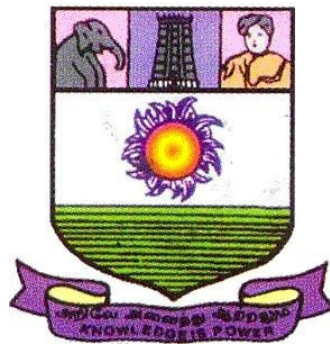


UG Programme

(Three Year Programme)

Curriculum, Programme Structure and Course Contents

(Prepared in conformity with LOCF)
(2023-2024 onwards)



DEPARTMENT OF COMMERCE
Directorate of Distance and Continuing
Education
Manonmaniam Sundaranar University
Tirunelveli – 627012

THIRD YEAR-SEMESTER – VI
CORE-XIV: MANAGEMENT ACCOUNTING

Subject Code	L	T	P	S	Credits	Inst. Hours	Marks		
							CIA	External	Total
	6				4	6	25	75	100

Learning Objectives

L01	To understand basics management accounting
L02	To know the aspects of Financial Statement Analysis
L03	To familiarize with fund flow and cashflow analysis
L04	To learn about budgetary control
L05	To gain insights into marginal costing.

Prerequisite: Should have studied Financial Accounting in I Semester.

Unit	Contents	No.of Hours
I	Introduction to Management Accounting Management Accounting – Meaning – Scope – Importance- Limitations - Management Accounting Vs Cost Accounting – Management Accounting Vs Financial Accounting. Analysis and Interpretation of Financial Statements – Nature and Significance – Types of Financial Analysis – Tools of Analysis – Comparative Statements–Common Size Statement–Trend Analysis.	18
II	Ratio Analysis Ratio Analysis: Meaning – Advantages – Limitations – Types of Ratios – Liquidity Ratios – Profitability Ratios -Turnover Ratios – Solvency Ratios – Leverage Ratios - Preparation of Financial Statements from Ratios.	18
III	Funds Flow & Cash Flow Analysis Introduction, Meaning of Funds Flow Statement-Ascertainment of Flow of Funds-Schedule of Changes in Working Capital-Adjusted Profit and Loss Account - Preparation of Funds Flow Statement. Cash Flow Statement: Meaning – Advantages – Limitations – Preparation of Cash Flow Statement as per AS 3 –Cash Flow from Operating, Financing and Investing activities	18
IV	Budget and Budgetary Control Meaning – Preparation of Various Budgets – Cash Budget – Flexible Budget–Production Budget–Sales Budget–Master Budget – Budgetary Control – Benefits	18
V	Marginal Costing: Meaning - Features – Marginal Costing vs Absorption Costing - Fixed Cost, Variable Cost and Semi Variable Cost- Contribution- Marginal Cost Equation- P/V Ratio - Break Even Point - Margin of Safety – Cost- Volume Profits Analysis. Decision Making: Selection of a Product Mix–Make or Buy Decision – Discontinuance of a product line – Change or Status quo – Limiting Factor or Key Factor.	18
	TOTAL	90

THEORY 40% & PROBLEMS 60%	
CO	Course Outcomes
C01	Remember and recall basics in management accounting
C02	Apply the knowledge of preparation of Financial Statements
C03	Analyse the concepts relating to fund flow and cashflow
C04	Evaluate techniques of budgetary control
C05	Formulate criteria for decision making using principles of marginal costing.
Text books	
1	Jain S.P. & Narang K.L. (2018) Cost and Management Accounting, Kalyani Publications,
2	Rds. Maheswari, Cost and Management Accounting, Sultan Chand Sons Publications, New Delhi.
3	Sharma and Shashi K. Gupta, Management Accounting, Kalyani Publishers, Chennai.
4	Jenitra L Mervin, Daslton L Cecil, Management Accounting, Lerantec Press, Chennai.
5	T.S.Reddy & Y. Hari Prasad Reddy, Management Accounting, Margham Publications, Chennai.
Reference Books	
1	Chadwick–The Essence of Management Accounting, Financial Times Publications, England.
2	Charles T. Horngren and Gary N. Sundem–Introduction to Management Accounting, Pearson, Chennai.
3	Murthy A and Gurusamy S, Management Accounting- Theory & Practice, Vijay Nicole Imprints Pvt. Ltd. Chennai.
4	Hansen-Mowen, Cost Management Accounting and Control, South Western College, India.
5	N.P.Srinivasan, Management Accounting, New Age publishers, Chennai.
NOTE: Latest Edition of Textbooks Maybe Used	
Web Resources	
1	https://www.accountingnotes.net/companies/fund-flow-analysis/fund-flow-analysis-accounting/13300
2	https://accountingshare.com/budgetary-control/
3	https://www.investopedia.com/terms/m/marginalcostofproduction.asp

**MAPPING WITH PROGRAMME OUTCOME AND SPECIFIC
PROGRAMME OUTCOME**

	P01	P02	P03	P04	P05	P06	P07	P08	PS01	PS02	PS03
C01	3	2	3	2	3	2	3	3	3	2	2
C02	3	2	2	2	3	2	2	2	3	2	3
C03	3	2	3	2	3	2	3	3	3	2	2
C04	3	2	2	2	3	2	2	2	3	2	2

Management Accounting

CO5	3	3	3	2	3	2	3	3	3	2	3
TOTAL	15	11	13	10	15	10	13	13	15	10	12
AVERAGE	3	2.1	2.6	2	2	2	2.6	2.6	3	2	2.4

3-Strong, 2-Medium, 1-Low

Unit I

Introduction to Management Accounting

Management Accounting – Meaning – Scope – Importance- Limitations - Management Accounting Vs Cost Accounting – Management Accounting Vs Financial Accounting.

Analysis and Interpretation of Financial Statements – Nature and Significance – Types of Financial Analysis – Tools of Analysis – Comparative Statements–Common Size Statement–Trend Analysis.

What is Management Accounting?

Management Accounting (also called **Managerial Accounting**) is the process of preparing financial and non-financial information to help managers make informed business decisions. Unlike financial accounting (which focuses on external users like investors and regulators), management accounting is used **internally** within an organization.

Management Accounting provides useful information to managers for running the business efficiently.

Definition

Management Accounting is the process of collecting, analyzing, and presenting financial and non-financial information to help managers plan, control, and make decisions within an organization.

Introduction

The **scope of management accounting** is very wide because it covers all techniques and tools that help management in **planning, controlling, decision-making, and performance evaluation**. It combines elements of financial accounting, cost accounting, statistics, economics, and management science.

Areas Covered

Financial Accounting

Meaning

Management Accounting

Financial Accounting is the branch of accounting that records, classifies, summarizes, and reports the financial transactions of a business to external users in the form of financial statements.

It mainly deals with **historical financial information**.

Objectives

The **objectives of financial accounting** are the main goals or purposes for which financial records are maintained and financial statements are prepared.

Management Accounting

□ Main Objectives

❶ To Maintain Systematic Records

- Record all financial transactions in a proper and organized manner.
- Helps avoid errors and fraud.

❷ To Ascertain Profit or Loss

- Prepare Trading and Profit & Loss Account.
- Determines whether the business is earning profit or suffering loss.

❸ To Show Financial Position

- Prepare Balance Sheet.
- Shows assets, liabilities, and capital of the business.

❹ To Provide Information to External Users

Financial statements are useful to:

- Investors
- Creditors
- Banks
- Government authorities

❺ To Facilitate Decision-Making

- Helps investors and creditors make investment or lending decisions.
- Assists management in reviewing business performance.

❻ To Meet Legal Requirements

- Companies must prepare financial statements as per accounting standards and laws.

The main objective of financial accounting is to provide accurate and reliable financial information about the business to external users.

□ Main Financial Statements

Income Statement (Profit & Loss Account)

Purpose:

Shows the profit or loss of a business for a specific accounting period.

Main Components:

- Revenue / Sales
- Expenses
- Net Profit or Net Loss



Formula:

Net Profit = Total Revenue – Total Expenses

2 Balance Sheet (Statement of Financial Position)

Purpose:

Shows the financial position of the business on a particular date.

Main Components:

- Assets (what the business owns)
- Liabilities (what the business owes)
- Capital / Equity



Accounting

Equation:

Assets = Liabilities + Capital

3 Cash Flow Statement

Purpose:

Shows the inflow and outflow of cash during a period.

Divided Into:

- Operating Activities
- Investing Activities
- Financing Activities

It helps in understanding liquidity and cash management.

4 Statement of Changes in Equity

Purpose:

Shows changes in owner's equity during the accounting period.

Includes:

- Opening capital
- Add: Profit
- Less: Drawings
- Closing capital

The four main financial statements together provide complete information about:

- Profitability
- Financial position
- Cash flows
- Changes in ownership interest

☐ **Users of Financial Accounting**

Management Accounting

Meaning

Users of financial accounting are individuals or groups who use financial statements to make economic decisions.

They are broadly classified into **Internal Users** and **External Users**.

Internal Users

☐ **Management**

- Planning and controlling operations
- Evaluating business performance
- Making strategic decisions

☐ **Employees**

- Assessing job security
- Understanding company stability
- Negotiating salaries and benefits

External Users

☐ **Investors / Shareholders**

- To decide whether to invest or sell shares
- To evaluate profitability and growth

☐ **Creditors & Suppliers**

- To check the company's ability to pay debts

☐ **Banks & Financial Institutions**

- To decide whether to grant loans

☐ **Government**

- For taxation and regulatory purposes

☐ **Customers**

- To ensure long-term stability of the company

☐ **General Public**

- To understand the company's contribution to the economy

Financial accounting information is useful to a wide range of users for decision-making, investment planning, lending, taxation, and evaluating financial performance.

