,000
20% increase	=	Rs. 14,400

Increased sales volume	=	Rs. 86,400
		=========

$$86{,}800 \times \frac{33.33}{100} = 28{,}797 \quad \text{i.e.,} \quad 28{,}800$$

Less : Fixed cost	=	24,000

Profit	**=**	**4,800**
		======

****

Problem:4

(i) From the following details you are required to determine the break-even point.

Direct Labour	Rs. 100 per unit
Direct Material	Rs. 40 per unit
Variable overhead	100% of direct Labour
Fixed overheads	Rs. 60,000
Selling price	Rs. 400 per unit

(ii) In order to increase the efficiency in production, the concern installs improved machinery which results in fixed overhead of Rs. 20,000, but the variable overhead is reduced by 40%.

Solution:

(i) Computation of Break-even point

$$BEP = \frac{\text{Fixed Cost}}{\text{Selling price per unit – Variable cost per unit}}$$

Fixed Cost = Rs. 60,000

Variable Cost

Direct Material	= Rs. 40
Direct Labour	= Rs. 100
Variable overhead 100% On direct Labour	= Rs. 100
	Rs. 240

$$BEP = \frac{60,000}{400 - 240}$$

$$= \frac{60,000}{160}$$

BEP in units = 375 units

BEP in value = BEP Unit x Selling price

= 375 units x Rs. 400

= Rs. 1,50,000

ii) In order to increase the production : The New BEP

Fixed overhead = Rs. 60,000

(+) Additional = Rs. 20,000

Total fixed cost = Rs. 80,000

=========

Variable overhead is reduced by 40%

Variable Cost:

Direct Material = Rs. 40

Direct Labour = Rs. 100

Variable overhead $100 \times \frac{60}{100}$ = Rs. 60

Total variable cost = Rs. 200

==========

$$\text{Revised BEP} = \frac{\text{Fixed Cost}}{\text{Selling price per unit} - \text{Variable cost per unit}}$$

$$= \frac{80{,}000}{400-200}$$

BEP in units = 400 units

BEP in value = 400 x 400

= Rs. 1,60,000

****

Problem: 5

Assuming that the cost structure and selling prices remain the same in both the periods. Compute the following.

a) Profit volume Ratio.

b) BEP for sales

c) Profit when sales are Rs. 1,00,000

d) Sales required to earn a profit of Rs. 20,000

e) Safety margin in both the periods.

Periods	Sales Rs.	Profit Rs.
I	1,20,000	9,000
II	1,40,000	13,000

Solution:

(a) Profit Volume Ratio $= \dfrac{\text{Difference of Profit}}{\text{Difference of Sales}} \times 100$

$= \dfrac{13{,}000 - 9{,}000}{1{,}40{,}000 - 1{,}20{,}000} \times 100$

$= \dfrac{4{,}000}{20{,}000} \times 100$

P/V Ratio = 20%

(b) BEP for sales $= \dfrac{\text{Fixed Cost}}{\text{P/V Ratio}}$

$= \dfrac{15{,}000}{20/100}$

BEP Sales = Rs. 75,000

NOTE: Fixed Cost = Contribution – Profit

$= 1{,}20{,}000 \times \dfrac{20}{100} - 9{,}000$

$= 24{,}000 - 9{,}000$

$= 15{,}000$

therefore, Contribution = Given sales x P/V Ratio]

(c) Profit when sales are Rs. 1,00,000

Profit = Contribution – Fixed cost

$= 1{,}00{,}000 \times \dfrac{20}{100} - 15{,}000$

= 20,000 – 15,000

= 5,000

(d) Sales required to earn a profit of Rs, 20,000

$$= \frac{\text{Fixed Cost + Desired Profit}}{\text{P/V Ratio}}$$

$$= \frac{15{,}000 + 20{,}000}{20/100}$$

= Rs. 1,75,000

(e) Safety margin in both the periods

Actual Sales – BEP Sales = Margin of safety

(i) 1,20,000 - 75,000 = 45,000

(ii) 1,40,000 - 75,000 = 65,000

****

<u>Problem: 6</u>

Find out Profit from the following data:

Sales	Rs. 8,00,000
Marginal Cost	Rs. 6,00,000
Break-even sales	Rs. 6,00,000

Solution:

(i) $$\text{P/V Ratio} = \frac{\text{Contribution}}{\text{Sales}} \times 100$$

$$= \frac{2{,}00{,}000}{8{,}00{,}000} \times 100$$

= 25%

(ii) Fixed Expenses

$$\text{BED (60,00,000)} = \frac{\text{Fixed Expenses (X)}}{\text{P/V Ratio (25\%)}}$$

25

X = 6,00,000 x ------ - 1,50,000
100

Fixed Expenses = Rs. 1,50,000

(iii) Find out profit

Contribution = Rs. 2,00,000
Less : Fixed Expenses = Rs. 1,50,000

Profit = Rs. 50,000
===========

****

Problem:7

An analysis of Digital manufacturing Co. Ltd., submits the following information:

Cost Element	Variable Cost (% sales)	Fixed Cost (Rs)
Direct Material	32.8	_
Direct Labour	28.4	_
Factory overheads	12.6	1,89,900
Distribution overheads	4.1	58,000
General Administration overheads	1.1	66,700

Budgeted sales are Rs. 18,50,000. You are required to determine.

(a)The break-even sales volume.

(b)Profit at the budgeted sales value

(c)The profit if actual sales

(a) Drop by 10%

(b) Increase by 5% from budgeted sales.

Solution:

(a)Break Even Sales Volume

Fixed Cost
BEP = ---------------
P/V Ratio

3,15,000

21/100

BEP = Rs. 15,00,000

Workings:

(i) Fixed Cost

Factory overheads = Rs. 1,89,900

Distribution overheads = Rs. 58,400

General administration overheads = Rs. 66,700

Total Fixed cost = Rs. 3,15,000

==========

(ii) $$\textbf{P/V Ratio} = \frac{\textbf{Contribution}}{\textbf{Sales}} \times \textbf{100}$$

contribution = Sales – Variable cost

= 100 – 79

= 12%

(Here sales are assumed to be 100%)

(iii) Variable Cost.

Direct Material = 32.8% of sales

Direct Labour = 28.4% of sales

Factory overheads = 12.6% of sales

Distribution overheads = 4.1% of sales

General administration Overheads = 1.1% of sales

Total = 79.0%

======

(b) Profit at the budgeted sales volume of Rs. 18,50,000

Profit = Contribution – Fixed Cost

$$= 18,50,000 \times \frac{21}{100} - 3,15,000$$

= 3,88,500 – 3,15,000

= 73,500

NOTE: Contribution = Given Sales x P/V Ratio

(c) The profit, if actual sales

(i) Drop by 10%

Sales = Rs. 18,50,000

Less : 10% = RS. 1,58,000

Sales (at 10% Reduction) = Rs. 16,65,000

=============

Profit = Contribution – Fixed Cost

$$= 16{,}65{,}000 \times \frac{21}{100} - 3{,}15{,}000$$

= 3,49,650 – 3,15,000

= 34,650

(ii) Increase by 5% from budgeted sales

Sales = Rs. 18,50,000

+5% = Rs. 92,500

Sales at 5% increase = Rs. 19,42,500

=============

Profit = Contribution – Fixed Cost

$$= 19{,}42{,}500 \times \frac{21}{100} - 3{,}15{,}000$$

= 4,07,925 – 3,15,000

Profit = 92,925

****

Problem:8

A factory engaged in manufacturing buckets is working at 40% capacity and produces 10,000 buckets per annum. The present cost breaks up foe one bucket is as under

	Rs.
Materials	10
Labour cost	3.00
Overheads	5 (60% Fixed)

The Selling price is Rs.20 per bucket. 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 calculated the profit at 50% and 90% capacities and also calculated the breakeven point for the same capacity productions.

Solution:

Capacity Level Number of Units	50% 12,500		90% 22,500	
	Cost per unit (Rs.)	**Total cost (Rs.)**	**Cost per unit (Rs.)**	**Total cost (Rs.)**
Sales	19.40	2,42,500	19.00	4,27,500
Less: Variable cost				
Material	10.00	1,25,000	9.50	2,13,750
Labour (Wages)	3.00	37,500	3.00	67,500
Variable Overheads	2.00	25,000	2.00	45,000
Total Variable Costs	**15.00**	**1,87,500**	**14.50**	**3,26,500**
Contribution (Sales – VC)	4.40	55,000	4.50	1,01,250
Less: FC	2.40	30,000	1.33	30,000
Profit	**2.00**	**25,000**	**3.17**	**71,250**
BEP in units= $\frac{\text{FC}}{\text{Contribution per unit}}$		$\frac{30,000}{4.40}$		$\frac{30,000}{4.50}$
BEP in Value BEP in units x Selling price		**6818 units** 6818 units x Rs. 19.40		**6667 units** 6667 units x Rs. 19.00
		Rs.1,32,270		**Rs. 1,26,373**

Workings:

At 50%,

i) Selling Price:	Rs. 20.00
Less: 3%	.60
Selling Price at 50%	Rs. 19.40

=======

At 90%,

ii) Selling Price	Rs. 20.00
Less 5%	1.00
Selling Price at 90%	Rs. 19.00
	=======

At 90%,

iii) Material Cost	Rs. 10.00
Less 5%	0.50
Material Cost at 90%	Rs. 9.50
	=======

****

LET'S SUM-UP

Dear Learners, in this Module we learn About two types of BEP and Whole Breakeven point analysis problems and solutions. Also, we looked at what kind of formula's we used and how to find out the solution to the problem

CHECK YOUR PROGRESS

1. The margin of safety, which is the difference between actual sales and break-even point, can be improved by _________.

a) Lowering variable costs	b) Lowering fixed costs	c) Increasing sales volumes	d) All of the above

2.An increase in the variable cost ________.

a) Decreases the break-even point	b) Improves margin of safety	c) Improves the profit/volume ratio	d) All of the above

3.The profit/volume ratio in marginal costing can be improved by ________

a)Lowering fixed cost	b)Increasing the selling price	c)Increasing variable cost	d)None of the above

4.Under marginal costing, the stock is valued at ________.

a)Total Cost	b)Fixed Cost	c)Variable Cost	d)None of the above

5.The profit at which total revenue is equal to the total cost is known as

a) Margin of safety	b) Break-even point	c) Both a and b are incorrect	d) Both a and b are correct

******** MODULE V COMPLETED ********

UNIT SUMMARY

- Dear Learners, Marginal cost is a well-known concept of economic theory. Marginal cost is the cost which arises from the production of additional increments of output and it does not arise in case the additional increments are not produced.
- Absorption costing, in actual practice, is charging of all the costs both fixed and variable to the production, processes and treats all costs as product costs. In real sense, in absorption costing, fixed overhead can never be absorbed exactly because of difficulty in determining costs and volume of output.
- Marginal costing technique may be applied with various aims and purposes.
- Cost volume profit analysis is one of the analytical tools used for studying the relationship between volume, cost, prices and profits
- Decision making is the process of selecting a best activity among the various alternatives.

ANSWERS FOR CHECK YOUR PROGRESS:

Module -1

1. C	**2. D**	**3. B**	**4. B**	**5. D**

Module -2

1. C	**2. A**	**3. A**	**4. C**	**5. B**

Module -3

1. A	**2. D**	**3. D**	**4. C**	**5. C**

Module -4

1. A	**2. A**	**3. C**	**4. C**	**5. B**

Module -5

1. D	**2. D**	**3. B**	**4. C**	**5. B**

SELF-ASSESSMENT QUESTIONS

Short Answers.

1. Define Marginal Costing and Marginal Cost.
2. What is meant by Contribution.
3. What is meant by P/V ratio?
4. Draw Marginal Cost Equation.
5. What do you understand by the term cost volume profit analysis?
6. Explain Break Even Point Assumptions?

7. What is mean by Absorption Costing?
8. What do you understand by Breakeven Chart?
9. Explain the Managerial uses and limitations of Marginal Costing?
10. Distinction between Marginal Costing and Absorption Costing.

Essay Type Answers:

1. Give marginal cost equation
2. Define angle of incidence
3. What is meant by east volume profit analysis?
4. What is meant by Break-even point?
5. How is margin of safety calculated? Discuss.
6. The effect of Price reduction is always to reduce the P/v ratio, to raise break-even point and to the margin of safety Explain and illustrate by numerical examples
7. What do you understand by the term cost volume profit relationship? Why is this relationship important in business management?
8. "The technique of marginal costing can be valuable aid to Management". Discuss
9. What is meant by break-even analysis Discuss the assumptions and the limitations of this technique
10. What do you understand by contribution? How does it help the management to solving various problems?

EXCERCISES

Problem: 1

ABC & Co. has just been formed. The owners have a special process which will enable them to produce a unique product 2 the demand for which is uncertain. Their estimated costs are

	Rs.
Material per unit	2
Labour per unit	6
Variable manufacturing expenses per unit	3
Variable selling expenses per unit	1
Fixed manufacturing expenses	24,000
Fixed administration and selling expenses	72,000

a) If the selling price is 20 per unit how many units they have to sell to:

1. break even, 2. make a profit of 32,000

(b) If the demand for the product is 10,000 units what selling price must they charge in order

To:

1. break-even 2. make a profit of 24,000

Problem: 2

The following figures are extracted from the books of Vijay Irons Ltd. for the years 1989 and 1990 whose capacity is 10,000 irons pa

	Per Unit Rs.
Direct material	3.50
Direct Labour	0.50
Fixed overhead	2.00
Selling Price	8.00

Production in 1989 was 10,000 units and in 1990 also it was 10,000 units Sales was 8,000 units in 1989 and 12,000 units in 1990.

Prepare cost statement assuming that the company uses.

(a) absorption costing

(b) Marginal costing

Problem: 3

From the following information relating to Palani& Bros.Ltd., You are required to find out,

a) P/V ratio
b) Break-Even Point
c) Profit
d) Margin of Safety
e) Volume of Sales to earn profit of Rs. 6,000

	Rs.
Total Fixed costs	4,500
Total Variable cost	7,500
Total Sales	15,000

*********UNIT III COMPLETED*********

UNIT- IV

BUDGET AND BUDGETARY CONTROL

BUDGET AND BUDGETARY CONTROL

Budget, Budgeting, and Budgeting Control - Types of Budgets - Preparation of Flexible and fixed Budgets, master budget and Cash Budget - Problems - Zero Base Budgeting.

UNIT MODULE STRUCTURING

- Budget and Budgetary Control
- Types of Budget
- Preparation budgets
- Problems of fixed and Flexible Budget
- Problem of Cash Budget
- Zero Base Budget

UNIT OBJECTIVES

The aims of this unit to learn the student's ability to:

- To know about the meaning of budget and budgetary control.
- An overview of the functions, scope, advantages and disadvantages
- An indication and explanation of the importance of budgetary control in marketing as a key marketing control technique
- An introduction to the methods for preparing budgets
- To know about types of budgets and preparation of budgets and identical fixed and flexible budget and cash budget
- To understand about the zero-base budget.

INTRODUCTION OF BUDGET

Dear students, we learn about this unit about the budget and budgetary control Here we going to understand that there are two types of control, namely budgetary and financial. This unit focuses on budget and budgetary control and their types. All of business activities, budgeting is one of the most important, and therefore, requires detailed attention.

This unit looks at the concept of responsibility centres, and the advantages and disadvantages of budgetary control. It then goes on to look at the detail of budget construction and the use to which budgets can be put. Like all management tools, In the chapter highlights the need for detailed information, if the technique is to be used to, its completest advantage. Budgetary control is the most common, useful and widely used standard device of planning and control. Before defining the budgetary control let us first understand the meaning of a 'budget'.

1.1 MEANING OF BUDGET

A budget is a detailed plan of operations for some specific future period. It is an estimate prepared in advance of the period to which it applies. It acts as a business barometer as it is complete programme of activities of the business for the period covered.