☐ **Features**

Historical in Nature

- Records past financial transactions.
- Based on actual data, not estimates.

Monetary Transactions Only

Management Accounting

- Records only those transactions that can be expressed in money.
- Non-financial information is not included.

3 Legal Requirement

- Compulsory for companies and registered businesses.
- Must follow accounting standards and legal provisions.

4 Based on Accounting Principles

- Prepared according to Generally Accepted Accounting Principles (GAAP) or accounting standards.
- Ensures uniformity and reliability.

5 Periodic Reporting

- Financial statements are prepared at the end of an accounting period (usually annually or quarterly).

6 Concerned with the Entire Business

- Shows overall performance of the organization.
- Does not focus on individual departments.

7 Objective and Reliable

- Based on actual transactions supported by documents.
- Helps maintain transparency.

Financial accounting provides systematic, reliable, and standardized financial information about a business for external users.

⚠ Limitations

Based on Historical Data

- Records only past transactions.
- Does not provide future forecasts.

2 Ignores Non-Monetary Information

- Only monetary transactions are recorded.
- Factors like employee morale, brand value, and market competition are not shown.

3 No Detailed Departmental Analysis

- Shows overall performance of the business.
- Does not provide detailed cost or profit of each department.

4 Possibility of Manipulation

- Window dressing of financial statements is possible within legal limits.
- May not always reflect the true financial position.

5 Does Not Help in Decision-Making

Management Accounting

- Mainly prepared for external reporting.
- Provides limited help for managerial decisions.

6 Fixed Format and Rules

- Must follow accounting standards.
- Less flexibility compared to management accounting.

7 Inflation Not Considered

- Assets are recorded at historical cost.
- Changes in price levels are not reflected.

Although financial accounting is essential for reporting and legal purposes, it has several limitations, especially for internal planning and decision-making.

2 Cost Accounting

Cost Accounting is the branch of accounting that deals with the recording, classification, analysis, and control of costs related to production or services.

It helps in determining the **cost per unit** and controlling expenses to improve profitability.

□ Objectives of Cost Accounting

Main Objectives

1 To Ascertain Cost

- Determine the cost of products, services, jobs, or processes.
- Find out cost per unit.

2 To Control Costs

- Compare actual cost with standard cost.
- Identify wastage and inefficiencies.
- Reduce unnecessary expenses.

3 To Fix Selling Price

- Helps in price determination based on total cost and desired profit.
- Useful in competitive markets.

4 To Determine Profitability

- Calculate profit of each product, department, or job.
- Identify profitable and unprofitable activities.

5 To Assist in Decision-Making

- Make or buy decisions
- Product mix decisions

- Shutdown decisions
- Expansion decisions

6 To Provide Data for Budgeting

- Helps in preparation of budgets and forecasts.
- Assists in planning future production and sales.

7 To Reduce Waste and Improve Efficiency

- Identifies idle time, material loss, and excess usage.
- Encourages better utilization of resources.

The primary objective of cost accounting is to determine and control costs to improve efficiency and profitability of the business.

Main Elements of Cost

The **main elements of cost** are the basic components that make up the total cost of a product or service.

In cost accounting, total cost is generally divided into **three main elements**.

1 Material Cost

Material cost refers to the cost of raw materials used in production.

Types:

- **Direct Material** – Materials directly used in making the product (e.g., wood in furniture).
- **Indirect Material** – Materials not directly traceable (e.g., lubricants, cleaning supplies).

2 Labour Cost

Labour cost refers to wages paid to workers.

Types:

- **Direct Labour** – Workers directly involved in production (e.g., machine operators).
- **Indirect Labour** – Supervisors, maintenance staff, etc.

3 Expenses (Overheads)

Expenses include all other costs apart from material and labour.

Types:

- **Direct Expenses** – Directly related to production (e.g., royalty per unit).
- **Indirect Expenses (Overheads)** – Rent, electricity, depreciation, insurance, etc.

Summary Formula

Total Cost = Material Cost + Labour Cost + Expenses (Overheads)

Or

Total Cost = Prime Cost + Overheads

Where:

- **Prime Cost = Direct Material + Direct Labour + Direct Expenses**

Understanding the elements of cost helps in proper cost control, pricing decisions, and profitability analysis.

□ Techniques Used in Cost Accounting

Main Techniques

❏ 1 Standard Costing

- Predetermined (expected) cost is fixed.
- Actual cost is compared with standard cost.
- Differences (variances) are analyzed to control costs.

❏ 2 Marginal Costing

- Separates costs into **fixed and variable costs**.
- Helps in decision-making such as pricing, product mix, and make-or-buy decisions.

❏ 3 Budgetary Control

- Preparation of budgets for different departments.
- Actual performance is compared with budgeted figures.
- Helps in cost control and performance evaluation.

❏ 4 Job Costing

- Cost is calculated for each job separately.
- Suitable for customized production (e.g., printing, construction).

❏ 5 Process Costing

- Used where production is continuous.
- Cost is calculated for each process or stage (e.g., textile, cement industries).

❏ 6 Activity-Based Costing (ABC)

- Costs are assigned based on activities that drive costs.
- Provides more accurate cost allocation.

❏ 7 Uniform Costing

- Same costing principles adopted by similar industries.
- Helps in comparison and benchmarking.

These techniques help management in cost determination, cost control, decision-making, and improving efficiency.

Management Accounting

□ Advantages

1 Helps in Cost Control

- Identifies unnecessary expenses.
- Controls material, labour, and overhead costs.

2 Determines Accurate Cost

- Calculates cost per unit of product or service.
- Helps in better pricing decisions.

3 Assists in Price Fixation

- Fixes selling price based on cost and desired profit.
- Useful in competitive markets.

4 Increases Efficiency

- Detects wastage and idle time.
- Encourages better use of resources.

5 Helps in Decision-Making

- Make or buy decisions
- Product mix decisions
- Expansion or shutdown decisions

6 Measures Profitability

- Finds profit of each product, department, or job.
- Identifies profitable and unprofitable activities.

7 Helps in Budget Preparation

- Provides data for budgeting and forecasting.
- Improves financial planning.

8 Reduces Chances of Loss

- Early detection of cost overruns.
- Prevents financial losses.

Cost accounting improves cost control, operational efficiency, and profitability, making it an essential tool for modern businesses.

△ Limitations

1 Costly System

- Installation and maintenance of a cost accounting system is expensive.
- Requires specialized staff and software.

2 Complex Process

Management Accounting

- Involves detailed procedures and calculations.
- May be difficult for small businesses to maintain.

3 Based on Estimates

- Some costs (like overheads) are estimated or allocated.
- May not always be fully accurate.

4 Not Suitable for All Businesses

- More useful for manufacturing industries.
- Less useful in small trading or service firms.

5 Possibility of Manipulation

- Incorrect data entry or biased allocation can distort results.

6 No Guarantee of Profit

- Cost control alone does not ensure profitability.
- Success also depends on sales and market conditions.

7 Requires Management Support

- Ineffective without proper cooperation from management and staff.

Although cost accounting is very useful for cost control and decision-making, it has certain limitations such as high cost, complexity, and reliance on estimates.

Cost accounting is an important tool for controlling costs and improving operational efficiency, especially in manufacturing and production-based businesses.

3 Budgeting and Forecasting

Budgeting and Forecasting are important tools of management accounting used for planning and controlling business activities.

- **Budgeting** means preparing a detailed financial plan for a future period.
- **Forecasting** means estimating future events based on past data and trends.

1 Budgeting

Meaning

A **budget** is a written financial plan prepared for a specific period.

Objectives

- Planning future activities
- Controlling expenses
- Coordinating departments
- Evaluating performance

Types of Budgets

Management Accounting

- Sales Budget
- Production Budget
- Cash Budget
- Purchase Budget
- Master Budget

Forecasting

☐ Meaning

Forecasting is the process of predicting future business conditions such as sales, demand, expenses, and profits.

☐ Basis of Forecasting

- Past data
- Market trends
- Economic conditions
- Statistical techniques

Difference between Budgeting and Forecasting

Basis	Budgeting	Forecasting
Meaning	Preparation of a detailed financial plan for a future period	Estimation or prediction of future events based on past data
Purpose	Planning and control	Prediction of future conditions
Nature	Target-oriented	Estimate-oriented
Time Period	Fixed period (usually one year)	Can be short-term or long-term
Flexibility	Less flexible once prepared	More flexible and can be revised frequently
Focus	Sets goals and limits	Predicts likely outcomes
Comparison	Compared with actual performance	Not necessarily compared with actual results

☐ Importance

Helps in Planning

- Provides a clear financial roadmap for the future.

Management Accounting

- Assists in setting goals and targets.

2 Reduces Uncertainty

- Forecasting predicts future trends.
- Helps management prepare for possible risks.

3 Better Control of Operations

- Budgeting sets limits on expenses.
- Actual results are compared with budgeted figures.

4 Improves Coordination

- Aligns activities of different departments.
- Ensures smooth functioning of the organization.

5 Supports Decision-Making

- Provides relevant data for managerial decisions.
- Assists in investment and expansion planning.

6 Efficient Use of Resources

- Prevents wastage of materials, labour, and funds.
- Ensures optimal allocation of resources.

7 Performance Evaluation

- Helps measure efficiency by comparing budget with actual performance.
- Identifies areas needing improvement.

Budgeting and forecasting are essential tools for effective planning, control, coordination, and decision-making, ensuring long-term success of the business.

4 Financial Analysis and Interpretation

Financial Analysis and Interpretation is the process of examining financial statements to evaluate the financial performance and position of a business and to draw meaningful s for decision-making.

- **Financial Analysis** → Systematic examination of financial data.
- **Interpretation** → Explaining the meaning and significance of that data.

□ Objectives

The **objectives of financial analysis and interpretation** are the main purposes for examining and explaining financial statements to evaluate a company's performance and position.

Management Accounting

□ Main Objectives

❶ To Measure Profitability

- Evaluate earning capacity of the business.
- Analyze gross profit, net profit, and return on investment.

❷ To Assess Liquidity

- Check the ability to meet short-term obligations.
- Analyze current ratio and quick ratio.

❸ To Examine Solvency

- Determine long-term financial stability.
- Assess debt-equity position.

❹ To Evaluate Operational Efficiency

- Measure how effectively resources are utilized.
- Analyze turnover ratios.

❺ To Compare Performance

- Compare present performance with past years.
- Compare performance with competitors.

❻ To Assist in Decision-Making

- Helps management in planning and control.
- Assists investors and creditors in investment and lending decisions.

❼ To Detect Strengths and Weaknesses

- Identify areas of improvement.
- Suggest corrective measures.

The main objective of financial analysis and interpretation is to transform financial data into useful information that supports effective planning, control, and decision-making.

□ Tools of Financial Analysis

❶ Ratio Analysis

Ratio Analysis is a technique of financial analysis that involves calculating and interpreting financial ratios to evaluate a company's performance and financial position.

A **ratio** is a mathematical relationship between two financial figures.

□ Objectives of Ratio Analysis

The **objectives of ratio analysis** refer to the main purposes for calculating and interpreting financial ratios to evaluate a company's performance and financial health.

Management Accounting

□ Main Objectives

❶ To Measure Profitability

- Analyze the earning capacity of the business.
- Evaluate gross profit, net profit, and return on investment.

❷ To Assess Liquidity

- Determine the ability to meet short-term obligations.
- Evaluate current ratio and quick ratio.

❸ To Examine Solvency

- Assess long-term financial stability.
- Analyze debt-equity ratio and interest coverage ratio.

❹ To Evaluate Operational Efficiency

- Measure how effectively assets are used.
- Study turnover ratios like inventory and debtors turnover.

❺ To Compare Performance

- Compare performance with previous years.
- Compare with competitors or industry standards.

❻ To Assist in Decision-Making

- Help management in planning and control.
- Support investors and creditors in investment and lending decisions.

❼ To Identify Strengths and Weaknesses

- Highlight areas of strong performance.
- Point out areas needing improvement.

The main objective of ratio analysis is to convert financial data into meaningful information that helps in evaluating profitability, liquidity, solvency, and overall performance.

□ Types of Ratios

❶ Liquidity Ratios

Liquidity Ratios measure a company's ability to meet its **short-term obligations** using its short-term assets.

They show whether the business can pay its debts when they become due.

□ Objectives of Liquidity Ratios

- To assess short-term financial strength
- To evaluate working capital position
- To ensure smooth business operations

- To provide confidence to creditors

□ Main Liquidity Ratios

1 Current Ratio

Formula:

Current Ratio = Current Assets / Current Liabilities

Ideal Ratio: 2 : 1

Meaning:

Shows how many times current assets cover current liabilities.

2 Quick Ratio (Acid-Test Ratio)

Formula:

Quick Ratio = Quick Assets / Current Liabilities

Where:

Quick Assets = Current Assets – Inventory – Prepaid Expenses

Ideal Ratio: 1 : 1

Meaning:

Measures immediate ability to pay short-term debts without selling inventory.

3 Absolute Liquid Ratio (Cash Ratio)

Formula:

Absolute Liquid Ratio = Cash + Marketable Securities / Current Liabilities

Meaning:

Shows ability to pay liabilities using only cash and near-cash assets.

□ Importance

- Helps creditors assess risk
- Indicates financial stability
- Prevents liquidity crisis
- Supports working capital management

Liquidity ratios are essential tools to evaluate whether a company can meet its short-term financial commitments efficiently.

2 Profitability Ratios

Profitability Ratios measure the earning capacity of a business. They show how efficiently a company generates profit from its sales, assets, and capital.

□ Objectives of Profitability Ratios

- To evaluate earning capacity
- To measure operational efficiency

Management Accounting

- To compare performance over time
- To assist investors in decision-making

□ Main Profitability Ratios

1 Gross Profit Ratio

Formula:

$\text{Gross Profit Ratio} = \text{Gross Profit} / \text{Net Sales} \times 100$

Purpose:

Measures efficiency in production and pricing.

2 Net Profit Ratio

Formula:

$\text{Net Profit Ratio} = \text{Net Profit} / \text{Net Sales} \times 100$

Purpose:

Shows overall profitability after all expenses.

3 Operating Profit Ratio

Formula:

$\text{Operating Profit Ratio} = \text{Operating Profit} / \text{Net Sales} \times 100$

Purpose:

Measures profit from core business operations.

Return on Capital Employed (ROCE) Formula:

$\text{ROCE} = \text{Net Profit before Interest and Tax} / \text{Capital Employed} \times 100$

Purpose:

Measures return earned on total capital invested.

5 Return on Shareholders' Funds (ROE)

Formula:

$\text{ROE} = \text{Net Profit after Tax} / \text{Shareholders' Funds} \times 100$

Purpose:

Shows return to equity shareholders.

□ Importance

- Indicates financial performance
- Helps compare companies
- Attracts investors
- Assists management in improving profitability

Profitability ratios are key indicators of a company's financial success and operational efficiency.

3 Solvency Ratios

Solvency Ratios measure a company's ability to meet its **long-term financial obligations**. They show the long-term financial stability and capital structure of the business.

□ Objectives of Solvency Ratios

- To assess long-term financial strength
- To evaluate debt repayment capacity
- To analyze capital structure
- To provide confidence to long-term creditors

□ Main Solvency Ratios

1 Debt-Equity Ratio

Formula:

Debt-Equity Ratio = $\frac{\text{Total Debt}}{\text{Shareholders' Equity}}$

Purpose:

Shows the proportion of debt and equity used to finance the business.

Ideal Ratio: Generally 2 : 1 (varies by industry)

2 Proprietary Ratio

Formula:

Proprietary Ratio = $\frac{\text{Shareholders' Funds}}{\text{Total Assets}}$

Purpose:

Indicates the proportion of total assets financed by owners.

3 Interest Coverage Ratio

Formula:

Interest Coverage Ratio = $\frac{\text{Net Profit before Interest and Tax (EBIT)}}{\text{Interest Expense}}$

Purpose:

Measures the ability of the company to pay interest on borrowed funds.

4 Capital Gearing Ratio

Formula:

Capital Gearing Ratio = $\frac{\text{Fixed Interest Bearing Funds}}{\text{Equity Shareholders' Funds}}$

Purpose:

Shows the relationship between fixed-cost capital and equity capital.

□ Importance

- Helps long-term creditors assess risk
- Indicates financial stability
- Assists in investment decisions
- Helps maintain balanced capital structure

Solvency ratios are essential tools to evaluate the long-term financial soundness and debt-paying ability of a business.

④ Activity (Turnover) Ratios

Activity Ratios (also called **Turnover Ratios**) measure how efficiently a business uses its assets and resources to generate sales.

They indicate the **operational efficiency** of the business.

□ Objectives of Activity Ratios

- To measure efficiency in asset utilization
- To evaluate working capital management
- To assess operational performance
- To identify slow-moving assets

□ Main Activity Ratios

① Inventory Turnover Ratio

Formula:

$\text{Inventory Turnover Ratio} = \text{Cost of Goods Sold} / \text{Average Inventory}$

Purpose:

Shows how many times inventory is sold and replaced during the year.

Higher ratio indicates efficient inventory management.

② Debtors Turnover Ratio (Receivables Turnover)

Formula:

$\text{Debtors Turnover Ratio} = \text{Net Credit Sales} / \text{Average Debtors}$

Purpose:

Measures how quickly the company collects money from customers.

③ Creditors Turnover Ratio

Formula:

$\text{Creditors Turnover Ratio} = \text{Net Credit Purchases} / \text{Average Creditors}$

Purpose:

Indicates how quickly the company pays its suppliers.

4 Fixed Asset Turnover Ratio

Formula:

Fixed Asset Turnover Ratio = Net Sales / Net Fixed Assets

Purpose:

Measures efficiency in using fixed assets to generate sales.

5 Working Capital Turnover Ratio

Formula:

Working Capital Turnover Ratio = Net Sales / Working Capital

Purpose:

Shows how efficiently working capital is used to generate revenue.

□ Importance

- Improves operational efficiency
- Reduces wastage and idle resources
- Helps in better inventory and receivables management
- Supports better financial planning

□ Advantages

- Simple and easy to calculate
- Helps in comparison
- Assists in performance evaluation
- Useful for investors and creditors

⚠ Limitations

- Based on past data
- Ignores qualitative factors
- Can be misleading if used alone

Activity ratios help measure how efficiently a business utilizes its assets to generate sales and manage operations effectively.

Ratio analysis is a powerful tool for evaluating profitability, liquidity, solvency, and efficiency, helping stakeholders make informed financial decisions.

2 Comparative Financial Statements

Comparative Financial Statements are financial statements that present financial data of two or more accounting periods side by side to compare performance over time.

They help in identifying **growth, decline, or changes** in financial position.

□ Types of Comparative Statements

❏ 1 Comparative Income Statement

- Shows profit or loss of two or more years side by side.
- Highlights changes in sales, expenses, and net profit.

❏ 2 Comparative Balance Sheet

- Shows assets and liabilities of different years.
- Helps analyze changes in financial position.

It shows:

- Absolute change (increase or decrease)
- Percentage change

□ Objectives

- To compare financial performance over years
- To identify trends
- To analyze growth or decline
- To assist in decision-making

□ Advantages

- Easy comparison
- Identifies strengths and weaknesses
- Useful for management and investors

△ Limitations

- Based on historical data
- Does not consider inflation
- May be misleading without detailed analysis

Comparative financial statements help in evaluating changes in financial performance and position by comparing data across different accounting periods.