According to Gordon and Shillinglaw budget may be defined as "a predetermined detailed plan of action developed and distributed as a guide to current operations and as a partial basis for the subsequent evaluation of performance".

The Chartered Institute of Management Accountants, London defines a budget as "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.

Thus, the following are the essentials of a budget:

(a) It is prepared in advance and is based on a future plan of actions.

(b) It relates to a future period and is based on objectives to be attained.

(c) It is a statement expressed in monetary and/or physical units prepared for the implementation of policy formulated by the management.

1.2 DEFINITION OF BUDGET AND BUDGETARY CONTROL

1.2.1 Definition Budget

According to George R.Tesry, ‘’Budget is an estimate of future needs arranged according to an orderly basis, covering some or all of the activities of an enterprise for definite period of time’’.

1.2.2 Definition Budgetary Control:

‘’Budgetary control is a system of controlling costs which includes the preparation of budgets, co-ordinating the departments and establishing responsibilities, comparing actual performance with the budgeted and acting upon results to achieve maximum profitability’’.

Budgetary control is defined by the Institute of Cost and Management Accountants (CIMA) as:

"The establishment of budgets relating the responsibilities of executives to the requirements of a policy, and the continuous comparison of actual with budgeted results, either to secure by individual action the objective of that policy, or to provide a basis for its revision".

1.3 OBJECTIVES

Objectives of Budgeting

- Budgeting helps o plan and control the income and expenditure of manufacturing and trading operations.
- It helps of pre-determine the capital expenditure of a business.
- Budgeting to decide upon and control expenditure on development and research.
- To provide for adequate working capital.
- To decentralise responsibility without transferring authority.
- Budgeting to control the operations of the lower level of management and workers while retaining effective control of the enterprise with the top management.

Objectives of Budgetary Control

- Planning
- Co-ordination
- Recording
- Comparison
- Appraisal and Follow up

1.4 CHARACTERISTICS OF A BUDGET

- **Participation:** As many people as possible involve in drawing up a budget.
- **Comprehensiveness:** All-inclusiveness the whole organisation.
- **Standards:** Base it on established standards of performance.
- **Flexibility:** Allow for changing circumstances.
- **Feedback:** Constantly monitor performance.
- **Analysis of costs and revenues:** This can be done on the basis of product lines, departments or cost centres.

1.5 ADVANTAGES OF BUDGETARY CONTROL

1.5.1 Improvement in Planning

- Intelligent consideration of future events
- Clarity of objectives
- Specificity in planning
- Best utilisation of resources
- Delegation of Authority and Responsibility
- Stability in Business Operations
- It enhances the collateral value of the enterprise

1.5.2 Aid-in Coordination

- It promotes a balanced procedure of activities
- It promotes mutual co-operation and team spirit
- It motivates the people
- It brings co-ordination among business policies, plans and procedures also.

1.5.3 Tool of Comprehensive Control

- It helps in controlling the costs and performance
- It brings efficiency to communication system

1.5.4 Other Benefits

- It assists in standard costing also
- It evaluates the performance
- Management by exception becomes feasible

1.6 LIMITATIONS OF BUDGETARY CONTROL

- Budgets are only Estimating
- Rigid Approach
- Impersonal Approach to the system of control
- Lack of co-ordination
- Costly System

1.7 IMPORTANCE OF BUDGETARY CONTROL

The importance of budgetary is reflected in the element that it helps the management to trail the company's performance efficiently. Such monitoring ensures that the deviation of the company's actual performance from the budgeted one is always under the scanner and it can be rectified before it is too late. In this way, the unfavorable impact of the deviations on corporate profit is moderated to a large extent.

1.8 SCOPE OF BUDGETARY CONTROL

- Budgetary control is to define the business objectives exactly and establish the performance targets.
- It describes the responsibilities of each department as well as each person.
- To create a standard target for measuring performance.
- It identifies the reasons for variation, if any, and take necessary helpful actions.
- To ensure best utilization of available resources to improve productivity and profitability.

1.9 BUDGET – KEY FACTOR

- Budget 'Key Factor' is an important concept in the process of budgetary control. This is the factor the extent of whose influence must be assessed in order to ensure that the functional budgets are reasonable capable of fulfilment.
- A budget key factor or principal budget factor is described as follows: "The factor which at a particular time or over a period will limit the activities of an undertaking. The limiting factor is usually the level of demand for the products or services of the undertaking but it could be a shortage of one of the productive resources, e.g., skilled labour, raw material or machine capacity. In order to ensure that the functional budgets are reasonably capable of fulfilment the extent of the influence of this factor must first be assessed". It is also known as 'Governing Factor'.
- As we know all the functions in all organisations are inter-linked. The target one has influence on that of the other.

1.10 INTRODUCTION TO THE PREPARATION OF BUDGET

1.10.1 Creation of Budget Centers

- The first step in the budget preparation is the creation of budget centres. A budget centre is a section of the organisation of an undertaking defined for the purposes of budgetary control. Generally different departments organised on the basis of functions from budget centres and departmental heads work as responsibility centre. For example, production manager has to be consulted for the preparation of production budget.

1.10.2. Provision of Adequate Accounting Records

- An efficient budgetary system requires the provision of appropriate and adequate accounting records also. A 'chart of accounts' corresponding with the budget centres should be maintained in order to help in preparation and analysing information.

1.10.3. Setting the Guidelines

- The next step in the preparation of budgets is setting the guidelines. It is mainly concerned with determining management policy with regard to range of products, stock levels, channels of distribution, investment policies, etc. Besides it, it also requires that all people connected with budget preparations must be educated in the general techniques of budgeting process. They must be well acquainted with the targets fixed individually for them and with the overall budgetary goals of the whole enterprise so that they may be conscious of their role in the accomplishment of the targets.

1.10.5. Establishment of a Budget Committee

- The budget committee will prepare, review, discuss and co-ordinate budget activities in the organisation. A good budget is the result of the executives responsible for their own particular phase of the activities of the organisation.

1.10.5. Preparation of Budget

- '' A budget manual is a document which sets out the responsibilities of the persons engaged in the routine of the forms and records required for budgetary control''.

1.10.6. Length of the Budget Period

- The majority of companies prepare budgets once a year. For control purposes, the annual totals may simply be divided by 12 to obtain monthly budgets, but if seasonal fluctuations are important, separate budget estimates should be made for each month or the season.

1.10.7. Determination of the 'Key Factor'

- "This is the factor the extent of who's in influence must first be assessed in order to ensure that the functional budgets are reasonably capable or fulfilment". A key factor dominates the business operation as to present obstacles in the achievement of the budgeted targets.

1.11 FUNCTIONS OF BUDGET COMMITTEE

- To lay down general policies of management in relation to the budgetary system.
- To lay down the various guidelines for the preparation and implementation of the budgets.
- To provide historical data to help managers in forecasting.
- To help in the preparation of various functional budgets.
- To assemble the budget figures and to see that everyone submits his figures on time.

- To scrutinize budgets.
- To suggest lines of revision and amendments, if needed, in the submitted budgets.
- To accord final approval to budget.
- To formulate the Master Budget.
- To prepare budget summaries, if required.
- To keep track of deviations of actual results from those budgeted.
- To recommend corrective action if and when required.
- To co-ordinate the whole budgetary programme.
- To resolve the departmental difference among various line executive members in the committee.
- To submit the final budget to the president and to the board of directors for approval.

LET'S SUM UP

- Dear students, in this module we understand about the budget and budgetary control and their importance helps in accountants' people in the organization. We learn how budget uses of preplanning coordination and controlling to the future expectation of different department expenditures.

GLOSSARY

Budget	A budget is a detailed plan of operations for some specific future period. It is an estimate prepared in advance of the period to which it applies.
Definition of Budget	**According to George R.Tesry, ''Budget is an estimate of future needs arranged according to an orderly basis, covering some or all of the activities of an enterprise for definite period of time''.**
Objectives	Budgeting helps o plan and control the income and expenditure of manufacturing and trading operations. It helps of pre-determine the capital expenditure of a business.
Characteristics	Participation

	• Comprehensiveness • Standards • Flexibility
Advantages	• Improvement in Planning • Aid-in Coordination • Tool of Comprehensive Control
Limitations	• Budgets are only Estimating • Rigid Approach • Impersonal Approach to the system of control
Importance	• The importance of budgetary is reflected in the element that it helps the management to trail the company's performance efficiently
Scope	• Budgetary control is to define the business objectives exactly and establish the performance targets. • It describes the responsibilities of each department as well as each person.
Budget – Key Factor	• Budget 'Key Factor' is an important concept in the process of budgetary control. This is the factor the extent of whose influence must be assessed in order to ensure that the functional budgets are reasonable capable of fulfilment.
Preparation of Budget	• Creation of Budget Centers • Provision of Adequate Accounting Records • Setting the Guidelines • Preparation of Organization Chart • Establishment of a Budget Committee • Length of the Budget Period

	Determination of the 'Key Factor'
Functions	To provide historical data to help managers in forecasting. To help in the preparation of various functional budgets. To assemble the budget figures and to see that everyone submits his figures on time. To scrutinize budgets.

CHECK YOUR PROGRESS.

1. A Budget is a Plan of action Expressed in__________			
a) Financial Terms	b) Non-Financial Terms	c) Both	d) Subjective Matter
2. Budget is prepared for a _______			
a) Indefinite Period	b) Definite Period	c) Period of one year	d) Six Months
3. A Budget is tool which helps the management in planning and control of_________			
a) All Business Activities	b) Productive Activities	c) Purchase Activities	d) Sales Activities
4. Revision of Budget is __________			
a) Unnecessary	b) Can't Determine	c) Necessary	d) Inadequate Data
5. The Scare factors is also known as___________			
a) Key factor	b) Abnormal factor	c) Linking factor	d) None of the above

MODULE – 2
(TYPES OF BUDGET)

TYPES OF BUDGET

Types of Budget

Functional Classification
- Sales Budget
- Production Budget
- Purchase Budget
- Personal Budget
- Research and Development Budget
- Cash Budget
- Capital Budget
- Master Budget

Time Classification
- Short-term budgets
- Current Budgets
- Long-term Budgets

Nature of Transactions
- Operating budgets
- Capital Budgets

Activity Level Budgets
- Fixed budgets
- Flexible budgets

2.1 FUNCTIONAL CLASSIFICATION OF BUDGETS

Budgets can be prepared on a functional basis. When individual budgets are associated with a particular function and are integrated with the Master Budgets of the business, they are called functional budgets. Such main budgets are as follows:

Sales Budget

The sales budget is a forecast of total sales classified according to group of products are expected to be sold in what quantity and at what prices. A sales budget is generally regarded as the keystone of budgeting. It reflects the expected revenue from sales and cash receipts from customers.

Production Budget

It is a forecast of budgeted production based on sales, productive capacity and requirements of inventories etc.

Production Cost Budget

It is a forecast of cost of production including direct material cost, direct Labour cost and other overheads - fixed, variable and semi-variable. This production cost budget can be sub-divided into Materials Requirement Budget, Direct Labour Budget, Factory overheads. Budget and Office and Administrative overheads budgets, etc. Material Budget is also known as purchase budget.

- **Personnel Budget**

It is a budget of personnel inventory hence it would automatically include Labour employed in productive capacity.

- **Research and Development Budget**

This budget relates to the improvement in the quality of the products or research for new products.

- **Cash Budget**

It is one of the important budgets. It is a sum-total of the requirements of each in respect of various functional budgets as well as of anticipated cash receipts.

- **Capital Budget**

It is a forecast of outlay on fixed assets as also of the sources of capital required.

- **Master Budget**

Master budget is an integrated budget prepared from the separate functional budgets. The Institute of Cost and Management Accountings, England, defines it as 'the Summary Budget. Incorporating its component functional budgets, which is finally approved, adopted and employed'. In other words, it is a summary budget which is prepared from and summarizes all the functional budgets. This summarizing is done in the form of

(a) Budgeted Profit and Loss Account/Budgeted Profit and Loss Appropriation Account

(b) Budgeted Balance Sheet.

Budgeted Profit and Loss/Profit and Loss appropriation Account shows the principal items of revenue, expenses, loss as well as profit whereas the Budgeted Balance Sheet reveals the principal items of Balance Sheet. This budget is prepared by the budget officer. After its preparation, it is submitted to the budget committee for its approval. If the budget committee does not find it satisfactory, it makes suitable changes in this budget and puts it into action when the final approval is given, However, once it is approved, the company seeks to a achieve the targets during the budget period.

- **Other Functional Budgets**

There may be other functional budgets also, for example, selling and distribution cost budget. Administrative overhead budget, etc.

2.2 CLASSIFICATION OF BUDGETS ACCORDING TO TIME

According to time or periodicity, the budgets may be broadly of the following three steps

- **Long-term Budgets**

Such budgets are prepared with a long-term view. They are concerned with planning the operations of a firm over five to ten years. They are prepared generally in the form of physical quantities.

- **Short-term Budget**

Such budget is prepared for a period of one or two years. It is generally in the shape of a short-term production plan.

- **Current Budgets**

Such budgets are prepared for a very short period for example one month, one quarter or a season and so on.

2.3 BUDGETS ACCORDING TO NATURE OF TRANSACTIONS

On the basis of nature of transactions, budgets may be divided into two categories,

- **Operating Budget**

Operating budget is frequently known as revenue budget or income and expense budget also. It relates to the entire operations of firm. This budget lays down the estimated net profit, operating budget is the life blood of budgeting system which depicts the overall policies and plans of the firm, covering a definite period. There are two main components of the operating budget - sales budget and expense budget.

- **Capital Budgets**

These are related to the capital structure and liquidity of the enterprise. These include working capital budget Annual cash budget. Budgeted Equity Capital and Loan Capital, Budgeted Investments in Fixed Assets, etc.,

2.4 BUDGETS ACCORDING TO ACTIVITY LEVELS

Budgets according to activity levels may be of two types -

- **Fixed Budget**

It is a budget in which targets are rigidly fixed. This is a forecast of the targets for the coming year prepared well in advance-sometimes even two and three months before the year. These targets are used as a standard yardstick to measure actual performance. Though a fixed budget can be revised, whenever the necessity arises, but generally their nature is of static character.

- **Flexible Budget**

It is also known as a Variable Budget. If the costs in a responsibility center are expected to vary with the volume of production, as is the case with most production departments, the flexible budgets can be prepared. Such a Budget shows the expected behaviour of costs at various volume levels. Thus, a variable budget possesses a distinct advantage over the fixed budget, particularly where it is difficult to forecast sales, costs and expenses with exact or greater accuracy.

LET'S SUM UP

- Dear Students, we know about the types of Budgets, Budgeting is the process of identifying, gathering, summarizing and communicating financial information of an organization's future activities whereas, a budget is a plan showing the organization's objectives and how management intends to acquire and use resources to attain those objectives.
- The budgeting process is carried out to identify whether the person or organization can continue to operate with its projected income and expenses. Each department using a various type of budgets.