❏ 3 Common-Size Statements

Common-Size Statements are financial statements in which each item is expressed as a **percentage of a common base figure**.

They are also known as **Vertical Analysis** statements.

- In the **Income Statement**, each item is expressed as a percentage of **Net Sales**.
- In the **Balance Sheet**, each item is expressed as a percentage of **Total Assets** (or Total Liabilities).

□ Types of Common-Size Statements

❏ 1 Common-Size Income Statement

- Sales is taken as 100%.
- All expenses and profits are shown as a percentage of sales.

❏ 2 Common-Size Balance Sheet

- Total Assets (or Total Liabilities) are taken as 100%.
- Each asset, liability, and equity item is shown as a percentage of total.

□ Example (Income Statement)

Particulars	Amount (₹)	Percentage (%)
Net Sales	1,00,000	100%
Cost of Goods Sold	60,000	60%
Gross Profit	40,000	40%

□ Objectives

- To analyze financial structure
- To compare companies of different sizes
- To identify cost structure and trends
- To assist in financial planning

□ Advantages

- Easy comparison
- Useful for inter-firm comparison
- Highlights relative importance of each item

⚠ Limitations

- Based on historical data
- Does not show absolute figures
- May ignore qualitative factors

Common-size statements help in analyzing financial performance by converting financial data into percentage form, making comparison and interpretation easier.

❏ 4 Trend Analysis

Management Accounting

Trend Analysis is a technique of financial analysis that studies the pattern of financial data over several years to identify the direction of change (increasing, decreasing, or stable).

It is also known as **Horizontal Analysis** when comparing multiple years.

□ How Trend Analysis is Done

- 1 Select a **base year** (usually the earliest year).
- 2 Take the base year value as **100%**.
- 3 Express the figures of other years as a percentage of the base year.

□ Formula

$$\text{Trend Percentage} = \text{Current Year Value} / \text{Base Year Value} \times 100$$

□ Example

Year	Sales (₹)	Trend %
2021	1,00,000	100%
2022	1,20,000	120%
2023	1,50,000	150%

This shows a steady increase in sales over the years.

□ Objectives

- To identify long-term growth or decline
- To analyze performance trends
- To assist in forecasting
- To help in decision-making

□ Advantages

- Simple and easy to understand
- Highlights growth patterns
- Useful for planning and forecasting

⚠ Limitations

- Based on past data
- Affected by inflation
- Does not explain reasons for changes

Trend analysis helps in studying financial performance over time, making it easier to identify patterns and plan future strategies.

5 Cash Flow Analysis

Cash Flow Analysis is the process of examining the inflows and outflows of cash in a business during a specific period.

Management Accounting

It helps in understanding the company's **liquidity and cash position**.

□ Cash Flow Statement

A **Cash Flow Statement** shows the movement of cash under three main activities:

❶ Operating Activities

- Cash from core business operations
- Includes cash received from customers and cash paid for expenses

❷ Investing Activities

- Cash related to purchase or sale of long-term assets
- Example: Purchase of machinery, sale of land

❸ Financing Activities

- Cash related to capital and borrowings
- Example: Issue of shares, taking loans, payment of dividends

□ Objectives of Cash Flow Analysis

- To assess liquidity position
- To evaluate cash management
- To determine ability to pay debts
- To assist in financial planning

□ Importance

- Prevents cash shortages
- Helps in working capital management
- Improves financial control
- Useful for investors and creditors

⚠ Limitations

- Ignores non-cash transactions
- Based on historical data
- Does not show profitability directly

Cash flow analysis is an essential tool for evaluating the cash position and financial stability of a business.

Financial analysis and interpretation convert financial data into meaningful information, enabling better planning, control, and decision-making.

❺ Decision-Making Techniques

Management Accounting

Decision-making techniques are tools used in management accounting to help managers choose the best alternative among different options.

These techniques focus mainly on **cost, revenue, and profit analysis**.

□ Objectives

- To select the most profitable alternative
- To minimize cost and maximize profit
- To reduce risk and uncertainty
- To improve business efficiency

□ Major Decision-Making Techniques

1 Marginal Costing

- Considers only variable costs.
- Helps in short-term decisions.
- Used for pricing, product mix, and make-or-buy decisions.

□ Key Concept:

Contribution = Sales – Variable Cost

2 Break-Even Analysis (Cost-Volume-Profit Analysis)

- Determines the level of sales at which there is **no profit and no loss**.

□ Formula:

Break-Even Point = Fixed Cost / Contribution per Unit

3 Make or Buy Decision

- Decide whether to manufacture a product internally or purchase from outside.
- Compare relevant costs of both options.

4 Product Mix Decision

- Select the best combination of products when resources are limited.
- Based on contribution per limiting factor.

5 Capital Budgeting

- Evaluates long-term investment projects.
- Techniques include:
 - Payback Period
 - Net Present Value (NPV)
 - Internal Rate of Return (IRR)

6 Pricing Decisions

Management Accounting

- Decide selling price based on cost and demand.
- May use cost-plus pricing or marginal costing.

□ Importance

- Improves profitability
- Ensures optimal use of resources
- Supports strategic planning
- Helps management take rational decisions

Decision-making techniques provide scientific and systematic methods to help management choose the best course of action for business success.

6 Performance Evaluation and Control

Performance Evaluation and Control is a process in management accounting that measures actual performance, compares it with planned targets, and takes corrective action if necessary. It ensures that organizational goals are achieved efficiently.

□ Objectives

- To measure efficiency of departments and employees
- To compare actual performance with standards or budgets
- To identify deviations (variances)
- To take corrective action
- To improve overall organizational performance

□ Main Tools Used

1 Budgetary Control

- Compare actual results with budgeted figures.
- Identify differences and take corrective measures.

2 Standard Costing and Variance Analysis

- Compare actual cost with standard cost.
- Analyze material, labour, and overhead variances.

3 Responsibility Accounting

- Assign responsibility to managers for specific areas.
- Evaluate performance based on controllable factors.

4 Ratio Analysis

- Use financial ratios to measure profitability, liquidity, and efficiency.

5 Performance Reports

- Prepare periodic reports for management review.

□ Importance

- Improves accountability
- Controls costs and expenses
- Motivates employees
- Ensures efficient use of resources
- Helps achieve organizational goals

Performance evaluation and control help management monitor activities, correct deviations, and ensure that business objectives are achieved effectively.

7 Capital Budgeting

Capital Budgeting is the process of evaluating and selecting long-term investment projects that involve large amounts of funds.

It helps management decide whether to invest in projects such as:

- Purchase of machinery
- Expansion of business
- Launching a new product
- Replacement of old equipment

□ Objectives

- To select profitable investment projects
- To maximize shareholders' wealth
- To ensure efficient use of capital
- To reduce investment risk
- To plan long-term growth

□ Features of Capital Budgeting

- Involves large financial investment
- Long-term impact on business
- Based on future cash flows
- Involves risk and uncertainty
- Difficult to reverse decisions

□ Methods of Capital Budgeting

1 Payback Period Method

- Measures the time required to recover the initial investment.

- Simple and easy to calculate.

2 Accounting Rate of Return (ARR)

- Measures average profit as a percentage of investment.

3 Net Present Value (NPV)

- Calculates present value of future cash inflows minus initial investment.
- Accept project if NPV is positive.

4 Internal Rate of Return (IRR)

- The discount rate at which NPV becomes zero.
- Accept project if IRR is higher than required rate of return.

5 Profitability Index (PI)

- Ratio of present value of cash inflows to initial investment.
- Accept project if $PI > 1$.

□ Importance

- Helps in long-term planning
- Increases profitability
- Improves competitive position
- Ensures optimal allocation of resources

Capital budgeting is an essential decision-making tool that helps management evaluate long-term investment opportunities and select the most profitable projects.

8 Tax Planning and Policy Formulation

Tax Planning and Policy Formulation is an important area of management accounting that focuses on legally minimizing tax liability and developing financial policies to achieve business objectives.

- **Tax Planning** → Arranging financial activities in such a way that tax burden is reduced within the framework of law.
- **Policy Formulation** → Designing financial and operational policies for effective management and long-term growth.

Objectives

- To reduce tax liability legally
- To maximize after-tax profit
- To ensure compliance with tax laws
- To plan financial decisions efficiently
- To support long-term business strategies

Scope of Tax Planning

Investment Decisions

- Choosing tax-saving investment options
- Evaluating tax benefits on capital expenditure

2 Financing Decisions

- Deciding between debt and equity (interest on debt is tax-deductible).

3 Depreciation Policies

- Selecting appropriate depreciation methods to reduce taxable income.

4 Timing of Income and Expenses

- Planning timing of transactions to optimize tax benefits.

Policy Formulation Includes

- Dividend policy
- Capital structure policy
- Pricing policy
- Credit policy
- Investment policy

Importance

- Improves profitability
- Avoids legal penalties
- Supports financial planning
- Strengthens strategic management

Tax planning and policy formulation help management reduce tax burden legally and develop effective financial strategies for sustainable growth. The scope of management accounting is comprehensive and dynamic. It supports management at all levels by providing relevant, timely, and analytical information for better decision-making and overall organizational success.

In today's competitive and dynamic business environment, **management accounting** plays a crucial role in helping organizations survive and grow. It provides systematic, analytical, and forward-looking information that supports managerial functions such as **planning, organizing, directing, and controlling**.

Its importance extends beyond mere cost calculation—it acts as a **decision-support system** for management at all levels.

Importance

❏ 1 Aids in Effective Planning

Planning is the primary function of management. Management accounting provides forecasts, budgets, and financial projections that help in setting realistic goals.

- Sales forecasting estimates future demand.
 - Production planning ensures adequate output.
 - Budget preparation allocates resources efficiently.
- ❑ Without proper planning, business activities become uncertain and uncoordinated.

❏ 2 Supports Rational Decision-Making

Management accounting supplies relevant cost and revenue data for evaluating alternatives.

- Make or buy decisions
- Pricing decisions
- Product mix decisions
- Expansion or shutdown decisions

Techniques such as marginal costing, break-even analysis, and capital budgeting help managers choose the most profitable course of action.

❏ 3 Improves Cost Control and Cost Reduction

One of the major contributions of management accounting is cost control.

- Identifies wastage and inefficiencies.
- Uses standard costing and variance analysis to monitor performance.
- Encourages cost reduction without affecting quality.

This directly improves profitability.

❏ 4 Enhances Performance Measurement

Management accounting establishes performance standards and compares actual results with targets.

- Identifies favourable and unfavourable variances.
- Promotes accountability through responsibility accounting.
- Motivates employees by linking performance with evaluation.

❏ 5 Facilitates Coordination Among Departments

Different departments such as sales, production, and finance must work in harmony.

- Budgets act as a coordination tool.
- Ensures that production matches sales forecasts.
- Prevents duplication of work and resource wastage.

6 Maximizes Profit and Shareholder Value

By controlling costs and improving efficiency, management accounting contributes to higher profits.

- Helps select profitable projects.
- Guides investment decisions.
- Improves return on capital employed.

7 Strengthens Financial Control

- Monitors cash flow and working capital.
- Maintains liquidity and solvency.
- Prevents financial crises.

It ensures long-term financial stability of the organization.

8 Assists in Strategic Planning

Management accounting provides data for long-term policy decisions.

- Capital structure decisions
- Dividend policy
- Investment strategy
- Competitive positioning

It helps management respond effectively to changing market conditions.

9 Reduces Business Risk and Uncertainty

Through forecasting and trend analysis, management accounting helps anticipate future risks.

- Predicts demand fluctuations
- Assesses financial risks
- Supports contingency planning

Management accounting is an essential tool for modern management. It integrates financial and non-financial information to enhance planning, control, coordination, and decision-making. By improving efficiency and supporting strategic growth, it ensures long-term organizational success.

Limitations

Management accounting is very useful for planning, decision-making, and control, it has certain limitations. These limitations reduce its effectiveness in some situations.

Management Accounting

▲ Main Limitations

❏ 1 Based on Financial and Historical Data

- Many techniques rely on past data.
- Past trends may not always predict future conditions accurately.

❏ 2 Dependence on Estimates and Assumptions

- Forecasts and budgets are based on assumptions.
- Incorrect assumptions can lead to wrong decisions.

❏ 3 Costly System

- Requires skilled staff and proper accounting systems.
- Small businesses may find it expensive to implement.

❏ 4 Complexity

- Techniques like capital budgeting and variance analysis can be complex.
- Managers without proper training may misinterpret data.

❏ 5 Not a Substitute for Management

- Provides information but does not make decisions.
- Final decisions depend on managerial judgment.

❏ 6 Possibility of Biased Interpretation

- Data interpretation may vary from person to person.
- Wrong analysis can mislead management.

❏ 7 Limited Use in Small Businesses

- More suitable for large and medium-sized enterprises.
- Small firms may not require detailed analysis.

❏ 8 Focus on Quantitative Data

- Mostly considers numerical data.
- Ignores qualitative factors like employee morale and brand value.

While management accounting is an important decision-making tool, it has limitations such as reliance on estimates, complexity, and cost. Therefore, it should be used along with managerial experience and sound judgment.

Management accounting vs Cost Accounting

- **Management Accounting:** Provides financial *and* non-financial information to managers for planning, control and decision-making. (Internal use; forward-looking.)

Management Accounting

- **Cost Accounting:** Focuses on determining, analysing and controlling the **costs** of products, services, jobs or processes. (Often a subset of management accounting; cost- focused.)

Side-by-side comparison

Aspect	Management Accounting	Cost Accounting
Primary purpose	Support managerial planning, control & decision-making	Determine & control product/service cost; assist pricing & cost control
Main focus	Profitability, performance, budgets, forecasts, KPIs	Materials, labour, overheads, cost per unit, cost allocation
Users	Internal management at all levels	Production managers, cost accountants, controllers (internal)
Time orientation	Future (forward-looking) and present	Past & present (used for current control and future costing too)
Scope	Broad: financial + non-financial, strategic & operational	Narrower: all matters relating to cost measurement & control
Reports produced	Budgets, forecasts, variance reports, performance reports, KPIs	Cost sheets, job/process cost statements, standard costing reports, variances
Techniques	Budgeting, forecasting, CVP, capital budgeting, ratio & trend analysis	Job costing, process costing, standard costing, ABC, variance analysis
Level of detail	Can be high or summary depending on managerial needs	Typically very detailed (per job/product/process)
Legal/standard requirement	Not mandatory; format flexible	Not mandatory; but methods must be logical and consistent
Orientation	Decision-support and strategy	Cost determination and control

Management Accounting

Relation	Encompasses cost accounting as one of its tools	Often considered a component of management accounting
Example outputs	Budgeted profit, segment performance, NPV of projects	Cost per unit ₹120, material variance ₹5,000 U

When to use which?

- Use **cost accounting** when you need precise product/job cost, to calculate unit cost or to control manufacturing costs.
- Use **management accounting** when you need information to set strategy, prepare budgets, evaluate departments, or decide on investments/pricing.

Management Accounting Vs Financial Accounting

- **Management Accounting** provides financial and non-financial information to management for planning, control, and decision-making.
- **Financial Accounting** records, summarizes, and reports financial transactions to external users in the form of financial statements.

□ Comparison Table

Basis	Management Accounting	Financial Accounting
Purpose	Assists in planning and decision-making	Reports financial performance and position
Users	Internal management	External users (investors, creditors, government)
Focus	Future-oriented	Past-oriented (historical data)
Nature of Data	Financial and non-financial	Only financial (monetary) data
Scope	Detailed, departmental	Overall business performance
Legal Requirement	Not compulsory	Compulsory for companies
Flexibility	Flexible format	Must follow accounting standards
Time Period	As needed (monthly/weekly)	Usually annual or quarterly

Management Accounting

Confidentiality	Highly confidential	Published and publicly available
Decision-Making Role	Direct support for managerial decisions	Limited role in internal decisions

□ Key Differences Explained 1

Objective

Management accounting focuses on **future planning**, while financial accounting focuses on **recording past transactions**. 2

Users

Management accounting is used by managers inside the organization. Financial accounting is prepared for external parties.

3 Regulations

Financial accounting must follow accounting standards and legal requirements. Management accounting has no strict rules and is flexible.

Management accounting and financial accounting serve different purposes. While financial accounting provides historical financial information to external users, management accounting provides detailed and forward-looking information to help managers make effective decisions.

Analysis is and Interpretation of Financial Statements

Analysis of Financial Statements is the process of examining financial data (like Profit & Loss Account and Balance Sheet) to understand the financial performance and position of a business.

Interpretation of Financial Statements means explaining the significance and meaning of the analyzed data to draw s and make decisions.

□ In simple words:

- **Analysis** = Breaking down financial data.
- **Interpretation** = Explaining what that data means.

□ Objectives

The **objectives of analysis and interpretation of financial statements** are to evaluate the financial performance and position of a business and to provide useful information for decision-making.

□ Main Objectives

❶ To Measure Profitability

- Determine earning capacity of the business.
- Analyze gross profit, net profit, and return on investment.

❷ To Assess Liquidity

- Evaluate the ability to meet short-term obligations.
- Use ratios like current ratio and quick ratio.

❸ To Examine Solvency

- Assess long-term financial stability.
- Analyze debt-equity ratio and interest coverage ratio.

❹ To Evaluate Operational Efficiency

- Measure how effectively assets and resources are used.
- Study turnover ratios.

❺ To Compare Performance

- Compare present performance with past years.
- Compare performance with competitors.

❻ To Identify Strengths and Weaknesses

- Highlight strong financial areas.
- Identify weak areas requiring improvement.

❼ To Assist in Decision-Making

- Help management in planning and control.
- Assist investors and creditors in economic decisions.

❽ To Support Forecasting

- Use trend analysis to predict future performance.
- Aid in strategic planning.

The main objective of financial statement analysis and interpretation is to transform financial data into meaningful information that supports effective planning, control, and decision-making.

Nature of analysis and interpretation of financial statements

The **nature of analysis and interpretation of financial statements** explains its characteristics and how it functions as a tool for evaluating financial performance and position. It is both **analytical and interpretative** in character.

Management Accounting

□ Main Features / Nature

1 Analytical in Nature

- Breaks down financial data into meaningful components.
- Studies relationships between various items in financial statements.

2 Interpretative in Nature

- Explains the meaning and significance of financial data.
- Helps in drawing s from analysis.

3 Based on Financial Statements

- Uses Balance Sheet, Profit & Loss Account, and Cash Flow Statement.
- Depends on accuracy of accounting records.

4 Comparative in Nature

- Compares financial data of different years.
- Allows inter-firm comparison.

5 Quantitative Approach

- Based on numerical data and ratios.
- Uses statistical and mathematical tools.

6 Decision-Oriented

- Assists management, investors, and creditors in decision-making.
- Supports planning and control.

7 Dynamic Process

- Continuous evaluation over time.
- Not a one-time activity.

The nature of analysis and interpretation of financial statements is analytical, comparative, and decision-oriented. It transforms financial data into useful information for evaluating performance and making sound business decisions.