GLOSSARY

Types of Budget	Functional Classification Time Classification Nature of Transactions Activity Level Budgets
Functional Classification of Budgets	Production Budget Purchase Budget Personal Budget Research and Development Budget Cash Budget Capital Budget Master Budget
Classification of Budgets According to Time	Short-term budgets Current Budgets Long-term Budgets
Budgets According to Nature of Transactions	Operating Budget Capital Budgets

Budgets According to Activity Levels	Fixed Budget Flexible Budget

CHECK YOUR PROGRESS

1. Short term budget is prepared for ______________			
a) Liquidity	b) Working capital Management	c) To exercise control over day to day expenditure	d) All of the above
2. Long term budget is prepared for ______________			
a) Capital Expenditure	b) Research & Development	c) Long term Finances	d) All of the above
3. Cash Budget is based on ___________			
a) Sales forecasts	b) Expenses budgets	c) Capital Expenditure Budget	d) All of the above
4. Budgetary control system facilitates centralized control with:			
a) Decentralized activity	b) Centralized activity	c) Both A & B	d) None of the Above
5. Summary budget may be regarded as:			
a) Functional budget	b) Performance Budget	c) Master Budget	d) Sales Budget

****

MODULE – 3
(PREPARATION OF FIXED AND FLEXIBLE BUDGETING)

3.1 PREPARING STEPS INVOLVED IN DEVELOPING A FLEXIBLE BUDGET

- Deciding the range of activity to which the budget is to be prepared.
- Determining the cost behaviour patterns (fixed, variable, semi-variable) for each element of cost to be included in the budget.
- Selecting the activity levels (generally in terms of production) to prepare budgets at those levels.
- Preparing the budget at each activity level selected by associating the activity level with corresponding costs. The corresponding costs to be attached with each activity level are determined in terms of their behaviour, i.e., fixed, variable, semi-variable.

3.2 PURPOSE OF FIXED AND FLEXIBLE BUDGETS

- Flexible budgets Showing profits and expenses that should have occurred at the actual level of activity.
- May be prepared for several activity levels in the applicable range.
- Expose variances due to good cost control or lack of cost control.
- Established performance evaluation and helps managers focus on problem areas.

3.3 DIFFERENCES BETWEEN FIXED BUDGET AND FLEXIBLE BUDGET

- Budget, which remains constant, regardless of the actual output levels is known as Fixed Budget. The flexible budget is a budget which can be easily adjusted according to the output levels.
- Fixed Budget is fixed in nature while Flexible Budget is dynamic.
- Fixed Budget works in only one activity level, but Flexible Budget can be operated on multiple levels of output.
- Fixed Budget assumes, whereas Flexible Budget is realistic.
- Fixed Budget is inelastic, as it cannot be re-casted as per the actual output. Conversely, the Flexible budget is elastic because it can be easily adjusted according to the volume of the production.
- Flexible Budget proves more accurate to evaluate the performance, capacity and efficiency of the activity level compared to Fixed Budget.

Problem 1:

The monthly budget for the manufacturing overhead of a concern for two levels of activity were as follows.

Capacity Level	60%	100%
Budgeted Production (units)	600	1000
	Rs	Rs
Indirect wages	1200	2000
Consumable stores	900	1500
Maintenance	1100	1500
Power and Fuel	1600	2000
Depreciation	4000	4000
Insurance	1000	1000

- **Indicate which of the items are fixed, variable and semi-variable.**
- **Prepare a flexible budget for 80% of the activity.**

Solution:

Particulars	Capacity Level		
Capacity Level Units	60%	80%	100%
	600	**800**	**1000**
Fixed Cost:	**Rs**	**Rs**	**Rs**
Depreciation	4000	4000	4000
Insurance	1000	1000	1000
Maintenance	500	500	500
Power and fuel	1000	1000	1000
Total Fixed Cost	**6500**	**6500**	**6500**
Variable Cost:			
Wages @ Rs.2 per unit	1200	1600	2000
Consumable @ Rs.1.5 per unit	900	1200	1500
Maintenance @ Re.1/ unit	600	800	1000
Power and Fuel @ Re.1/ unit	600	800	1000
Total Variable cost	**3300**	**4400**	**5500**
Total cost [FC+VC]	**6500 + 3300 = 9800**	**6500 + 4400 = 10900**	**6500 + 5500 = 12000**
Workings:	**16.33**	**13.62**	**12.00**

Cost per unit = Total Cost/Output			

1. i) Fixed : Depreciation and Insurance.

   ii) Variable : Wages consumable stores.

   iii) Semi-Variable: Maintenance Power and Fuel.

2. **Budget for 80% capacity (output 800 units)**

Wages @ Rs.2 per unit	1600
Consumable stores (1.50 x 800)	1200
Maintenance Rs.500 + (800 x 1)	1300
Power and Fuel Rs.1000 + (800 x 1)	1800
Depreciation	4000
Insurance	1000
Total Cost	**10900**

3.

9800 / 600	10900 / 800	12000 / 1000
= Rs.16.33	**= Rs.13.62**	**= Rs.12.00**

4. **Variable Cost**

a) Wages 1200/600 = Rs.2 or 2000/1000 = Rs.2

b) Consumable stores = 900/600 = Rs.1.50 or 1500/1000 = Rs.1.50

c) Maintenance 1100/600 = 1.83 or 1500/1000 = Rs.1.50

So, it is treated as semi variable i.e.,

1500-1100 / 1000-600 = 400/400 = Rs.1 is variable and Rs.500 (i.e., 1100-600) is fixed

d) Power and Fuel: 1600/600 = 2.66 and 2000/1000 = Rs.2

So, it is also treated as semi variable cost

i.e., 2000-1600/1000-600 = 400/400 = Rs.1 is variable and Rs.1000 (i.e., 1600-600) is fixed.

****

Problem 2:

Draw up a flexible budget for overhead expenses on the basis of the following data and determine the overhead rate at 70% , 80% and 90% of plant capacity.

Capacity Level	**70%**	**80%**	**90%**
Variable Overheads			
Indirect Labour	-	12000	-
Stores including spares	-	4000	-
Semi-variable Overheads			
Power (30% fixed, 70% variable)	-	20000	-
Repairs & Maintenance (60% fixed, 40% variable)	-	2000	-
Fixed Overheads			
Depreciation	-	11000	-
Insurance	-	3000	-
Salaries	-	10000	-
Total Overheads	**-**	**62000**	**-**
Estimated Direct Labour Hrs.	-	124000 Hrs.	-

lution:

Particulars	**Capacity Level**		
Particulars	**70%**	**80%**	**90%**
Fixed Cost			
Depreciation	11000	11000	11000
Insurance	3000	3000	3000
Salaries	10000	10000	10000
Power	6000	6000	6000
Repairs and Maintenance	1200	1200	1200
Total Fixed Cost	**31200**	**31200**	**31200**
Variable cost			
Indirect Labour	10500	12000	13500
Stores including spares	3500	4000	4500
Power	12250	14000	15750
Repairs and Maintenance	700	800	900
Total Variable Cost	**26950**	**30800**	**34650**
Total cost (FC + VC)	31200+26950=	31200+30800=	31200+34650=

	58150	62000	65850
Estimated Direct Labour Hours **Cost per hour = [Total cost / Total hours x 1 hour]**	108500 **0.536**	124000 **0.500**	139500 **0.472**

Workings:

Fixed Cost from semi variable overheads:

1. Power (100%)	Rs.20000	(1)	(20000 x 30/100)
Less: 30 % Fixed	6000		
70% Variable	**14000**		
2. Repairs and Maintenance	Rs. 2000		
Less: 60% fixed	1200	(2)	(2000 x 60/100)
40 % Variable	**800**		

Variable Cost:

a) Indirect Labour
12000/80 x 70 = 10500
12000/80 x 90 = 13500

b) Stores including spare
4000 / 80 x 70 = 3500
4000 / 80 x 90 = 4500

c) Power
14000/80 x 70 = 12250
14000/80 x 90 = 15750

d) Repairs and maintenance
800/80 x 70 = 700
800/80 x 90 = 900

Hours cost per hour:

124000/80 x 70 = 108500

124000/80 x 90 = 139500

At 70% Capacity 58150/108500 x 1 = Rs.0.536

At 80% Capacity 62000/124000 x 1 = Rs.0.500

At 90% Capacity 65850/139500 x 1 = Rs.0.472

****

Problem 3:

ABC Ltd. has prepared the budget for the production of one lakh units of the only commodity manufactured by them for a costing period as under.

Raw material	-	Rs.2.52 per unit
Direct material	-	Rs.0.75 per unit
Direct expenses	-	Rs.0.10 per unit
Works Overhead (60% fixed)	-	Rs.2.50 per unit
Administrative overhead (80% fixed)	-	Rs.0.40 per unit
Selling overhead (50% fixed)	-	Rs.0.20 per unit

The actual production during the period was only 60000 units. Calculate the revised budgeted cost per unit.

Solution:

Flexible Budget

Particulars	100000 units		60000 units	
	CPU Rs	TC Rs	CPU Rs	TC Rs
Fixed Cost				
Works Overhead	1.50	150000	2.50	150000
Administrative overhead	0.32	32000	0.53	32000
Selling Overhead	0.10	10000	0.17	10000
Total Fixed Cost	**1.92**	**192000**	**3.2**	**192000**
Variable cost				
Raw Material	2.52	252000	2.52	151200
Direct Labour	0.75	75000	0.75	45000
Direct Expenses	0.10	10000	0.10	6000
Works overhead	1.00	100000	1.00	60000

Administrative Overhead	0.08	8000	0.08	4800
Selling overhead	0.10	10000	0.10	6000
Total VC	**4.55**	**455000**	**4.55**	**273000**
Total cost [FC + VC]	1.92+4.55= **6.47**	192000+455000= **647000**	3.2+4.55= **7.75**	192000+273000= **465000**

Workings:

[CPU = Cost Per Unit, TC = Total Cost]

1. Works Overhead 2.50 (100%)

   Less : Fixed 1.50 (60%)

   Variable **1.00 (40%)**

   Fixed Cost x Budgeted production 1.50 x 10000 = 150000

2. Administrative Overhead 0.40 (100%)

   Less : Fixed 0.32 (80%)

   Variable **0.08 (20%)**

   Fixed Cost x Budgeted production 0.32 x 100000 = 32000

3. Selling Overhead 0.20 (100%)

   Less : Fixed 0.10 (50%)

   Variable **0. 10 (50%)**

   Fixed Cost x Budgeted production 0.10 x 100000 = 10000

****

Problem 4:

For production of 10000 Electrical Automatic Irons the following are the budgeted expenses.

Cost element	**Cost Per Unit Rs.**
Direct material	60
Direct Labour	30
Variable overheads	25
Fixed overhead (Rs.150000)	15
Variable expenses (Direct)	5
Administrative Expenses	5

(Rs.50000 rigid for all levels of production	
Distribution Expenses (20% fixed)	5
Total cost of sale per unit	*160*

Prepare a Budget for production of 6000, 7000 and 8000 irons showing distinctly Marginal Cost and Total Cost.

Solution:

Flexible Budget

Particulars	6000 units		7000 units		8000 units		10000 units	
	CPU Rs	TC Rs	CPU Rs	TC Rs	CPU Rs	TC Rs	CPU Rs	TC Rs
Fixed cost overheads	25	150000	21.43	150000	18.75	150000	15.00	150000
Administrative expenses	8.33	50000	7.14	50000	6.25	50000	5.00	50000
Distribution expenses	1.67	10000	1.43	10000	1.25	10000	1.00	10000
Selling expenses	2.5	15000	2.14	15000	1.88	15000	1.50	15000
Total fixed cost	**37.5**	**225000**	**32.14**	**225000**	**28.13**	**225000**	**22.50**	**225000**
Variable Cost								
Direct material	60	360000	60	420000	60	480000	60	600000
Direct Labour	30	180000	30	210000	30	240000	30	300000
Variable overhead	25	150000	25	175000	25	200000	25	250000
Variable expenses	5	30000	5	35000	5	40000	5	50000
Selling expenses	13.50	81000	13.50	94500	13.50	108000	13.50	135000
Distribution expenses	4.00	24000	4.00	28000	4.00	32000	4.00	40000
Total variable cost	**137.50**	**825000**	**137.50**	**962500**	**137.50**	**1100000**	**137.50**	**1375000**
Total Cost [TFC + TVC]	***175***	***1050000***	***169.64***	***1187500***	***165.63***	***1325000***	***160***	***1600000***

Workings:

[CPU = Cost Per Unit, TC = Total Cost]

1. Distribution Expenses	5.00
Less : Fixed	1.00
Variable	**4.00**
Fixed Cost x Budgeted production	1 x 10000 = 10000
2. Selling expenses	15.0

Less : Fixed	1.50
Variable	**13.50**
Fixed Cost x Budgeted production	1.50 x 10000 = 15000

****

LET'S SUM UP

- Dear Students, we understand about this section, Flexible budgeting is an effective management control tool. Business operations are conducted more efficiently and losses are avoided or reduced. Comparison between the budgeted costs (at the actual production level) and actual costs form the basis for analyzing cost variances and fixing responsibility for the same. In fact, managers themselves feel motivated in controlling costs for which they are responsible.
- The flexible budget provides cost goals or targets based on scheduled activity or output before the decision point, i.e., before the cost is incurred. This contributes to cost control throughout the organization.

GLOSSARY

Steps involved in developing a Flexible Budget	Deciding the range of activity to which the budget is to be prepared. Determining the cost behaviour patterns (fixed, variable, semi-variable) for each element of cost to be included in the budget.
Purpose of Fixed and Flexible Budgets	May be prepared for several activity levels in the applicable range. Expose variances due to good cost control or lack of cost control. Established performance evaluation and helps managers focus on problem areas.
Differentiate between Fixed and Flexible Budgets	Fixed Budget is fixed in nature while Flexible Budget is dynamic. Fixed Budget works in only one activity level, but Flexible Budget can be operated on multiple levels of output. Fixed Budget assumes, whereas Flexible Budget is realistic.

CHECK YOUR PROGRESS

1. __________ refers to expected results of a given future period in numerical terms.

a) Projects	b) Budgets	c) Programmes	d) Procedures

2. Budgetary control helps in implementation of ______________

a) Standard Costing	b) Marginal	c) Ratio Analysis	d) Technical Analysis

	Costing		
3. The Budget are classified on the basis of __________			
a) Capacity	b) Time	c) Functions	d) All of the above
4. Sales Budget shows the sales details as:			
a) Product wise	b) Area wise	c) Region wise	d) None of the Above
5. Production budget is depending on:			
a) Purchase budget	b) Sales Budget	c) Cash Budget	d) Overhead Budget

****

MODULE – 4
(PREPARATION OF CASH BUDGET)

STEPS IN PREPARING A CASH BUDGET

Step 1: Set out a pro forma cash budget month by month. Below is a suggested layout.

	Month 1	Month 2	Month 3
Cash receipts			
Receipts from debtors			
Sales of capital items			
Loans received			
Proceeds from share issues			
Any other cash receipts			
Cash payments			
Payments to creditors			
Wages and salaries			
Loan repayments			
Capital expenditure			
Taxation			
Dividends			
Any other cash expenditure			
Receipts less payments			
Opening cash balance b/f	W	X	Y
Closing cash balance c/f	X	Y	Z

Step 2: Sort out cash receipts from debtors

Step 3: Other income

Step 4: Sort out cash payments to suppliers

Step 5: Establish other cash payments in the month

4.1.1 CASH BUDGET

The cash budget is a summary of the firm's expected cash inflows and outflows over a particular period of time. In other words, cash budget involves a projection of future cash receipts and cash disbursements over various time intervals. There must be a balance between cash and the cash demanding activities/operations, capital expenditure and so on. Very often, the need for additional cash is not realized until the situation becomes critical.

The cash budget consists of two parts:

1. The projected cash receipts (Inflows) and;
2. The planned cash disbursements (Outflows).

Cash receipts include collection from debtors, cash sales, dividends received, sale of assets, loans received and issues of shares and debentures. Payments include 16 wages and salaries, payment to creditors and suppliers, rent and rates, taxes, capital expenditure, dividend payable, commission payable and repayment of loans and debentures.

4.2 PURPOSES OF THE CASH BUDGET

1. To indicate the probable cash position as a result of planned operations.
2. To indicate cash excess or shortages.
3. To indicate the need for borrowing or the availability of idle cash for investment.
4. To make provision for the coordination of cash in relation to (a) total working capital; (b) sales; (c) investment; and (d) debt.
5. To establish a sound basis for credit.
6. To establish a sound basis for exercising control over cash and liquidity of the firm

4.3 MANAGEMENT ACTION AND COST CONTROL

Producing information in management accounting form is expensive in terms of the time and effort involved. It will be very wasteful if the information once produced is not put into effective use.