□ Tools of Analysis

1 Ratio Analysis

Calculates financial ratios to measure performance

2 Comparative Financial Statements

Compare financial data of different years.

3 Common-Size Statements

Express items as percentages for better comparison.

4 Trend Analysis

Study financial data over several years to identify patterns.

5 Cash Flow Analysis

Examine inflow and outflow of cash.

□ Importance

The **importance of analysis and interpretation of financial statements** lies in converting raw financial data into meaningful information. It helps management, investors, creditors, and other stakeholders understand the financial health and performance of a business.

Main Importance

1 Evaluates Profitability

- Helps determine earning capacity of the business.
- Analyzes gross profit, net profit, and return on investment.

2 Assesses Liquidity Position

- Measures ability to meet short-term obligations.
- Prevents liquidity problems.

3 Examines Solvency

- Evaluates long-term financial stability.
- Assesses debt-paying capacity.

4 Measures Operational Efficiency

- Analyzes how effectively resources are utilized.
- Uses turnover ratios and efficiency ratios.

5 Helps in Decision-Making

- Assists management in planning and control.
- Helps investors decide whether to invest.
- Guides creditors in granting loans.

6 Facilitates Comparison

- Compares performance with previous years.
- Allows inter-firm comparison within the industry.

7 Identifies Strengths and Weaknesses

- Highlights strong financial areas.
- Points out weak areas needing improvement.

8 Assists in Forecasting

- Trend analysis helps predict future performance.
- Supports strategic planning.

Management Accounting

Analysis and interpretation of financial statements are essential for understanding business performance, improving financial control, and making sound economic decisions.

⚠ Limitations

Although analysis and interpretation of financial statements are very useful, they have certain limitations. These limitations may reduce the reliability and effectiveness of the s drawn.

□ Main Limitations

❶ Based on Historical Data

- Financial statements are prepared using past data.
- Past performance may not always indicate future results.

❷ Affected by Accounting Policies

- Different companies may use different accounting methods.
- This reduces comparability between firms.

❸ Ignores Qualitative Factors

- Non-financial factors like employee morale, brand reputation, and market competition are not considered.

❹ Influence of Inflation

- Financial statements are prepared at historical cost.
- Changes in price levels are not reflected.

❺ Possibility of Manipulation

- Window dressing of accounts can mislead users.
- Inaccurate or biased data affects analysis.

❻ Limited Scope

- Focuses mainly on financial information.
- Does not provide complete insight into business operations.

❼ Requires Expert Knowledge

- Proper interpretation requires skill and experience.
- Wrong analysis may lead to incorrect decisions.

While financial statement analysis is an important tool for evaluating business performance, it has limitations such as reliance on historical data, accounting policies, and lack of qualitative information. Therefore, it should be used carefully along with other information.

Analysis and interpretation of financial statements convert accounting data into meaningful information, helping management and stakeholders make informed financial decisions.

Types of Financial Analysis

Financial analysis can be classified into different types based on **method, time period, and users**. These classifications help in understanding financial performance from various perspectives.

Based on Method of Analysis

☐ (a) Horizontal Analysis

- Compares financial data of two or more years.
- Shows increase or decrease in amounts.
- Also known as **Comparative Analysis**.

☐ Example: Comparing sales of 2022 and 2023.

☐ (b) Vertical Analysis

- Each item is expressed as a percentage of a base figure.
- Also known as **Common-Size Analysis**.

☐ Example: Expenses as a percentage of sales.

Based on Time Period

☐ (a) Short-Term Analysis

- Focuses on liquidity and working capital.
- Uses liquidity ratios.

☐ (b) Long-Term Analysis

- Focuses on solvency and financial stability.
- Uses solvency ratios.

Based on Users

☐ (a) Internal Analysis

- Conducted by management.
- Uses detailed accounting records.

☐ (b) External Analysis

- Conducted by investors, creditors, and analysts.
- Based only on published financial statements.

Based on Tools Used

- Ratio Analysis
 - Trend Analysis
 - Comparative Statements
 - Common-Size Statements
 - Cash Flow Analysis
-

Management Accounting

Financial analysis can be classified into various types depending on method, time, and user. Each type helps in evaluating financial performance and position from a different angle.

Comparative Statements

Comparative Statements are financial statements in which the figures of two or more accounting periods are presented side by side to facilitate comparison.

They show:

- Absolute change (increase/decrease)
 - Percentage change
- ☐ They help in analyzing growth, decline, and financial trends over time.

☐ Types of Comparative Statements

☐ 1 Comparative Income Statement

☐ 2 Comparative Balance Sheet

Comparative Income Statement

☐ Meaning

A statement that shows **income and expenses of two or more years side by side** to analyze profitability trends

Illustration

Income Statement Data

Particulars	2022 (₹)	2023 (₹)
Sales	2,00,000	2,50,000
Cost of Goods Sold	1,20,000	1,50,000
Gross Profit	80,000	1,00,000
Operating Expenses	30,000	40,000
Net Profit	50,000	60,000

☐ Solution

Step 1: Calculate Increase/Decrease

Increase = Year 2 – Year 1

Step 2: Calculate Percentage Change

Percentage Change = (Increase ÷ Base Year) × 100

☐ Comparative Income Statement

Particulars	2022	2023	Increase	% Change
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Management Accounting

Sales	2,00,000	2,50,000	50,000	25%
COGS	1,20,000	1,50,000	30,000	25%
Gross Profit	80,000	1,00,000	20,000	25%
Operating Expenses	30,000	40,000	10,000	33.33%
Net Profit	50,000	60,000	10,000	20%

Given Data

Particulars	2022 (₹)	2023 (₹)
Sales	3,00,000	3,60,000
Cost of Goods Sold	1,80,000	2,10,000
Gross Profit	1,20,000	1,50,000
Operating Expenses	50,000	60,000
Net Profit	70,000	90,000

☐ Solution

Formula:

Percentage Change = (Increase ÷ Base Year) × 100

Particulars	2022	2023	Increase	% Change
Sales	3,00,000	3,60,000	60,000	20%
COGS	1,80,000	2,10,000	30,000	16.67%
Gross Profit	1,20,000	1,50,000	30,000	25%
Operating Exp.	50,000	60,000	10,000	20%
Net Profit	70,000	90,000	20,000	28.57%

☐ Interpretation: Net profit increased at a higher rate than sales, showing improved profitability.

✓ Illustration 2

☐ Given Data

Particulars	2022 (₹)	2023 (₹)
Sales	5,00,000	4,50,000
Cost of Goods Sold	3,00,000	2,80,000
Gross Profit	2,00,000	1,70,000
Operating Expenses	80,000	90,000
Net Profit	1,20,000	80,000

☐ Solution

Management Accounting

Particulars	2022	2023	Increase/Decrease	% Change
Sales	5,00,000	4,50,000	(50,000)	-10%
COGS	3,00,000	2,80,000	(20,000)	-6.67%
Gross Profit	2,00,000	1,70,000	(30,000)	-15%
Operating Exp.	80,000	90,000	10,000	12.5%
Net Profit	1,20,000	80,000	(40,000)	-33.33%

□ Interpretation: Sales declined and expenses increased, resulting in a sharp fall in net profit.

Comparative Balance Sheet

□ Meaning

A statement that shows **assets and liabilities of two years side by side** to analyze financial position

□ Illustration

Balance Sheet Data

Particulars	2022 (₹)	2023 (₹)
Fixed Assets	3,00,000	3,50,000
Current Assets	1,50,000	1,80,000
Total Assets	4,50,000	5,30,000
Share Capital	2,50,000	3,00,000
Liabilities	2,00,000	2,30,000

□ Solution

□ Comparative Balance Sheet

Particulars	2022	2023	Increase	% Change
Fixed Assets	3,00,000	3,50,000	50,000	16.67%
Current Assets	1,50,000	1,80,000	30,000	20%
Total Assets	4,50,000	5,30,000	80,000	17.78%
Share Capital	2,50,000	3,00,000	50,000	20%
Liabilities	2,00,000	2,30,000	30,000	15%

A **Comparative Balance Sheet** is a statement that presents the assets and liabilities of two or more years side by side to show changes in the financial position of a business.

It highlights:

- Increase or decrease in assets and liabilities
- Percentage change
- Trend in financial stability

Management Accounting

□ Illustration 1

□ Given Data

Particulars	2022 (₹)	2023 (₹)
Fixed Assets	4,00,000	4,80,000
Current Assets	2,00,000	2,40,000
Total Assets	6,00,000	7,20,000
Share Capital	3,50,000	4,00,000
Long-term Liabilities	1,50,000	1,80,000
Current Liabilities	1,00,000	1,40,000

□ Solution

Particulars	2022	2023	Increase	% Change
Fixed Assets	4,00,000	4,80,000	80,000	20%
Current Assets	2,00,000	2,40,000	40,000	20%
Total Assets	6,00,000	7,20,000	1,20,000	20%
Share Capital	3,50,000	4,00,000	50,000	14.29%
Long-term Liab.	1,50,000	1,80,000	30,000	20%
Current Liab.	1,00,000	1,40,000	40,000	40%

□ Interpretation: Assets increased by 20%, but current liabilities increased by 40%, indicating possible liquidity pressure.

□ Illustration 2

□ Given Data

Particulars	2022	2023
Fixed Assets	5,00,000	4,50,000
Current Assets	3,00,000	2,70,000
Total Assets	8,00,000	7,20,000
Share Capital	4,00,000	4,00,000
Long-term Liabilities	2,00,000	1,80,000
Current Liabilities	2,00,000	1,40,000

□ Solution

Particulars	2022	2023	Increase/Decrease	% Change
Fixed Assets	5,00,000	4,50,000	(50,000)	-10%
Current Assets	3,00,000	2,70,000	(30,000)	-10%

Management Accounting

Total Assets	8,00,000	7,20,000	(80,000)	-10%
Share Capital	4,00,000	4,00,000	—	0%
Long-term Liab.	2,00,000	1,80,000	(20,000)	-10%
Current Liab.	2,00,000	1,40,000	(60,000)	-30%

□ Interpretation: Assets decreased by 10%, but current liabilities reduced significantly (30%), which may improve liquidity.

- ✓ Comparative Income Statement → Analyzes profitability
- ✓ Comparative Balance Sheet → Analyzes financial position
- ✓ Always calculate absolute change and percentage change
- ✓ Base year = Previous year

Comparative statements help in understanding financial growth, trends, and changes in performance. Proper calculation and interpretation make them powerful tools of financial analysis.

□ Advantages of Comparative Statements

Comparative statements present financial data of two or more years side by side. They help in analyzing changes in financial performance and position over time.

□ Main Advantages

❶ Easy Comparison

- Enables comparison of financial data of different years.
- Clearly shows increase or decrease in figures.

❷ Identifies Trends

- Helps in identifying growth or decline in sales, profit, assets, etc.
- Useful for studying long-term trends.

❸ Highlights Strengths and Weaknesses

- Reveals areas where performance has improved.
- Identifies weak areas needing corrective action.

❹ Assists in Decision-Making

- Provides valuable information for planning and control.
- Helps management take informed decisions.

❺ Facilitates Performance Evaluation

- Measures efficiency by comparing past and present performance.
- Helps in setting future targets.

6 Useful for Investors and Creditors

- Helps assess financial stability and growth.
- Supports investment and lending decisions.

7 Simple and Easy to Understand

- Easy to prepare and interpret.
- Suitable for quick financial review.

Comparative statements are powerful tools for financial analysis. They help in evaluating business performance over time and support effective managerial and investment decisions.

⚠ Limitations of Comparative Statements

Although comparative statements are useful for analyzing financial performance over time, they have certain limitations that may affect their reliability.

□ Main Limitations

1 Based on Historical Data

- Uses past financial information.
- Past trends may not accurately predict future performance.

2 Inflation Not Considered

- Financial data is recorded at historical cost.
- Price level changes are ignored, which may distort real growth.

3 Difference in Accounting Policies

- Changes in depreciation methods, inventory valuation, etc., affect comparability.
- Makes year-to-year comparison less accurate.

4 Does Not Show Reasons for Changes

- Shows increase or decrease in figures.
- Does not explain the cause of such changes.

5 Limited to Quantitative Data

- Only numerical information is considered.
- Ignores qualitative factors like employee efficiency, market reputation, etc.

6 Effect of Business Expansion or Merger

- Changes in size of business may distort comparison.

Comparative statements are helpful tools for financial analysis, but they have limitations such as reliance on past data, inflation effects, and accounting policy differences. Proper interpretation is necessary for accurate s.

! Problems in Preparing Comparative Statements

While preparing **Comparative Statements**, certain practical difficulties may arise. These problems can affect the accuracy and reliability of comparison between different years.

□ Main Problems

1 Change in Accounting Policies

- Different methods of depreciation (SLM vs WDV).
 - Change in inventory valuation (FIFO, LIFO, Weighted Average).
- This reduces comparability between years.

2 Effect of Inflation

- Financial statements are prepared at historical cost.
- Price level changes distort real growth.

3 Reclassification of Items

- Items may be grouped differently in different years.
- Example: An expense shown under “Administrative Expenses” in one year may appear separately in another year.

4 Business Expansion or Merger

- Increase in capital, assets, or turnover due to expansion.
- Makes comparison unfair or misleading.

5 Window Dressing

- Manipulation of financial statements to show better results.
- Misleads analysis.

6 Change in Accounting Period

- Financial year may change (e.g., 12 months to 15 months).
- Affects comparability.

7 Lack of Detailed Information

- External users depend only on published data.
- Limited access to internal details reduces depth of analysis.

Preparing comparative statements may face issues like changes in accounting methods, inflation, reclassification of items, and business expansion. Therefore, careful adjustments and proper interpretation are necessary for meaningful comparison.

✓Solutions to Problems

Comparative statements may face problems such as changes in accounting policies, inflation, or business expansion. These issues can be minimized by applying proper corrective measures.

❏ 1 Maintain Consistency in Accounting Policies

- Use the same methods of depreciation and inventory valuation each year.
- Follow the **consistency principle**.
- If changes are necessary, clearly disclose them.

❏ 2 Make Adjustments for Inflation

- Use price index adjustments when required.
- Consider inflation-adjusted statements for accurate comparison.

❏ 3 Ensure Uniform Classification

- Present items under the same headings every year.
- Avoid unnecessary regrouping of accounts.

❏ 4 Disclose Changes Clearly

- Provide proper notes for mergers, expansion, or restructuring.
- Explain reasons for major increases or decreases.

❏ 5 Adjust for Change in Accounting Period

- Convert figures to comparable time periods (e.g., adjust 15-month data to 12 months).

❏ 6 Use Additional Analytical Tools

- Combine comparative statements with ratio analysis and trend analysis for deeper insight.

❏ 7 Avoid Window Dressing

- Ensure transparency and ethical accounting practices.
- Follow accounting standards strictly.

Problems in preparing comparative statements can be overcome through consistency, proper disclosure, inflation adjustments, and careful interpretation. These measures ensure meaningful and reliable comparison of financial data.

Comparative statements are useful tools for analyzing financial performance over time. However, their effectiveness depends on consistency, proper adjustments, and careful interpretation.

Management Accounting

Difference between Comparative Income Statement and Comparative Balance Sheet

Basis	Comparative Income Statement	Comparative Balance Sheet
Purpose	To analyze profitability	To analyze financial position
Focus	Revenue and expenses	Assets, liabilities & capital
Time Nature	Covers a period of time (e.g., 1 year)	Shows position at a specific date
Measures	Gross profit, net profit, operating profit	Liquidity, solvency, financial stability
Main Items	Sales, COGS, expenses, profit	Fixed assets, current assets, liabilities, equity
Usefulness	Helps evaluate operational performance	Helps assess financial strength
Result Indicates	Profit or loss trend	Increase/decrease in assets & liabilities

□ Key Point

- Income Statement → Shows **performance over a period**
- Balance Sheet → Shows **financial position on a particular date**

Both statements are important tools of financial analysis. The comparative income statement focuses on profitability trends, while the comparative balance sheet focuses on changes in financial position and stability.

Common-Size Statement

A **Common-Size Statement** is a financial statement in which each item is expressed as a **percentage of a common base figure**.

It is also known as **Vertical Analysis**.

- In the **Income Statement**, each item is shown as a percentage of **Net Sales (100%)**.
- In the **Balance Sheet**, each item is shown as a percentage of **Total Assets or Total Liabilities (100%)**.

□ Types of Common-Size Statements

① Common-Size Income Statement

- Net Sales = 100%
- All expenses and profits are shown as a percentage of sales.

Management Accounting

A **Common-Size Income Statement** is a statement in which each item of the income statement is expressed as a **percentage of Net Sales**.

Here, **Net Sales is taken as 100%**, and all other items are shown as a proportion of sales.

It is also known as **Vertical Analysis of Income Statement**.

□ Formula

Percentage of any item = (Item ÷ Net Sales) × 100

□ Format

Particulars Amount (₹) % of Net Sales

□ Illustration with Solution

Given Data

Particulars	Amount (₹)
Net Sales	2,00,000
Cost of Goods Sold	1,20,000
Gross Profit	80,000
Operating Expenses	30,000
Net Profit	50,000

□ Calculation

Net Sales = 100%

COGS % = $(1,20,000 \div 2,00,000) \times 100 = 60\%$

Gross Profit % = $(80,000 \div 2,00,000) \times 100 = 40\%$

Operating Expenses % = $(30,000 \div 2,00,000) \times 100 = 15\%$

Net Profit % = $(50,000 \div 2,00,000) \times 100 = 25\%$

□ Common-Size Income Statement

Particulars	Amount (₹)	% of Sales
Net Sales	2,00,000	100%
Cost of Goods Sold	1,20,000	60%
Gross Profit	80,000	40%
Operating Expenses	30,000	15%
Net Profit	50,000	25%

Given Data

Management Accounting

Particulars	Amount (₹)
Net Sales	5,00,000
Cost of Goods Sold	3,00,000
Gross Profit	2,00,000
Operating Expenses	1,20,000
Net Profit	80,000

☐ Calculation

Formula:

Percentage = (Item ÷ Net Sales) × 100

- $\text{COGS \%} = (3,00,000 \div 5,00,000) \times 100 = 60\%$
- $\text{Gross Profit \%} = (2,00,000 \div 5,00,000) \times 100 = 40\%$
- $\text{Operating Expenses \%} = (1,20,000 \div 5,00,000) \times 100 = 24\%$
- $\text{Net Profit \%} = (80,000 \div 5,00,000) \times 100 = 16\%$

☐ Common-Size Income Statement

Particulars	Amount (₹)	% of Sales
Net Sales	5,00,000	100%
Cost of Goods Sold	3,00,000	60%
Gross Profit	2,00,000	40%
Operating Expenses	1,20,000	24%
Net Profit	80,000	16%

☐ Interpretation: Company earns 16% net profit on sales.