There are five parts to an effective cost control system. These are:

1. Preparation of budgets.
2. Communicating and agreeing budgets with all concerned.
3. Having an accounting system that will record all actual costs
4. Preparing statements that will compare actual costs with budgets, showing any variances and disclosing the reasons for them, and
5. Taking any appropriate action based on the analysis of the variances in the above.

Action(s) that can be taken when a significant variance has been revealed will depend on the nature of the variance itself. Some variances can be identified to a specific department and it is within that department's control to take corrective action. Other variances might prove to be much more difficult, and sometimes impossible, to control.

Variances revealed are historic. They show what happened last month or last quarter and no amount of analysis and discussion can alter that. However, they can be used to influence managerial action in future periods.

Problem 1:

A Company expects to have Rs.37500 cash in hand on 01.04.2023. and requires you to prepare an estimate of cash position during the three months April to June 2023. The following information is supplied to you.

Months	Sales	Purchases	Wages	Factory expenses	Office expenses	Selling expenses
Feb	75000	45000	9000	7500	6000	4500
March	84000	48000	9750	8250	6000	4500
April	90000	52500	10500	9000	6000	5250

May	120000	60000	13500	11250	6000	6570
June	135000	60000	14250	14000	7000	7000

Other Information:

1. The period of credit allowed by suppliers – 2 months
2. 20% sales are for cash and period of credit allowed to customers for credit sale is 1 month
3. Delay in payment of all expenses – 1 month
4. Income Tax of Rs.57500 is due to be paid on June 15, 2023
5. The company is to pay dividends to shareholders and bonus to workers which is Rs.15000 and Rs,22500 respectively in the month of April.
6. Plant has been ordered and is expected to be received and paid in May. It will cost Rs.120000.

Solution:

Cash Budget

Particulars	April	May	June
Opening cash	37500	11700	(-) 91050
BalanceReceipts:			
Amount received from cash sales (20%)	18000	24000	27000
Amount received from credit sales [80% of previous months sales]	67200	72000	96000
Total Receipts	**122700**	**107700**	**31950**
Payments:			
Amount paid to creditors [2 months previous month purchase]	45000	48000	52500
Wages [previous month]	9750	10500	13500
Factory expenses [previous month]	8250	9000	11250
Office expenses [previous month]	6000	6000	6000
Selling expenses [previous month]	4500	5250	6570
Income Tax Paid	-	-	-
Dividend to shareholders	15000	-	-
Bonus to workers	22500	-	-
Amount paid for purchase of plant	-	120000	-
Total payment	111000	198750	147320
Closing balance [TR-TP]	11700	-91050	-115370
	99300	107700	31950

****

Problem 2:

Prepare a cash budget for 3 months ended on 30th Sep 2023.

Cash at Bank on 01.07.2023 - Rs.25000

Salaries and wages monthly - Rs.10000

Interest Payable - Rs.5000 (August)

Particulars	June (Rs)	July (Rs)	August (Rs)	September (Rs)
Cash sales	-	140000	152000	121000
Credit sales	100000	80000	140000	120000
Purchases (Rs)	160000	170000	240000	180000
Other Purchases	-	20000	22000	21000

Credit sales are collected 50% in the month in which sales are made, and 50% in the month following. Collection from credit sales are subject to 5% discount if payment is received during the month of sales and 2 ½ % if payment is received in the month following.

Creditors are paid either on a prompt category or 30 days basis. It is estimated that 10% of creditors are in the prompt category.

Solution:

Cash Budget for three months ended 30.09.2023

Particulars	July (Rs)	August (Rs)	September (Rs)
Opening Cash	25000	60750	104250
Receipts			
Cash Sales	140000	152000	121000
Amount received from credit sales	86750	105500	125250
Total Receipts	**251750**	**318250**	**350500**
Payments			
Amount paid to creditors (10% prompt category)	17000	24000	18000
Amount paid to creditors (90% on 30-day basis)	144000	153000	216000
Other expenses	20000	22000	21000
Salaries and wages	10000	10000	10000
Interest payable	-	5000	-
Total Payment	**191000**	**214000**	**265000**
Closing Balance [TR - TP]	***60750***	***104250***	***85500***

Workings:	July (Rs)	August (Rs)	September (Rs)
Collection of Credit sales			
i) 50% in the month of sales are made	40000	70000	60000
Less : Discount 5%	2000	3500	3000
	38000	66500	57000
ii) 50% in the month following months sales	50000	40000	70000
Less : Discount 2 ½ %	1250	1000	1750
	48750	39000	68250

July = 38000 + 48750 = 86750

August = 66500 + 39000 = 105500

September = 57000 + 68250 = 125250

****

Problem 3:

Sarathi & Co. wishes to arrange overdraft facilities with its bankers during period April to June, when it will be manufacturing mostly for stock. Prepare cash budget for the above period from the following data. Including the extent of bank facilities the company will require at the end of each month.

Months	Sales Rs	Purchases Rs	Wages Rs
February	180000	124800	12000
March	192000	144000	14000
April	108000	243000	11000
May	174000	246000	10000
June	126000	268000	5000

a) 50% of credit sales is realized in the month following the sale and the remaining 50% in the second month following. Creditors are paid in the month following the month of purchase.

b) Cash at Bank on 1st April (estimated) Rs.25000.

Solution:

Cash Budget

Particulars	April	May	June
Opening cash balance	25000	56000	3000
Receipts			
Amount collected from credit sales	186000	150000	141000
Total Receipts	**211000**	**206000**	**144000**
Payments			
Amount paid to creditors	144000	243000	246000
Wages paid	11000	10000	5000
Total Payments	**155000**	**253000**	**251000**
Balance	56000	-47000	-107000
Bank Overdraft	-	OD+50000	120000
Closing Balance	***56000***	***3000***	***13000***

Workings:

Collection of Credit sales

April 50% of March + 50% of Feb.
96000 + 90000 = 180000

May = 50% April + 50% March
54000 + 96000 = 150000

June = 50% of May + 50% April
87000 + 54000 = 141000

****

Problem 4:

Prepare cash budget for the month of May, June and July 2023 on the basis of the following information

Months	Credit sales (Rs)	Credit purchases (Rs)	Wages (Rs)	Manufacturing Expenses (Rs)	Office Expenses (Rs)	Selling expenses (Rs)
March	60,000	36,000	9,000	4,000	2,000	4,000
April	62,000	38,000	8,000	3,000	1,500	5,000
May	64,000	33,000	10,000	4,500	2,500	4,500
June	58,000	35,000	8,500	3,500	2,000	3,500
July	56,000	39,000	9,500	4,000	1,000	4,500

1. Cash Balance On 1st May 2023 is Rs. 8000.
2. Plant costing Rs 16000 is due for delivery in July. Payable 10% on delivery and the balance after 3 months.
3. Advance tax of Rs.8000 each is payable in march and June.
4. Period of credit allowed (1) by suppliers- 2 months and (2) to customers one month.
5. Lay in payment of manufacturing expenses- ½ month.
6. Lag in payment of office and selling expenses –one month

Solution:

Cash Budget

Particulars	May	June	July
Opening cash balance	8000	13750	12250
Receipts			
Amount received from credit sales	62000	64000	58000
Total Receipts	**70000**	**77750**	**70250**
Payments			
Wages paid	10000	8500	9500
Amount paid to purchase of plant	-	-	1600
Advance Tax	-	8000	-
Amount paid to creditors	36000	38000	33000
Manufacturing expenses paid	3750	4000	3750
Office expenses	1500	2500	2000
Selling expenses	5000	4500	3500
Total Payments	**56250**	**65500**	**53350**
Closing Balance	***13750***	***12250***	***16900***

Workings:

Manufacturing expenses

May = ½ of May + ½ of April
= 2250 + 1500 = 3750

June = ½ of June + ½ of May
= 1750 + 2250 = 4000

July = ½ of July + ½ of June
= 2000 + 1750 = 3750

****

Production Budget

Problem 4:

Prepare a production budget for three months ending on March 31,2020 for a factory producing four products on the basis of the following information.

Type of Product	Estimated Stock on 1.1.2020 (units)	Estimated sales during Jan. March	Type of Product
A	2000	10000	3000
B	3000	15000	5000
C	4000	13000	3000
D	5000	12000	2000

Solution:

Formula for production Budget = Sales + closing stock – Opening Stock

Production Budget for three months from Jan to March

Product A:	Estimated sales	10000	
	Add: Closing stock	3000	
		13000	
	Less: Estimated Opening Stock	2000	11,000
Product B:	Estimated sales	15000	
	Add: Closing stock	5000	
		20000	
	Less: Estimated Opening Stock	3000	17,000
Product C:	Estimated sales	13000	
	Add: Closing stock	3000	
		16000	
	Less: Estimated Opening Stock	4000	12,000
Product D:	Estimated sales	12000	
	Add: Closing stock	2000	
		14000	
	Less: Estimated Opening Stock	3000	11,000
		Total Production Units	**51000**

****

Sales Budget

Problem 5:

Kishan & Co. sells two products A and B which are manufactured in one plant. During the year 2022, it plans to sell the following quantities of each product.

	I^st Quarter	**II^nd Quarter**	**III^rd Quarter**	**IV^th Quarter**
Product A	**90000**	**250000**	**300000**	**80000**
Product B	**80000**	**75000**	**60000**	**90000**

Each of these two products is sold on a seasonal basis. Kishan plans to sell product A throughout the year at a price of Rs.10 a unit and product B at a price of Rs.20 a unit.

A study of the past experience reveals that Kishan has lost about 3% of its billed revenue each year, because of returns (constituting 2% of Loss of revenue) allowances and bad debts (1% loss).

Prepare a Sales budget incorporating the above information.

Solution:

Sales Budget of Ram Lal and Co

	I^st Quarter	II^nd Quarter	III^rd Quarter	IV^th Quarter	Total
Product A	900000	2500000	3000000	800000	7200000
Product B	1600000	1500000	1200000	1800000	6100000
Total	2500000	4000000	4200000	2600000	13300000
Less: Deductions					
Returns	50000	80000	84000	52000	266000
Allowances and Bad debt	25000	40000	42000	26000	133000
Total Deductions	75000	120000	126000	78000	399000
Net Sales (Sales – Total deductions)	2425000	3880000	4074000	2522000	12901000

****

LET'S SUM UP

- Dear Students, we understanding the cash budget definition and how it works can help businesses to understand their importance. Cash budgets can be helpful in the financial planning process to determine if expenses are met or if funds must be borrowed and to measure liquidity. In general, the cash budget allows a business to ensure it can afford to cover its expenses. It provides insight as to how excess amounts may be allocated for use in other areas of the business, such as improvements in production or marketing techniques.

GLOSSARY

Steps involved in developing a Flexible Budget	- Deciding the range of activity to which the budget is to be prepared. - Determining the cost behaviour patterns (fixed, variable, semi-variable) for each element of cost to be included in the budget.
Cash Budget	- The cash budget is a summary of the firm's expected cash inflows and outflows over a particular period of time. - The cash budget consists of two parts: 1. The projected cash receipts (Inflows) and; 2. The planned cash disbursements (Outflows).
Purposes of the Cash Budget	- To indicate the probable cash position as a result of planned operations. - To indicate cash excess or shortages. - To indicate the need for borrowing or the availability of idle cash for investment.
Management Action and Cost Control	- Producing information in management accounting form is expensive in terms of the time and effort involved. It will be very wasteful if the information once produced is not put into effective use.

CHECK YOUR PROGRESS

1. Sales Budget prepared by whom?

a) Production Manager	b) Sales Manager	c) Managing Director	d) None of the Above

2. Which of the following are Subsidiary of Production Budget?

a) Raw Material Budget	b) Labour cost Budget	c) Manufacturing Overhead Budget	d) All of the Above

3. Usually the production budget is stated in terms of ___________

a) Value	b) Quantity	c) Both of the Above	d) None of the Above

4. Which one of the following is not needed in preparing a production budget?

a) Opening Stock	b) Sales	c) Closing Stock	d) None of the Above

5. Which Budget is the first step of Budgetary system and all other budget depends on it?

a) Cash Budget	b) Production Budget	c) Sales Budget	d) Master Budget

****

MODULE – 5
(ZERO BASE BUDGETING)

INTRODUCTION

The need for an effective budget procedure is increasingly apparent in business and institutions in the face of spiraling operating costs and declining growth rates. The traditional budgetary control system has not measured up to the tough decision making required because they assume that the ongoing projects and activities making up the historical budget base are sacred and essential to the mission of the company.

They are being performed in an optimal manner and deserve automatic grant. This has little regard for programmatic priorities and results. The introduction of Zero-base budgeting (ZBB) aims to overcome this drawback by subjecting all activities and expenditures, current as well as new, to intensive analysis to justify every rupee spent for realizing current corporate goals.

However, the important features in ZBB are as follows:

- Concentration of efforts is not simply on ‘’how much’’ a unit will spend but ‘’why’’ it will spend it.
- Choices are made on the basis of what each unit can offer for a specific cost.
- Individual unit objectives are linked to cooperate objectives.
- Quick budget adjustments can be made if, during the opening year cuts are required to maintain expenditure levels.
- Alternative ways are considered.
- Participation of all levels in decision making process.

APPLICATION OF ZBB

ZBB is very useful where 'cost analysis' is taken into consideration. Normally, the ZBB is applicable to those budgets which are not involved with direct costs only, because, direct costs (e.g. Direct Material and Direct Labour) may be controlled by the normal prediction operation since it assumes that each element of direct cost has been monitored and adjusted with production. That is why, ZBB is applicable to those budgets which involve overheads (e.g. Administration, Selling and Distribution Overhead) i.e., it is more applicable to discretionary cost areas. It is indirect that ZBB is relevant where a budgeting system which has already been Introduced, It requires managers at the same time to develop qualitative measures.

- Introduction of ZBB system is no doubt expensive and time consuming
- It supplies the firm a systematic way in order to evaluate different
- It helps the management to know different departmental budgets on the basis

- ZBB also invites ranking process problems. It includes (a) Who will do the
- It is most appropriate both for the staff and supported areas of an organization
- It also helps to locate the areas of wasteful expenditure, if any, and as such,
- Since ZBB requires significant support from the top management level which

DIFFERENCES BETWEEN TRADITIONAL BUDGETING AND ZERO-BASE BUDGETING

- Traditional Budgeting works on cost accounting principles, thereby, it is more accounting oriented. Whereas zero-based budgeting is decision-oriented.
- In traditional budgeting, justification of the line items and expenses are not at all required. On the other hand, in zero-based budgeting, proper justification is required, considering the cost and benefit.
- In traditional budgeting, the top management takes decisions regarding any amount that will be spent on a particular product. In contrast, in zero-based budgeting, the decision regarding spending a specific sum on a particular product is on the managers.
- Zero-based budgeting is better than traditional budgeting when it comes to clarity and responsiveness.
- Traditional budgeting follows a repetitive approach. On the contrary, zero- based budgeting follows a straight forward approach.

5.4 PERFORMANCE BUDGETING

- In the conventional system of budgeting money value is more dominant than the performance. In the present scenario budgets are established based on the standards so that each item of expenditure is related to specific responsibility center & closely associate with the performance of that standard. Whenever standards are fixed automatically it led to measure the performance and follow up the measures Under this situation the establishment of performance budgeting is developed.
- According to the National Institute of Bank management Mumbai, performance budgeting technique is the process of analyzing, identifying, and simplifying and crystallizing specific performance objectives of a job to be achieved over a period in the framework of the organizational objectives. The technique is characterized by its specific direction towards the business objectives of the organization.
- Performance budgeting simply says it is a budget which relate to measure and appraisal of performance as well as follow up actions. Performance budgeting involves the following,
    - Establishing performance criteria for various programmes

- Measuring the performance of each programme and also identifying the responsibility unit
- Comparison of the actual performance with the predetermined objective
- Initiating periodic review of the programme with suitable modifications.

LET'S SUM UP

- Dear Students, we learn about the Zero-based budget. Its targets at presenting true expenses to be incurred by a department. Although this budgeting method is time-consuming, this is a more appropriate way of budgeting. This includes an all-inclusive analysis of the budget proposal and if the managers make irrelevant variations so as to achieve what they want, they are probably exposed.

GLOSSARY

Introduction	• The need for an effective budget procedure is increasingly apparent in business and institutions in the face of spiraling operating costs and declining growth rates
Application of ZBB	• ZBB is very useful where 'cost analysis' is taken into consideration. • It requires managers at the same time to develop qualitative measures. 1. Introduction of ZBB system is no doubt expensive and time consuming 2. It supplies the firm a systematic way in order to evaluate different
Differences between Traditional Budgeting and Zero-Base Budgeting	• Traditional Budgeting works on cost accounting principles, thereby, it is more accounting oriented. Whereas zero-based budgeting is decision-oriented. • In traditional budgeting, justification of the line items and expenses are not at all required. On the other hand, in zero-based budgeting, proper justification is required, considering the cost and benefit.
Performance Budgeting	• In the conventional system of budgeting money value is more dominant than the performance. In the present scenario budgets are established based on the standards

	so that each item of expenditure is related to specific responsibility center & closely associate with the performance of that standard.

CHECK YOUR PROGRESS

1. Budgetary control facilitates easy introduction of the

a. Marginal Costing	b. Ratio Analysis	c. Standard Costing	d. Subjective matter

2. Budgetary control helps the management in……

a. Obtaining Bank Credit	b. Issue of Shares	c. Getting grants from government	d. All of these

3. Budgetary control system helps the management to eliminate…..

a. Undercapitalization	b. overcapitalization	c. Both	d. Subjective matter

4. Budgetary control provides a basis for

a. Bonus Shares	b. Right Shares	c. Remuneration Plans	d. None

5. Frequent Revision of Budget will

a. Affects its reliability	b. Increase the accuracy	c. Both	d. Subjective matter

****

UNIT SUMMARY

- Dear Learners, Budgeting is a multipurpose tool, but is has two main purposes: budgetary planning and budgetary control. In manufacturing organization is the process of budget setting starts with the sales budget.
- Production budget follows which, in turn, necessitates budget for materials, direct Labour, and overheads. It becomes a governing document, and virtually a forecasted profit and loss account.
- Best budgets are the ones which are prepared on standard costs. To be meaningful, budgets have to be flexible rather than static.
- A flexible budget is prepared for several levels of activity. The two approaches followed in the preparation of flexible budgets are: formula method, and the multiple-activity method.

- A few noteworthy recent trends in budgeting are towards zero-base budgeting and performance budgeting.
- The former denotes an operating, planning and budgeting process which requires each manager to justify his entire budget in detail from scratch.
- The latter refers to a budget which specifies outputs or results to be achieved along with the inputs or expenditures to be incurred during the budget period.

ANSWERS FOR CHECK YOUR PROGRESS:

Module -1

1. C	**2. B**	**3. A**	**4. C**	**5. A**

Module -2

1. D	**2. D**	**3. D**	**4. C**	**5. C**

Module -3

1. B	**2. A**	**3. D**	**4. D**	**5. A**

Module -4

1. B	**2. D**	**3. C**	**4. D**	**5. C**

Module -5

1. C	**2. A**	**3. C**	**4. C**	**5. A**

SELF-ASSESSMENT QUESTIONS

Short Answers.

1. What is meaning of budget?
2. What is budgetary control? State budgetary control.
3. Describe the Advantages of budgetary control?
4. Elucidate the Characteristics of Budget?
5. Why Budget is Need?
6. Describe the Nature of Transactions?
7. How many activity levels are there in budget?
8. What is the classification of budget according to time?
9. Discuss the details of types in budget?
10. Explain the functional classification of budget?

Essay Type Answers:

11. What are the Steps involved in developing a Flexible Budget?
12. Describe the Purpose of Fixed Budgets.
13. Differentiate between Flexible budget and Fixed Budget.
14. Discuss the purpose of Flexible Budgets.
15. How the fixed budget was prepared? Discuss.
16. What are the Steps involved in developing a Flexible Budget?
17. Describe the Purpose of Fixed Budgets.
18. Differentiate between Flexible budget and Fixed Budget.
19. Discuss the purpose of Flexible Budgets.
20. How the fixed budget was prepared? Discuss.

ACTIVITIES / EXCERCISES

Exercise: 1

What are the key components of budgetary control?

Exercise: 2

What are the Five principles of budgetary control?

EXCERCISES

Problem:1

The sales director of a Narmada Manufacturing Company reports that next year he expects to sell 50,000 units of a particular product.

The production manager consults the storekeeper and casts his figures as follows Two kinds of raw materials A and B are required for manufacturing the product. Each unit of the product requires 2 units of A and 3 units of B. The estimated opening balances at the commencement of the next year are

Finished products 10,000 units

Raw materials A 12,000 units, B 15,000 units

The desirable closing balances at the end of the next are finished products: 14,000units; A. 13,000 units, B 16,000 units

Draw up a quantitative chart showing materials purchase budget for the next year.

Problem: 2

You are requested to prepare sales overhead budget from the estimation given below

Advertisement	2,500
Salaries of Sales Department	5,000
Expenses of Sales Department	1,500
Counter Salesman's salaries and dearness allowance	6,000

Commission to counter salesman at 1% on their sales

Travelling salesmen's commission at 10% on their sales and expenses at 5% on their sales .

The sales during the period were estimated as follow

Counter Sales Rs.	Travelling Salesman's Rs.
80,000	10,000
1,20,000	15,000
1,40,000	20,000

******** UNIT IV COMPLETED *********

UNIT- V

COST ACCOUNTING

COST ACCOUNTING

Cost Accounting: Meaning – Objectives - Elements of Cost - Cost sheet (Problem) - classification of cost - Cost Unit and Cost Centre – Methods of Costing-Techniques of Costing. Standard costing and Variance analysis Reporting to Management - Uses of Accounting information in Managerial Decision Making. Reporting - Accounting Standards and Accounting Disclosure practices in India; Exposure to Practical Knowledge of using Accounting Software Open Source.

UNIT MODULE STRUCTURING

1. Cost Accounting
2. Standard Costing
3. Managerial Decision
4. Reporting
5. Problems

UNIT OBJECTIVES

- To Learn the Cost Accounting with the Business-related problems.
- To analysis the Standard and variance costing.
- To understand the information in Managerial Decision Making.
- To develop their ideas in Disclosure practices in India.
- To enhance their knowledge accounting software.

CONCEPT OF COST ACCOUNTING

Cost

- The term cost is very often used in day to day activities. The cost is the amount of resources given up in exchange for some goods or services.
- American Institute of Certified Public Accountants defined cost as expanded or other property transferred, capital, stock issued, services performed or liability incurred in consideration of goods or services received or to be received.

Costing

- Costing may be referred "as classifying, recording and appropriate allocation of expenditure for the determination of costs of products or services".

Definition

- The Institute of Cost and Works Accountants (ICWA) (UK) defines cost accounting as "the process of accounting for cost from the point at which expenditure is incurred or committed to the establishment of its ultimate relationship with cost centres and cost units". In its widest usage, it embraces the preparation of statistical data, the application of cost control methods and the ascertainment of the profitability of activities carried out or planned.
- According to Wheldon "cost accounting is the application of accounting and costing principle methods are techniques in the ascertainment of costs and the analysis of saving of excess cost incurred as compared with previous experience or with standards".
- Cost Accountancy is the application of costing and cost accounting principles, methods and techniques to the science, art and practice of cost control and the ascertainment of profitability.

OBJECTIVES OF COST ACCOUNTING

Cost Accountancy is the application of costing and cost accounting principles, methods and techniques to the science, art and practice of cost control and the ascertainment of profitability.

- It enables the management to ascertain the unit cost of product, service, job or department, and also to estimate the profit or loss of each operation.
- To guide the management on future expansion programmes and proposed capital projects.
- To provide necessary guidance to fix the accurate selling price of the product.
- To co-ordinate cost reduction programme along with the different departmental heads.
- To assist the management in preparing Budgets and necessary steps which are to be taken for the implementation of budgeting control.
- To collect and supply relevant data to the management for taking important financial decisions.
- To interpret and present data to the management for planning, evaluation of performance and control.
- To provide specialised services of cost audit.
- To assist the management in the future production policies.

ADVANTAGES OF COST ACCOUNTING

- To disclose the profitable and unprofitable activities of the organisation.
- It supplies information upon which estimates and tenders are based.
- To facilitate the introduction of suitable plans of wage payment to reward efficiency and to provide adequate incentive to the less efficient workers.
- Helpful to the Government.
- Installation of Costing System will strengthen confidence in the minds of the public about the fairness of the prices charged
- Cost accounting allows for data that enables the firm to measure efficiency.
- This could be efficiencies with respect to cost, time, expenses etc.

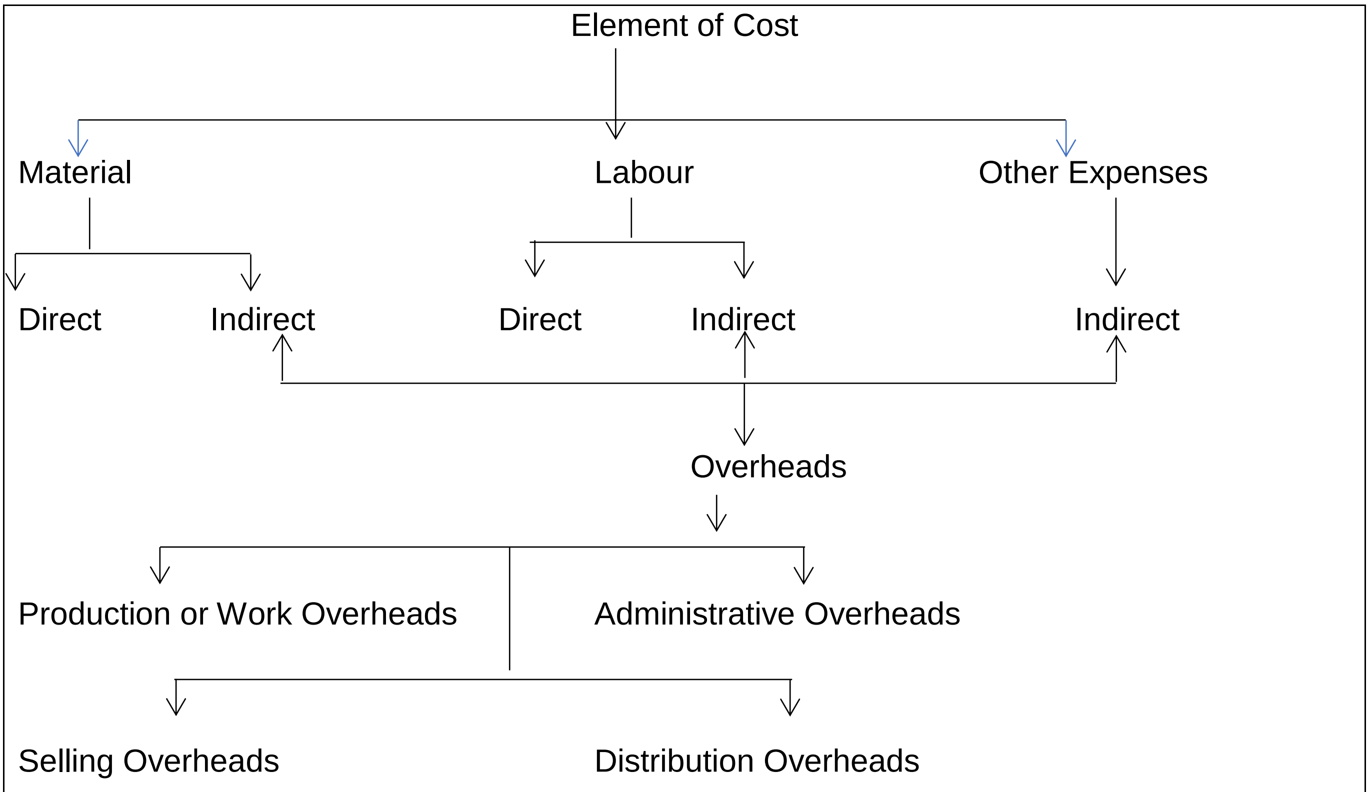
LIMITATIONS OF COST ACCOUNTING

The following are the main limitations of cost accounting:

- It is Expensive. The installation of costing system in the industry requires huge amount of capital. Because, double set of account books has to be maintained and at the same time it requires the persons who have specialised knowledge in costing. They require higher amount of salary and other benefits.
- Failure of Costing System. Cost accounting system has failed to bring expected results in many cases. Under this background, it is treated as a defective system. However, it is not a faulty system.
- It Ignores a Uniform Procedure. In the practical sense of cost accounting in a particular situation, two competent cost accountants may arrive at different results from the same information. Because of this, we can say, there is no uniform procedure for cost accounting.
- Matter of Routine Forms and Statements. Sending of costing information to the management requires large number of forms and statements. Simply says, introduction of costing system involves additional and unnecessary paper work.

It is an Unnecessary Application. Cost Accounting is only recently developed and installed in many industries. They have been progressing tremendously. And at the same time, some of the organisations can successfully run without the applications of cost accounting.

ELEMENT OF COST



COST SHEET

- The expenditure, which has been incurred upon production for a person is extracted from the financial books, and stores records, and set out in a memorandum of a statement. If this statement is confined to the disclosure of the cost of the units product during the period, it is termed as cost sheet".

Details about the various Overheads

- Factory Overheads
- Wages of Foremen
- Factory Lighting
- Consumable Stores
- Lubricants
- Electric Power
- Oil and Water
- Factory Manager's Salary
- Time Keeper's Salary
- Material Transportation Expenses
- Factory Rent, Factory Lighting, Employees State Insurance Contribution, Depreciation Factory Plant

- Electric Power
- Heat and Lighting
- Insurance and Taxes
- Miscellaneous Expenses - Factory
- Plant maintenance - Stationery in Factory

(ii) Administrative Overheads

- Office Rent
- Bank Charges
- Telephone Charges
- Salaries of Office Staff
- Repairs and Renewals - Office
- Depreciation on Office Building
- Manager's Salary
- Director's Fees
- Office Stationery
- Postage and Telegrams outlets Insurance
- Lighting of the Office
- Rates and Taxes

(iii) Selling and Distribution Overheads

- Expenses on Packing Materials
- Salaries of Sales Staff
- Sales Manager's Salary
- Carriage Outward
- Travelling Expenses
- Advertising
- Delivery Van Expenses
- Go down Rent
- Distribution Department - Salaries and Expenses
- Sales Commission
- Sales Promotion

SIMPLIFIED FORM OF COST

Particulars	Total cost	Cost per Unit
Direct Material Direct Labour	xx xx	xx xx
Prime Cost Add : Works Overhead or Factory Overhead	xx xx	xx xx
Works Cost Add : Administrative Overhead	xx xx	xx xx
Cost of Production Add : Selling and Distribution Overheads	xx xx	xx xx
Total Cost or Cost of Sales Add : Profit	xx xx	xx xx
Sales	xx	xx

Cost Centre

- A cost centre is a department or function within an organization that does not directly add to profit but still costs the organization money to operate. Cost centres only contribute to a company's profitability indirectly, unlike a profit centre which contributes to profitability directly through its actions.
- Managers of cost centre, such as human resources and accounting departments are responsible for keeping their cost in line or below budget.

Advantages of Job order costing

- It enables the organisation to find which jobs are more profitable and those which are unprofitable.
- It helps the management to determine the operating efficiency of the various factors of production and some of the functional units.
- It helps in determining the cost of the similar jobs taken up in future and thus helps in the formulations of future production planning.
- Accurate identification of wastage, spoilage and defectives with respects to the production orders may assist the management to take effective steps in reducing these to minimum extent.
- By employing predetermine overhead rates in jobs costing, all the advantages of budgetary control can be obtained.
- Limitations

- Cost comparison among different jobs becomes difficult or meaningless because there may be major economic changes.
- Job costing is a historical costing in nature, so it may not be useful for the future planning and control.
- Job costing system cannot be operated effectively without having a sound production control system.
- Job costing is expensive
- It requires more clerical work for cost collection of each job.

Batch Costing

- Batch costing is forming a part of job costing batch costing is done when production consists of a certain specified number of articles or production involves limited repetition work.
- Normally under the job costing, production is carried out on the basis of specified orders. The total of batch cost can be found out by totalling each order numbers. The cost of production per unit can be ascertained by dividing the total cost by total batch quantity.

Process costing

- To find out the cost of each process in an easy manner without any difficulty and of the final product at short intervals
- To find out the cost in simple and economical ways than job costing.
- To adopt the standard costing principles effectively in process costing.
- Appropriate allocation of the expenses can be made easily and the costs in each process accurately determined.
- Enables to determine the correct valuation of closing inventories.

LET'S SUM UP

- Costing is a specialised branch of accounting which is responsible for the ascertainment and control of costs of goods produced and the services provided by the business. Its need arose because of the limitations of the financial accounting and the complexities of managing a modern enterprise.
- Cost Accounting refers to the principles, methods and techniques used for the Nature and Scope ascertainment and control of costs as well as the presentation of information for managerial decision-making.
- Its main objects are
- (i) ascertainment of costs,

- (ii) fixation of prices,
- (iii) control of costs, and
- (iv) providing cost data for managerial use.
- Cost Accounting differs from Financial Accounting in respects of
- (i) the interests it serves,
- (ii) the objectives to be achieved,
- (iii) analysis of cost and profit,
- (iv) mode of presenting information, and
- (v) the periodicity of reporting.
- For installation of a costing system in any organisation, it must be ensured that
- (i) it suits the nature of the business,
- (ii) it is simple to understand and easy to operate,
- (iii) it is introduced gradually,
- (iv) it provides the necessary information promptly and regularly,
- (v) it is economical, and
- (vi) it is flexible.

CHECK YOUR PROGRESS

1. In automobile, …………………costing is used

a). Process	b) batch	c) multiple	d) job

2. Cost accounts deal partly with facts and figures and partly with………

a) Estimates	b) costs	c) income	d) revenue

3. Cost accounting provides data for managerial……………. ___________.

a) Decision making	b) recruitment	c) retrenchment	d)) none of the above.

4. Cost accounting is based on……………….figures.

a) Estimated	b) historical	c) actual	d)None of the above

5. Period costs charged to……………….

a) cost of production	b) Products	c) Period ends	d) none of these

****

MODULE – 2
(STANDARD COSTING)

CONCEPT STANDARD COSTING

- The institute of cost and management Accountants, England defines standard cost is "a predetermined cost which is calculated from management's standard of efficient operation and the relevant necessary expenditure"
- The Institute of Cost and Management Accountants, England defines standard costing as "the preparation and use of standard costs and the analysis of variances of their causes and the points of incidence".

ADVANTAGES OF STANDARD COSTING

- It guides the management in formulating price and production policy.
- It facilitates the reduction in clerical and accounting cost and management time.
- It helps to generate profit at higher level, through the comparison of actual cost to the standard costs. If any of the differences are identified, the corrective actions are taken immediately.
- Standard costing enables management to exercise effective control over production activities, helping them make decisions regarding the various elements of cost (e.g., materials purchases and wages).
- The principle of management by exception can be made applicable in the business for concentrating its attention on below or above the standards set.
- It helps in effective application of delegation of authority and responsibility. As a result, executives become more responsible as it clearly shows who is responsible for the cost centres.
- Standard costing helps managers to estimate the costs of new products accurately, which can lead to significant cost reductions.
- It creates an atmosphere of cost consciousness among the executives, workers and foremen because the variance analysis fixes responsibility for favourable or unfavourable performances.
- Standard costing is economical and needs less attention from management and executives compared to other approaches.
- It facilitates timely cost reports to management and a forward looking aspect is encouraged at all levels of management.

LIMITATIONS OF STANDARD COSTING

- Standard costing is an expensive technique for a small level organisation.
- Management should not think that the job is done after determining standard costs once. These standards must be revised from time to time due to changes in technology, marketing conditions, and consumer habits.
- Distinction may not be always possible between controllable and uncontrollable variances, because of responsibility to a particular person or process becomes very difficult.
- The effective utilisation of variances analysis depends mostly on the basis of standards set. And at the same time, setting of correct standards is also very difficult.
- Standard costing is not suitable for the industries which produce non-standardized products.
- In the real sense, whenever the organisation fixes the standards, it should affect the freedom of the managers. So, they strongly oppose this system.
- Standard costing is a viable option only when budgetary techniques are used

Determination of Standards Costs

- The following preliminary steps are to be considered before setting standards for different elements of costs:
- Establishment of cost centre
- Classification and codification of accounts
- Types of standards or period of use
- Setting the standards

Establishment of Cost Centre

- Setting of cost centres is the very first step required before setting of standards. According to The Chartered Institute of Management Accountants, London cost centre is defined as "a location, person or item of equipment (or group of these) for which cost may be ascertained and used for the purpose of cost control". When the organisation establishes the cost centre, the standards are fixed and the variances are analysed. Cost centre is necessary because fixing of responsibility and defining the lines of authority easier.

Classification and Codification of Accounts

- In a business organisation various kind of expenses are incurred. However, the actual expenses are classified under suitable heads for the purpose of establishment of codes and symbols. Coding is useful for speedy collection, analysis of cost information and mechanical devices.

Period of Use

- After the classifying and coding of accounts, the next step for the establishment of standard cost is the length of the operating period for which standards are to be used. The different types of standards are normally considered while determining the standards.
    - **Basic Standards:** ICMA, London defines basic standard as "an underlying standard from which a current standard can be developed". Basic standard is set up for base year and is not changed as material prices and labour rate change.
    - **Ideal Standard**: Ideal standard is set up under ideal conditions. ICMA defines it as "the standard which can be attained under the most favourable condition possible". It indicates the higher level efficiency of the manufacturing process in the organisation.
    - **Current Standard:** ICMA, London, defines it as "a standard which is established for use over a short period of time and is related to current conditions". Current standard is a short term standard as it is modified at regular intervals.
    - **Expected Standard**: Expected standard is otherwise termed as practical standard. ICMA defines the expected standard as "the standard which is anticipated, can be attained during a future specified budget period". Whenever the organisation is setting this type of standards, due weightage is given for all the expected conditions.
    - **Activity Level:** The quantum of output or the level of activity to be obtained in forthcoming period must be divided clearly before establishing any standards. In this regard the sales potential and production capacity decide the quantum of output to be manufactured within a specified future period. Any of the idle capacity, unutilised capacity, and other key factors should be considered before determining the attainable level of output.
    - **Organisation for Standard Costing:** For the purpose of achieving successful standard costing system, the organisation should appoint a separate committee.

The committee consists of marketing manager, production manager, purchase manager, human resource manager, chief engineer and cost accountant. The committee may supply all information to different departments. They may revise the standards if necessary and finally approve the standards according to the current price level of the economy.

Setting of Standards

- After approval of the standards from the committee, the standard cost is determined for each and every element of cost such as direct material, direct labour and overheads. Cost account act as a coordinator of these activities and also he ensures that the setting of standards is accurate.

VARIANCE ANALYSIS

- Variance means difference. The term variance has been derived from the verb to vary meaning to differ. ICWA, London defines variance as "difference between a standard cost and the comparable actual cost incurred during a period".
- Simply variance analysis is the process of examining the variances by sub dividing the total variance. Through this way, the organisation can fix responsibility for off-standard performance.

Computation of Variances

- Normally, the following are the common variances which are computed by the management.
  - **Material variances**
  - **Labour variances**
  - **Overhead variances**
  - **Sales variances**

a) Material Variances

- MCV = (SQ X SP) – (AQ X AP)
- MPV = (SP – AP) X AQ
- MUV or MQV= (SQ - AQ) X SP
- MMV = (RSG - AQ) X SP
- MYV or MSUV = (SQ - RSQ) X SP
- RSQ = $\frac{\textit{Individual of SQ}}{\textit{Total of SQ}}$ x Total of AQ

Abbreviations used:

- MCV: Material Cost Variance.
- MPV: Material Price Variance
- MUV OR MQV:Material Usage Variance or Material Quantity Variance
- MMV :Material Mix Variances
- MYV :Material Yield Variance.
- MSUV: Material Sub Usage Variance

(b) Labour Variances

- Labour cost variance = (SH x SR) - (AH x AR)
- Labour rate variance = (SR - AR) x AH
- Labour efficiency variance = (SH- AH) x SR
- Labour mix variance = (RSHAH) x SR
- RSH=$\frac{\textbf{Individual of SH}}{\boldsymbol{Total\ of\ SH}}$ x Total of AH
- Labour sub efficiency variance
- or Labour yield variance = (SH-RSH) x SR

Abbreviations used:

- SH : Standard Hours
- AH: Actual Hours
- SR :Standard Rate
- AR :Actual Rate

c) Overhead Variances

Under the overhead variances the following variances are normally applied.

- **Overhead Cost Variance**

  Standard cost of actual output - Actual cost.

  Standard cost of actual output = $\frac{\textbf{SC x AO}}{\boldsymbol{SO}}$

- **Overhead Budget or Expenditure Variance**

  Standard cost- Actual cost

- **Overhead Volume Variance**

  (Actual output - Std output) x Std rate per unit.

- **Overhead Efficiency Variance**

  (Actual output - Std output in actual hours worked) x Std rate per unit.

  Standard output in actual hours

  Worked = (Standard output x Actual hours)/(Standard Hours)

- **Overhead Capacity Variances**

  (Standard output in actual hours worked - Std output) x Std rate per unit.
- **Overhead Calendar Variance** (If number of days given in the problem only)

  (Std output in actual days worked - Std output) x SR per unit.

  Standard output in Actual days=(SO X A days)/(S days)

d) Sales Variances

- **Sales value variance** : (AQ X AP) – (SQ X SP)
- **Sales price variance** : (AP - SP) X AQ
- **Sales volume variance** : (AQ - SQ) x SP
- **Sales mix variance** : (AQ - RSQ) x SP
- **Sales sub volume variance** : (RSQ - SQ) x SP

Abbreviations Used:

- **AQ : Actual Quantity**
- **SQ : Standard Quantity**
- **AP : Actual Price**
- **SP : Standard Price**
- **RSQ : Revised Standard Quantity**

$$\textbf{RSQ} = \frac{SQ}{Total\ SQ} \textbf{ x Total AQ}$$

LET US SUM UP

- Standard Costs are predetermined cost which may be used as a yardstick to measure the efficiency with which actual costs has been incurred under given circumstances. In other words, standard costs are predetermined costs which aims at what the cost should be rather than what it will be. Estimates are predetermined costs which are based on historical data. Both the standard costs and estimated costs are used to determine price in advance and then purpose is to control cost. There are certain differences between standard cost and estimated cost.
- Standard costing is a technique used for the purpose of determining standard cost and their comparison with the actual costs to find out the causes of difference between the two so that remedial action may be taken immediately. The objectives of standard costing are: Cost control, developing cost consciousness among the employees, formulating production and pricing policies, budget planning, etc. promptly and regularly, (v) it is economical, and (vi) it is flexible.

CHECK YOUR PROGRESS			
1.The ascertaining of costs after they are incurred is known as _____			
a) Historical costing	b) Notional costing	c) Marginal costing	d) Sunk cost
2.Which of the following is not a part of the cost accounting concept?			
a) Product costing	b) Profit sharing	c) Controlling	d) Planning
3.The ascertaining of costs after they are incurred is known as _____.			
a) Historical costing	b) Notional costing	c) Marginal costing	d) Sunk cost
4.The loss that arises in manufacturing due to the nature of a product is known as ______.			
a) Abnormal loss	b) Net loss	c) Normal loss	d) None of the above
5.The discarded materials that have zero value are called _______.			
a) Scrap	b) Waste	c) Spoilage	d) None of the above

****

MODULE – 3
(MANAGERIAL DECISION MAKING)

MANAGERIAL DECISION MAKING

Definition

- Managerial accounting can be used in short-term and long-term decisions involving the financial health of a company. Managerial accounting helps managers make operational decisions–intended to help increase the company's operational efficiency–which also helps in making long-term investment decisions.
- Forecasting, monitoring, and tracking performance is a critical aspect of managerial accounting to ensure actual results meet the budgets and forecasts outlined at the onset
- Managerial decision-making is a process aimed at resolving identified problems and enabling effective and efficient performance of business activities. It is a cognitive process of making choice between more options, based on available information, knowledge, experience and beliefs of decision-makers.

Managerial Decision Making Process

- The managerial decision-making process typically involves several steps. Here's an overview of the key stages:

❖ **Identification of the Problem or Opportunity**

- The process begins with recognizing a problem that needs to be addressed or an opportunity that can be pursued. This may involve feedback from various sources, such as employees, customers, or market trends.

❖ **Data Collection and Information Gathering:**

- Managers collect relevant data and information to better understand the situation. This can involve quantitative and qualitative data, internal and external sources, and historical or real-time data.

❖ **Problem Analysis:**

- Managers analyze the data to gain insights into the root causes of the problem or the potential of the opportunity. This step often involves using various analytical tools and techniques.

❖ **Generation of Alternatives:**

- Based on the analysis, managers generate a set of possible solutions or courses of action. This can include brainstorming and seeking input from others in the organization.

❖ **Evaluation of Alternatives:**

- Each alternative is assessed in terms of its feasibility, cost, potential benefits, and alignment with organizational goals. Decision criteria are established to weigh the pros and cons of each option.

- **Decision Making:**
  - Managers choose the best alternative based on the evaluation criteria. This is a critical step that may involve consensus-building, authority delegation, or group decision-making.
- **Implementation:**
  - The chosen decision is put into action. This step involves planning, organizing resources, and executing the chosen course of action.
- **Monitoring and Evaluation:**
  - After implementation, managers continually assess the results to ensure that the decision is achieving its intended objectives. Adjustments may be made if necessary.
- **Feedback and Learning:**
  - Lessons learned from the decision-making process are used to improve future decision-making processes. This feedback loop helps in organizational learning and adaptation.
- **Communication:**
  - Throughout the process, effective communication with relevant stakeholders is essential to ensure understanding and support for the decision.
  - It's important to note that the decision-making process can vary in complexity and time frame depending on the nature of the problem or opportunity. Additionally, the involvement of different levels of management and cross-functional teams can influence how decisions are made within an organization.

PRINCIPLES OF MANAGERIAL DECISION MAKING

The principles of managerial decision making typically involve several key elements, including:

- **Define the Problem:**
  - Clearly identify the issue or challenge that requires a decision. This step is crucial for understanding the context and setting the stage for decision making**.**Gather Information:
  - Collect relevant data and information to assess the situation. This may involve market research, financial analysis, or input from various stakeholders.
- **Generate Alternatives:**

- Consider multiple options or courses of action. This can involve brainstorming, consulting with experts, or exploring different scenarios.

- **Evaluate Alternatives:**
  - Assess the pros and cons of each alternative. Use criteria and prioritize factors that are most important to the organization's goals and objectives.
- **Make a Decision:**
  - Choose the best alternative based on the evaluation. The decision-maker should be informed, rational, and aligned with the organization's values and goals.
- **Implement the Decision:**
  - Develop a plan for executing the chosen alternative. Allocate resources, assign responsibilities, and set a timeline for implementation.
- **Monitor and Adjust:**
  - Continuously monitor the results of the decision and be prepared to make adjustments if necessary. Feedback and performance metrics are essential in this stage.
- **Learn from the Process:**
  - Reflect on the decision-making process and outcomes to gain insights for future decisions. Learning from both successful and unsuccessful decisions is critical for improvement.

These principles help managers make effective and informed decisions that contribute to the success of their organizations.

ADVANTAGES OF MANAGERIAL DECISION

Managerial decision making has several advantages, including:

- **Efficient Resource Allocation:**
  - Managers make decisions about how to allocate resources such as time, money, and manpower to achieve organizational goals effectively.
- **Goal Achievement:**
  - Good decision making helps organizations achieve their objectives and mission by setting the right direction and priorities.
- **Problem Solving:**
  - Managers make decisions to address and solve problems, which can lead to improved operations and increased efficiency.
- **Risk Management:**

- Decision making involves assessing risks and making informed choices to mitigate them, reducing the potential for negative outcomes.

❖ **Adaptability:**

- Managers can make quick decisions in response to changing market conditions or unforeseen circumstances, helping the organization stay competitive.

❖ **Innovation:**

- Managers can foster innovation by making decisions that encourage creativity and new approaches to problem-solving.

❖ **Accountability:**

- Decision making helps establish clear lines of responsibility and accountability within an organization.

❖ **Employee Engagement:**

- Involving employees in decision-making processes can boost morale, motivation, and job satisfaction.

❖ **Data-Driven:**

- Managers can use data and analytics to make informed decisions, leading to better outcomes.

❖ **Competitive Advantage:**

- Effective decision making can give an organization a competitive edge by responding to market trends and customer needs.
- Overall, managerial decision making is essential for the success and sustainability of any organization.

LET US SUM UP

- In this unit, we have tried to assess the dynamics of decision making. Decision making is a complex process which involves all the skills learnt by you, having gone through the inputs given in this course.
- In this unit we have basically talked about the process of decision making, the decision and its fall outs. All these stages have bearing on each other and are the part of a circle. Towards the end of the unit we have also tried to generate the check-list for effective decision making. We have tried to critically evaluate the pros and cons of the individual and the' group decision making.
- We have concluded this unit with the essential values to be observed while taking a decision and also have developed the guidelines for effective decision making. The

activities provided in this unit are particularly very important as they will require application of the knowledge and skills earned out of the unit's content.

- The activities have been basically drawn out of the day to day experiences in the organisational set up. Hence you should be very particular in attending the activities. There is also another purpose in keeping this unit as the last one, as now on when you take up the cases, at each and every step you would be confronted either by yourself in taking a particular decision or by the decision made by any character in the cases.
- Sometimes you will also be faced with dilemma of taking one or the other decision.
- At this juncture you will be rescued by the skills and knowledge gained through this unit.

CHECK YOUR PROGRESS

1.What are characteristics of a programmed decision?			
a) Incomplete information	b) Uncertain and non-routine	c) Low risk and certain	d) Routine and non-complex
2 What is not an assumption underpinning the rational decision-making model?			
a) Incomplete information	b) An agreed goal	c) A structured problem	d) High level of certainty regarding the environment
3. Simon (1960) is associated with what type of decision-making model?			
a) Rational	b) Classical	c) Programmed	d) Administrative
4 What is the term for decisions limited by human capacity to absorb and analyse information?			
a) Cognitive rationality	b) Conscious rationality	c) Bounded rationality	d) Restricted rationality
5 What is the term for a sub-optimal but acceptable outcome of negotiations between parties?			
a) Bargaining	b) Satisficing	c) Accepting	d) Compromising

****

MODULE – 4
(PROBLEMS)

Problem 1.

From the following information compute material variances:

		Standard			Actual	
		Qty	CPU	Tot	Qty	CPU	TC
Material	A	10	2	20	5	3	15
	B	20	3	60	10	6	60
	C	20	6	120	15	5	75
		50		200	30		150

Solution :

(i) MCV : (SQ x SP) – (AQ x AP)

Material	A	(10 x 2) – (5 x 3)	=	5	(F)
	B	(20 x 3) – (10 x 6)	=	0	
	C	(20 x 6) – (15 x 5)	=	45	(F)

				50	(F)
				======	

(ii) Material Price Variances : (SP – AP) x AQ

A	(2 – 3) x 5	=	5	(A)
B	(3 – 6) x 10	=	30	(A)
C	(6 – 5) x 15	=	15	(F)

			20	(A)
			======	

(iii) Material Usage Variances : (SQ – AQ) x SP

A	(10 – 5) x 2	=	10	
B	(20 – 10) x 3	=	30	
C	(20 – 15) x 6	=	30	

			70	(F)
			======	

(iv) Material Mix Variance

A	(6 – 5) x 2	=	2	(F)
B	(12 – 10) X 3	=	6	(F)
C	(12 – 15) x 6	=	18	(A)

			10	(A)
			=====	

(v) Material Yield Variances (SQ – RSQ) x SP

A	(10 – 6) x 2	=	8	(F)
B	(20 – 12) x 3	=	24	(F)
C	(20 – 12) x 6	=	48	(F)

			80	(F)
			=====	

****

Problem: 2

From the following particulars computer

(a) Material cost variance,

(b) Material price variance,

(c) Material usage variance.

Quantity of materials purchased	3000 units
Value of materials purchased	Rs. 9000

Standard quantity of materials required per tone of output 30 units

Standard rate of material	Rs. 2.50 per unit
Opening stock of material	Nil
Closing stock of material	500 units
Output during the period	80 tonnes

Solution:

(i) MCV (SQ x SP) - (AQ x AP)

(2000 x 2) - (2500 x 3)

4000 - 7500 = 3500 (A)

(ii) MPV (SP – AP) x AQ

(2 – 3) x 2500 = 2500 (A)

(iii) MUC (SQ – AQ) x SP

(2000 – 2500) x 2 = 1000 (A)

AP = 9000/3000 = Rs. 3

SQ = 80 x 25 = 2000 units

SP = Rs. 2 per unit

AP = Material purchased + O.P Stock – Closing Stock

= 3000 + 0 - 500

= 3000 – 500 = 2500 units.

****

Problem: 3

The standard material cost for 100 kg of chemical D is made up of :

Chemical A – 30 kg @ Rs. 4 per kg

Chemical B – 40 kg @ Rs. 5 per kg

Chemical C – 80 kg @ Rs. 6 per kg

In a batch 500 kg of chemical D were produced over a mix of

Chemical A – 140 kg @ a cost of Rs. 588

Chemical B – 220 kg @ a cost of Rs. 1056

Chemical C – 440 kg @ a cost of Rs. 2860

How do the yield mix and the price factors contribute to the variance in the actual cost per 100 kg of chemical D over the standard cost?

Solution:

Chemical	Standard		Actual	
	Qty	Rate (per kg (Rs.))	Qty	Rate (per kg (Rs.))
A	30 kg	4.00 per kg	28	4.20
B	40 kg	5.00 per kg	44	4.80
C	80 kg	6.00 per kg	88	6.50
	150 kg		160	

Actual price = $\frac{588}{140}$ x 1 = 4.20

$$= \frac{1056}{220} \times 1 = 4.80$$

$$= \frac{2860}{440} \times 1 = 6.50$$

I) MCV : (SQ X SP) – (AQ x AP)

Chemical	A	(30 x 4) – (28 x 4.20)	=	2.40	(F)
	B	(40 x 5) – (44 x 4.80)	=	11.20	(A)
	C	(80 x 6) – (88 x 6.50)	=	92.00	(A)

		Total material cost variance	=	100.80	(A)
				=======	

II) MPV : (SP – AP) x AQ

Chemical	A	(4 – 4.20) x 28	=	5.60	(A)
	B	(5 – 4.80) x 44	=	8.80	(F)
	C	(6 – 6.50) x 88	=	44.00	(A)

		Total material price variance	=	40.80	(A)
				=======	

III) MUV – (SQ – AQ) X SP

Chemical	A	(30 – 28) x 4	=	8	(F)
	B	(40 – 44) x 5	=	20	(A)
	C	(80 – 88) x 6	=	48	(A)

		Total material price variance	=	60	(A)
				=======	

IV) MMV (RSQ – AQ) x SP

Chemical	A	(32.00 – 28.00) x 4	=	16	(F)
	B	(42.66 – 44.00) x 5	=	6.65	(A)
	C	(85.33 – 88.00) x 6	=	16.00	(A)

		Total material mix variance	=	6.65	(A)
				=======	

V) MYV (SQ – RSQ) x SP

Chemical	A	(30 – 32) x 4	=	8.00	(A)
Chemical	B	(40 – 42.66) x 5	=	13.35	(A)
Chemical	C	(80 – 85.33) x 6	=	31.98	(A)

		Total material yield variance	=	53.33	(A)
				=======	

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Problem: 4

The standard material cost to produce one tonne of chemical x is

300 kg of material A @ Rs. 10 per kg.

400 kg of material B @ Rs. 5 per kg.

500 kg of material C @ Rs. 6 per kg.

During a period 100 tonnes of mixture X were produced from the usage of

35 tonnes of material A at a cost of Rs. 9000 per tonne.

42 tonnes of material B at a cost of Rs. 6000 per tonne.

53 tonnes of material C at a cost of Rs. 7000 per tonne.

Calculate material variances.

Solution:

	Standard		Actual	
	Qty. (Tonnes)	Price (Rs.)	Qty. (Tonnes)	Price per tones (Rs.)
Chemical A	30	10,000	35	9,000
Chemical B	40	5,000	42	6,000
Chemical C	50	6,000	53	7,000
		120		130

(i) Material Cost Variances : (SQ x SP) – (AQ x AP)

Chemical A (30 x 10,000) – (35 x 9000)

3,00,000 – 3,15,000 = 15,000 (A)

Chemical B (40 x 5000) – (42 x 6000)

2,00,000 – 2,52,000 = 52,000 (A)

Chemical C (50 x 6000) – (53 x 7000)

3,00,000 – 3,71,000 = 71,000 (A)

Total material cost variance = 1,38,000 (A)

========

(ii) Material Price Variance : (SP – AP) x AQ

Chemical A (10000 -9000) x 35 = 35,000 (F)

Chemical B (5000 – 6000) x 42 = 42,000 (A)

Chemical C (6000 – 7000) x 53 = 53,000 (A)

	Total material price variance		=	60,000	(A)
				========	
(iii)	Material Quantity Variance : (SQ – AQ) x SP				
	Chemical A	(30 – 35) x 10000	=	50,000	(A)
	Chemical B	(40 – 42) x 5000	=	10,000	(A)
	Chemical C	(50 – 53) x 6000	=	18,000	(A)

	Total material Quantity variance		=	78,000	(A)
				========	
(iv)	Material Mix Variance (MMV) : (RSQ – AQ) x SP				
	Computation of RSQ :				
	[Individual of SQ/Total of SQ] x Total of AQ				
	A = 30/120 x 130 = 32.5				
	B = 40/120 x 130 = 43.33				
	C = 50/120 x 130 = 54.17				
	Chemical A	(32.5 – 35) x 10,000	=	25,000	(A)
	Chemical B	(43.33 – 42) x 5,000	=	6,650	(F)
	Chemical C	(54.17 – 53) x 6,000	=	7,020	(F)

	Total material mix variance		=	11,330	(A)
				========	
(v)	Material Yield Variance (MYV) : (SQ – RSQ) x SP				
	Chemical A	(30 – 32.5) x 10,000	=	25,000	(A)
	Chemical B	(40 – 43.33) x 5,000	=	16,650	(A)
	Chemical C	(50 – 54.17) x 6,000	=	25,020	(A)

	Total material yield variance		=	66,670	(A)
				========	

****

Problem: 5

The standard labour component and the actual labour component engaged in a week for a job are as follows.

Particulars	Skilled Workers	Semi Skilled Workers	Unskilled Workers
Standard number of workers in the gang	32	12	6
Standard wage rate per hour (Rs.)	3	2	1
Actual number of workers employed in the gang during the week	28	18	4
Actual wage rate per hour Rs.	4	3	2

During the 40 hour working week, the gang produced 1800 standard labour hours of work. Calculate the different labour variances.

Solution:

Category of workers	Standard		Actual	
	Hours	Rate (Rs.)	Hours	Rate (Rs.)
Skilled	1280	3.00	1120	4.00
Semiskilled	480	2.00	720	3.00
Unskilled	240	1.00	160	2.00

	2000		2000
Loss	Nil		200
	----------		----------
Total Hours	2000	Hours Produced	1800
	======		=======

(i) 1280/2000 x 1800 = 1152
(ii) 480/2000 x 1800 = 432
(iii) 240/2000 x 1800 = 216

Category of workers	Standard		Actual	
	Hours	Rate (Rs.)	Hours	Rate (Rs.)
Skilled	1152	3.00	1120	4.00
Semiskilled	432	2.00	720	3.00
Unskilled	216	1.00	160	2.00

	1800	2000
Loss	Nil	(-) 200
	---------	-------------
	1800	1800
	======	========

Labour variance

(i) **Labour Cost Variance : (SH x SR) – (AH x AR)**

Skilled	(1152 x 3.00) – (1120 x 4.00)	=	1,024 (A)
Semiskilled	(432 x 2.00) – (720 x 3.00)	=	1,296 (A)
Unskilled	(216 x 1.00) – (160 x 2.00)	=	104 (A)

Total labour cost variance		=	2,424 (A)
			========

(ii) **Labour Rate Variance : (SR – AR) x AH**

Skilled	(3.00 – 4.00) x 1120	=	1,120 (A)
Semiskilled	(2.00 – 3.00) x 720	=	720 (A)
Unskilled	(1.00 – 2.00) x 160	=	160 (A)

Total labour rate variance		=	2,000 (A)
			======

(iii) **Labour Efficiency Variance : (SH – AH) x SR**

Skilled	(1152 – 1120) x 3.00	=	96 (F)
Semiskilled	(432 – 720)	=	576 (A)
Unskilled	(216 – 160)	=	56 (F)

Total labour efficiency variance		=	424 (A)
			=======

(iv) **Labour Mix Variance : (RSH – AH) x SR**

Skilled	(1280 – 1120) x 3.00	=	480 (F)
Semiskilled	(432 – 720) x 2	=	576 (A)
Unskilled	(240 – 160) x 1.00	=	80 (F)

Total labour mix variance		=	16 (A)
			======

(v) **Labour Yield Variance : (SH – RSH) x SR**

Skilled	(1152 – 1280) x 3.00	=	384	(A)
Semiskilled	(432 – 480) x 2.00	=	96	(A)
Unskilled	(216 – 240) x 1	=	24	(A)

Total labour yield variance		**=**	**504(A)**	
			=======	

****

Problem: 6

The details regarding the composition and the weekly wage rates of labour force engaged on a job scheduled to be completed in 30 weeks are as follows.

Category of workers	Standard		Actual	
	No. of labour	Weekly wage rate per labourer (Rs.)	No. of labourer	Weekly wage rate per labourer (Rs.)
Skilled	75	60	70	70
Semiskilled	45	40	30	70
Unskilled	60	30	80	20

The work actually has been completed in 32 weeks. Calculate the various labour variances.

Solution:

Category of workers	Standard		Actual	
	Hours	Rate (Rs.)	Hours	Rate (Rs.)
Skilled	2,250	60	2,240	70
Semiskilled	1,350	40	960	50
Unskilled	1,800	30	2,560	20
	5,400		5,760	

(i) Labour Cost Variance : (SH x SR) – (AH x AR)

			Rs.
Skilled	(2250 x 60) – (2240 x 70)	=	21,800 (A)
Semiskilled	(1350 x 40) – (960 x 50)	=	6,000 (F)
Unskilled	(1800 x 30) – (2560 x 20)	=	2,800 (F)

Total labour cost variance		=	13,000 (A)
			=========

(ii) Labour Rate Variances : (SR – AR) x AH

Skilled	(60 – 70) x 2240	=	22,400 (A)
Semiskilled	(40 – 50) x 960	=	9,600 (A)
Unskilled	(30 – 20) x 2560	=	25,600 (F)

Total labour rate variance		=	6,400 (A)
			=========

(iii) Labour Efficiency Variance : (SH – AH) x SR

Skilled	(2250 – 2240) x 60	=	600 (A)
Semiskilled	(1350 – 960) x 40	=	15,600 (F)
Unskilled	(1800 – 2560) x 30	=	22,800 (A)

Total labour efficiency variance		=	7,800 (A)
			========

(iv) Labour Mix Variances : (RSH – AH) x SR

RSH :	Skilled	2 250/5400 x 5760	=	2,400
	Semiskilled	1350/5400 x 5760	=	1,440
	Unskilled	1800/5400 x 5760	=	1,920

Skilled	(2400 – 2240) x 60	=	9,600 (F)
Semiskilled	(1440 – 960) x 40	=	19,200 (F)
Unskilled	(1800 – 1920) x 30	=	19,200 (A)

Total labour mix variance		=	9,600 (F)
			=========

(v) Labour Yield Variance : (SH – RSH) x SR

Skilled	(2250 – 2400) x 60	=	9,000	(A)
Semiskilled	(1350 – 1440) x 40	=	3,600	(A)
Unskilled	(1800 – 1920) x 30	=	3,600	(A)

Total labour efficiency variance		=	16,200	(A)
			=========	

Problem 7.

Calculate the labour variances from the following information.

Standard wages

Grade X : 90 labourers at Rs. 2 per hour

Grade Y : 60 labourers at Rs. 3 per hour

Actual wages

Grade X : 80 labourers at Rs. 2.50 per hour

Grade Y : 70 labourers at Rs. 2.00 per hour

Budgeted hours 1000; Actual hours 900

Budgeted Gross production 5000 units, Standard loss 20%; Actual loss 900 units.

Solution:

Category of workers	Standard			Actual	
	Hours	Rate (Rs.)		Hours	Rate (Rs.)
Grade X (90 x 1000)	90,000	2	900 x 80	72,000	2.50
Grade Y (60 x 1000)	60,000	3	900 x 70	63,000	2.00
	1,50,000			1,35,000	

Production units	5,000		5,000
Loss 20%	1,000	Actual Loss	900
	-------------		------------
	4,000		4,100
	=======		========

In order to adjust this standard loss and actual loss we have to prepare another table called Conversion Table.

Grade X : 90,000/4000 x 4100 = 92,250

Grade Y : 60,000/4000 x 4100 = 61,500

Conversion Table

	Standard		Actual	
	Hours	Rate (Rs.)	Hours	Rate (Rs.)
Grade X Grade Y	92,250 61,500	2.00 3.00	72,000 63,000	2.50 2.00
	1,53,750		1,35,000	

(i) Labour Cost Variance : (SH x SR) – (AH x AR)

Grade X : (92,250 x 2.00) – (72,000 x 2.50) = 4,500 (F)

Grade Y : (61,500 x 3.00) – (63,000 x 2.00) = 58,500 (F)

Total labour cost variance = 63,000 (F)

=========

(ii) Labour Rate Variance : (SR –AR) x AH

Grade X : (2 – 2.5) x 72,000 = 36,000 (A)

Grade Y : (3 – 2) x 63,000 = 63,000 (F)

Total labour cost variance = 27,000 (F)

=========

(iii) Labour Efficiency Variance : (SH – AH) x SR

Grade X : (92,250 – 72,000) x 2 = 40,500 (F)

Grade Y : (61,500 – 63,000) x 3 = 4,500 (A)

Total labour efficiency variance = 36,000 (F)

=========

(iv) Labour Mix Variance : (RSH – AH) x SR

RSH	Grade X = 92,250/1,53,750 x 1,35,000	=	81,000
	Grade Y = 61,500/1,53,750 x 1,35,000	=	54,000

LMV Grade X = (81,000 – 72,000) x 2 = 18,000 (F)

Grade Y = (54,000 – 63,000) x 3 = 27,000 (A)

Total mix variance = 9,000 (A)

=========

(v) Labour Yield Variance : (SH – RSH) x SR

Grade X : (92,250 – 18,000) x 2 = 22,500 (F)

Grade Y : (61,500 – 54,000) x 3 = 22,500 (F)

Total LYV = 45,000 (F)

=========

Problem 8.

From the data given below calculate labour variance for the two departments.

	Dept. A	Dept. B
Actual fross wages (Direct) (Rs.)	2,000	1,800
Standard hours produced	8,000	6,000
Standard rate per hours	.30 paise	.35 paise
Actual hours worked	8,200	5,800

Solution :

	Standard		Actual	
	Hours	Rate (Rs.)	Hours	Rate (Rs.)
Department A	8,000	.30	8,200	_
Department B	6,000	.35	5,800	_
	14,000		14,000	

(i) Labour Cost Variances : (SH x SR) – (AH x AR)

Department A (8000 x .30) – (2000) = 400 (F)

Department B (6000 x .35) – (1800) = 300 (F)

=======

(ii) Labour Rate Variance : (SR – AR) x AH

Here, actual rate is not given in the problem, so we apply the following formula :

(SR – AR) x AH : (SR x AH) – (AR x AH)

Department A	(.30 x 8200) – 2000	=	460	(F)

Department B	(.35 x 5800) – 1800	=	230	(F)
			======	

(iii) Labour Efficiency Variance : (SH – AH) x SR

Department A	(8000 – 8200) x .30	=	60	(A)

Department B	(6000 – 5800) x .35	=	70	(F)
			======	

(iv) Labour Mix Variance : (RSH – AH) x SR

RSH : For A :	8000/41000 x 14000	=	8000	

RSH : For B :	6000/14000 x 14000	=	6000	
Department A	(8000 – 8200) x .30	=	60	(A)

Department B	(6000 – 5800) x .35	=	70	(F)
			=====	

(v) Labour Yield Variance : (SH – RSH) x SR

Department A	(8000 – 8000) x .30	=	0
Department B	(6000 – 6000) x .35	=	0

(No need to apply LMV, LYV)

****

Problem 9.

RAC Ltd. Has furnished you the following data:

	Budget	Actual Sep. 1998
No. of working days	25	27
Production in units	20,000	22,000
Fixed overheads (Rs.)	30,000	31,500

Budgeted fixed overhead rate is Rs. 1 per hour. In Sep. 1998 the actual hours worked were 31,500. Calculate the overhead variances.

Solution:

	Budget	Actual Sep. 1998
Number of working days	25	27
Production in units (i.e., output)	20,000	22,000
Cost (Rs.)	30,000	31,000
Hours	30,000	31,500

- Overhead Variance : (Std cost of AO – AC)

  = (33,000 – 31,000) = 2000 (F)

  [SCAO = SC x AO/SO = 30,000 x 22,000/20,000 = 33000]

- Overhead Budget Variance : (SC – AC)

  = (30,000 – 31,000) = 1000 (A)

- Overhead Volume Variance : (AO – SO) x SR per unit

  = (22,000 – 2,000) x 1.5 = 3000 (F)

  [SR per unit = SC/SO = 30,000/20,000 = 1.5]

- Overhead Efficiency Variance : (AO – SO in actual hours worked) x SR per unit

  = (22,000 – 21,000) x 1.5 = 1500 F

  [So, in Actual worked = SO x AHrs/SHrs = 20,000 c 31,500/30,000 = 21000]

- Overhead Capacity Variance : (SO in actual hours worked – SO) SR per unit

  = (21,000 – 20,000) x 1.5 = 1500 F

- Overhead Calendar Variance : [Number of days given in the problem]

  (SO in actual days worked – SO) x SR per unit

  = (21,600 – 20,000) x 1.5 = 2400 F

  [So, in actual days worked = SO x A. days/S.days = 20,000 x 27/25 = 21600]

****

Problem 10.

Calculate overhead variances :

Particulars	Budget	Actual
No. of working days	20	22
Man hours per day	8000	8400
Output per man hour in unit	1.0	.09
Overhead cost	1,60,000	1,68,000

Solution:

Particulars	Budget	Actual	
Number of working days	20	22	
Cost	Rs. 1,60,000	Rs. 1,68,000	
Hours	8,000	8,400	
Output (8000 x 20 x 1)	1,60,000	1,66,320	(8400 x 22 x 0.90)

Overhead Cost Variance

(i) Overhead Budget Variance : (SC of AO – AC)

= (1,66,320 – 1,68,000) = 1680 (A)

(ii) Overhead Budget Variance : (SC – AC)

= (1,60,000 – 1,68,000) = 8000 (A)

(iii) Overhead Volume Variance : (AO – SO) x SR per unit

= (1,66,320 – 1,68,000) x 1

= 6320 (F)

SR per unit = SC/SO = 1,60,000/1,60,000 = 1.00

(iv) Overhead Efficiency Variance : (AO – SO in actual hours worked) x SR per unit

= (1,66,320 – 1,68,000) x 1 = 1680 (A)

SO in A.Hrs worked = SO x A.Hrs/S.Hrs = 1,60,000 x 8400/8000 = 1.68.000

(v) Overhead Capacity Variance : (SO in Actula Hrs worked – SO) x SR per unit

= (1,68,000 – 1,60,000) x 1 = 8000 (F)

(vi) Overhead Calendar Variance : (SO in actual days worked – SO) x SR per unit

= (1,76,000 – 1,60,000) = 16,000 F

[SO in A.days worked = SO x A.days/S.days = 1,60,000 x 22/20 = 1,76,000]

Problem 11.

The budgeted sales for one month and the actual results achieved are as under.

Product	Qty.	Budget Rate (Rs.)	Amount (Rs.)	Qty.	Actual Rate (Rs.)	Amount (Rs.)
A	1000	100	1,00,000	1200	125	1,50,000
B	700	200	1,40,000	800	150	1,20,000
C	500	500	1,50,000	600	300	1,80,000
D	300	500	1,50,000	400	600	2,40,000
	2500		5,40,000	3000		6,90,000

Calculate sales variances in respect of each product.

Solution:

(i) Sales Value Variance : (AQ x AP) – (SQ x SP)

Product A : (1200 x 125) – (1000 x 100) = 50,000 (F)

Product B : (800 x 150) – (700 x 200) = 20,000 (A)

Product C : (600 x 300) – (500 x 500) = 7,000 (A)

Product D : (400 x 600) – (300 x 500) = 9,000 (F)

Total sales value variance = 32,000 (F)

========

(ii) Sales Price Variance : (AP – SP) x AQ

Product A : (125 – 100) x 1200 = 30,000 (F)

Product B : (150 – 200) x 800 = 40,000 (A)

Product C : (300 – 500) x 600 = 1,20,000 (A)

Product D : (600 – 500) x 400 = 40,000 (F)

Total sales price variance = 90,000 (A)

========

(iii) Sales Volume Variance (AQ – SQ) x SP

Product A : (1200 – 1000) x 100 = 20,000 (F)

Product B : (800 – 700) x 200 = 20,000 (F)

Product C : (600 – 500) x 500 = 50,000 (F)

Product D : (400 – 500) x 500 = 50,000 (F)

	Total sales volume variance		=	1,40,000 (F)
				========

(iv) Sales mix variance : (SQ – RSQ) x SP (RSQ : Revised std Qty.)

RSQ

Product A	:	1000/2500 x 3000	=	1,200
Product B	:	700/2500 x 3000	=	840
Product C	:	500/2500 x 3000	=	600
Product D	:	300/2500 x 3000	=	360

Sales Mix Variance

Product A	:	(1200 – 1200) x 100	=	0000
Product B	:	(800 – 840) x 200	=	8,000 (A)
Product C	:	(600 – 600) x 500	=	0000
Product D	:	(400 – 360) x 500	=	20,000 (F)

	Total sales mix variance		=	12,000 (F)
				========

(v) Sales Sub Volume Variance (RSQ – SQ) x SP

Product A	:	(1200 – 1000) x 100	=	20,000 (F)
Product B	:	(840 – 700) x 200	=	28,000 (F)
Product C	:	(600 – 500) x 500	=	50,000 (F)
Product D	:	(360 – 300) x 500	=	30,000 (F)

	Total sales sub volume variance		**=**	**1,28,000 (F)**
				========

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GLOSSARY	
Cost Accounting	- Cost Accountancy is the application of costing and cost accounting - principles, methods and techniques to the science, art and practice of cost control - and the ascertainment of profitability.
concept Of Cost Accounting	- Cost - Costing - Definition
Objectives Of Cost Accounting	- To provide specialised services of cost audit. - To assist the management in the future production policies.
Advantages Of Cost Accounting	- Helpful to the Government. - Cost accounting allows for data that enables the firm to measure efficiency. - This could be efficiencies with respect to cost, time, expenses etc.
Limitations Of Cost Accounting	- Failure of Costing System. Cost accounting system has failed to bring - expected results in many cases.
Concept Standard Costing	- The institute of cost and management Accountants, England defines standard cost is "a predetermined cost which is calculated from management's standard of efficient operation and the relevant necessary expenditure"
Advantages of Standard Costing	- It guides the management in formulating price and production policy. - It facilitates the reduction in clerical and accounting cost and management time.
Managerial Decision Making	- Managerial accounting can be used in short-term and long-term decisions involving the financial health of a company.

Definition	Managerial accounting helps managers make operational decisions–intended to help increase the company operational efficiency.
Managerial Decision-Making Process	Identification of the Problem or Opportunity Data Collection and Information Gathering Problem Analysis
Principles of Managerial Decision Making	Define the Problem Gather Information Generate Alternatives
Advantages of Managerial Decision	Efficient Resource Allocation Goal Achievement Problem Solving

UNIT ACTIVITIES:

(i) Short Type Questions

1. What is meant by Cost Accounting?
2. Define Cost Accounting
3. What is cost
4. What are the elements of cost?
5. What is meant by standard costing?
6. Define standard costing.
7. What is meant by historical costing?
8. What are the limitations of historical costing?
9. What is Decision Making in Management?
10. Characteristics of Decision Making
11. What is Decision Making Process?
12. Decision Making Process in Management with Example
13. What is Decision Making Styles
14. What are the Techniques of Decision Making
15. Types of Decision Making in Management
16. Difficulties in Decision Making Process

(ii)Essay Type Questions:

1. What is meant by cost sheet? Explain the purpose of preparing cost sheet.

2. Difference between standard costing and budgetary control.
3. What are the advantages of standard costing? 7. List out the limitations of standard costing.
4. What is standard costing? Bring out clearly the relationship between standard costs and budgetary control.
5. Cost standards indicate what cost should be incurred under desirable operating conditions while budgeted costs indicate what costs are expected to be recognizing limitations posed by less than optimal operating conditions. Explain.
6. Define standard cost. At what level standards should be set? Do standard cost represent a separate type of cost system?
7. Explain the meaning of standard cost. At what level standards should be set? Do standard cost represent a separate type of cost system?
8. " cost standards indicate what cost should be incurred under desirable operating condition while budgeted cost indicate what costs are expected to be recognizing limitations posted by less than optimal operation conditions". Explain.
9. Describe the advantages and limitations of standard costing.
10. Explain term "variance "under standard costing and discuss its significance.
11. Enumerate the reasons for each the following variances.
    a) direct material usage variance
    b) direct labour rate variance
    c) direct material mix variance
12. Distinguish between standard costing and budgetary control
13. State the preliminaries to the considered while setting production standards.

ANSWER FOR CHECK YOUR PROCESS

Module-1				
1.C	**2.A**	**3.A**	**4.A**	**5.C**
Module-2				
1.A	**2.B**	**3.A**	**4.C**	**5.A**
Module-3				
1.D	**2.A**	**3.D**	**4.C**	**5.B**

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