☒ Illustration 2

☐ Given Data

Particulars	Amount (₹)
Net Sales	8,00,000
Cost of Goods Sold	4,80,000
Gross Profit	3,20,000
Administrative Expenses	1,00,000
Selling Expenses	80,000
Net Profit	1,40,000

☐ Calculation

- $\text{COGS \%} = (4,80,000 \div 8,00,000) \times 100 = 60\%$

Management Accounting

- Gross Profit % = 40%
- Administrative Exp. % = 12.5%
- Selling Exp. % = 10%
- Net Profit % = 17.5%

☐ Common-Size Income Statement

Particulars	Amount (₹)	% of Sales
Net Sales	8,00,000	100%
Cost of Goods Sold	4,80,000	60%
Gross Profit	3,20,000	40%
Administrative Exp.	1,00,000	12.5%
Selling Exp.	80,000	10%
Net Profit	1,40,000	17.5%

☐ Interpretation: After covering expenses (22.5%), the company retains 17.5% profit.

✓ Illustration 3 (With Decrease in Profit Margin)

☐ Given Data

Particulars	Amount (₹)
Net Sales	10,00,000
Cost of Goods Sold	7,00,000
Gross Profit	3,00,000
Operating Expenses	2,20,000
Net Profit	80,000

☐ Calculation

- COGS % = 70%
- Gross Profit % = 30%
- Operating Exp. % = 22%
- Net Profit % = 8%

☐ Common-Size Income Statement

Particulars	Amount (₹)	% of Sales
Net Sales	10,00,000	100%
Cost of Goods Sold	7,00,000	70%
Gross Profit	3,00,000	30%

Management Accounting

Operating Expenses	2,20,000	22%
Net Profit	80,000	8%

□ Interpretation: High cost and expenses reduced net profit margin to 8%.

□ Objectives

The **objectives of a Common-Size Income Statement** are to analyze the relationship between various expenses and profits with net sales and to understand the cost structure of a business.

□ Main Objectives

❶ To Analyze Cost Structure

- Shows what percentage of sales is spent on cost of goods sold and expenses.
- Helps understand expense pattern.

❷ To Measure Profitability

- Determines gross profit and net profit as a percentage of sales.
- Evaluates earning capacity.

❸ To Facilitate Comparison

- Helps compare companies of different sizes.
- Enables inter-firm and intra-firm comparison.

❹ To Identify Efficiency

- Reveals whether expenses are increasing or decreasing proportionately.
- Assists in cost control.

❺ To Support Decision-Making

- Helps management in pricing and cost control decisions.
- Assists in improving profit margins.

❻ To Detect Strengths and Weaknesses

- Identifies areas where costs are high.
- Highlights improvement in profit margins.

The main objective of a Common-Size Income Statement is to convert financial data into percentage form to analyze cost structure, profitability, and operational efficiency more effectively.

□ Advantages

A **Common-Size Income Statement** presents each item as a percentage of Net Sales (100%). This makes analysis and comparison easier and more meaningful.

Management Accounting

□ Main Advantages

❏ 1 Easy to Understand

- Converts figures into percentages.
- Simplifies financial analysis.

❏ 2 Facilitates Comparison

- Useful for comparing companies of different sizes.
- Enables year-to-year comparison within the same company.

❏ 3 Helps in Analyzing Cost Structure

- Shows proportion of cost of goods sold and expenses.
- Highlights areas of high cost.

❏ 4 Measures Profitability Clearly

- Shows gross profit and net profit as a percentage of sales.
- Helps evaluate profit margins.

❏ 5 Assists in Decision-Making

- Helps management control expenses.
- Supports pricing and budgeting decisions.

❏ 6 Identifies Operational Efficiency

- Reveals whether expenses are increasing disproportionately.
- Helps improve performance.

The Common-Size Income Statement is a useful tool for analyzing profitability and cost structure, making comparison simple and effective.

⚠ Limitations

- Ignores absolute figures

Although a **Common-Size Income Statement** is useful for analysis and comparison, it has certain limitations that may affect its reliability and usefulness.

⚠ Main Limitations

❏ 1 Ignores Absolute Figures

- Shows only percentages.
- Large and small companies may appear similar in percentage terms but differ greatly in actual amounts.

❏ 2 Based on Historical Data

- Uses past financial information.
- Past trends may not reflect future performance.

3 Affected by Accounting Policies

- Differences in depreciation methods or inventory valuation affect comparability.
- Makes inter-firm comparison less accurate.

4 Inflation Not Considered

- Financial data is based on historical cost.
- Price level changes are ignored.

5 Does Not Explain Reasons for Changes

- Shows proportion of expenses and profit.
- Does not explain why changes occurred.

6 Limited to Quantitative Data

- Focuses only on numerical data.
- Ignores qualitative factors like market conditions or employee efficiency.

While the Common-Size Income Statement simplifies comparison and analysis, it has limitations such as ignoring absolute figures, inflation effects, and qualitative factors. Proper interpretation is essential for meaningful s.

A Common-Size Income Statement helps in analyzing the proportion of expenses and profits relative to sales, making financial comparison simple and effective.

2 Common-Size Balance Sheet

- Total Assets (or Total Liabilities) = 100%
- Each asset and liability is expressed as a percentage of total.

□ Formula

For Income Statement:

$$\text{Percentage} = (\text{Item} \div \text{Net Sales}) \times 100$$

For Balance Sheet:

$$\text{Percentage} = (\text{Item} \div \text{Total Assets}) \times 100$$

A **Common-Size Balance Sheet** is a balance sheet in which each item of assets, liabilities, and equity is expressed as a **percentage of Total Assets (or Total Liabilities)**.

Here, **Total Assets = 100%** and **Total Liabilities = 100%**.

It is also called **Vertical Analysis of Balance Sheet**.

□ Formula

$$\text{Percentage of any item} = (\text{Item} \div \text{Total Assets}) \times 100$$

(or)

$$\text{Percentage of any item} = (\text{Item} \div \text{Total Liabilities}) \times 100$$

Management Accounting

□ Format

Particulars Amount (₹) % of Total

□ Illustration with Solution

□ Given Data

Particulars	Amount (₹)
Fixed Assets	4,00,000
Current Assets	2,00,000
Total Assets	6,00,000
Share Capital	3,00,000
Long-term Liabilities	2,00,000
Current Liabilities	1,00,000

□ Calculation

Total Assets = 6,00,000 (100%)

- Fixed Assets % = $(4,00,000 \div 6,00,000) \times 100 = 66.67\%$
- Current Assets % = $(2,00,000 \div 6,00,000) \times 100 = 33.33\%$
- Share Capital % = 50%
- Long-term Liabilities % = 33.33%
- Current Liabilities % = 16.67%

□ Common-Size Balance Sheet

Particulars	Amount (₹)	% of Total
Fixed Assets	4,00,000	66.67%
Current Assets	2,00,000	33.33%
Total Assets	6,00,000	100%
Share Capital	3,00,000	50%
Long-term Liabilities	2,00,000	33.33%
Current Liabilities	1,00,000	16.67%

Given Data

Particulars	Amount (₹)
Fixed Assets	8,00,000
Current Assets	4,00,000
Total Assets	12,00,000
Share Capital	6,00,000
Reserves & Surplus	2,00,000

Management Accounting

Long-term Liabilities	3,00,000
Current Liabilities	1,00,000

☐ Calculation

Total Assets = 12,00,000 (100%)

- Fixed Assets % = $(8,00,000 \div 12,00,000) \times 100 = 66.67\%$
- Current Assets % = 33.33%
- Share Capital % = 50%
- Reserves & Surplus % = 16.67%
- Long-term Liabilities % = 25%
- Current Liabilities % = 8.33%

☐ Common-Size Balance Sheet

Particulars	Amount (₹)	% of Total
Fixed Assets	8,00,000	66.67%
Current Assets	4,00,000	33.33%
Total Assets	12,00,000	100%
Share Capital	6,00,000	50%
Reserves & Surplus	2,00,000	16.67%
Long-term Liabilities	3,00,000	25%
Current Liabilities	1,00,000	8.33%

☐ Interpretation: Company relies more on equity (66.67%) than debt (33.33%).

☒ Illustration 2

☐ Given Data

Particulars	Amount (₹)
Fixed Assets	5,00,000
Current Assets	5,00,000
Total Assets	10,00,000
Share Capital	4,00,000
Long-term Loan	3,00,000
Current Liabilities	3,00,000

☐ Calculation

Management Accounting

Total Assets = 10,00,000 (100%)

- Fixed Assets % = 50%
- Current Assets % = 50%
- Share Capital % = 40%
- Long-term Loan % = 30%
- Current Liabilities % = 30%

☐ Common-Size Balance Sheet

Particulars	Amount (₹)	% of Total
Fixed Assets	5,00,000	50%
Current Assets	5,00,000	50%
Total Assets	10,00,000	100%
Share Capital	4,00,000	40%
Long-term Loan	3,00,000	30%
Current Liabilities	3,00,000	30%

☐ Interpretation: Debt (60%) is higher than equity (40%), indicating higher financial risk.

✓ Illustration 3 (High Current Assets Scenario)

☐ Given Data

Particulars	Amount (₹)
Fixed Assets	3,00,000
Current Assets	7,00,000
Total Assets	10,00,000
Share Capital	5,00,000
Long-term Liabilities	2,00,000
Current Liabilities	3,00,000

☐ Calculation

- Fixed Assets % = 30%
- Current Assets % = 70%
- Share Capital % = 50%
- Long-term Liabilities % = 20%
- Current Liabilities % = 30%

☐ Common-Size Balance Sheet

Particulars	Amount (₹)	% of Total
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Management Accounting

Fixed Assets	3,00,000	30%
Current Assets	7,00,000	70%
Total Assets	10,00,000	100%
Share Capital	5,00,000	50%
Long-term Liabilities	2,00,000	20%
Current Liabilities	3,00,000	30%

□ Interpretation: High current assets indicate strong liquidity.

□ Objectives

The **objective of a Common-Size Balance Sheet** is to analyze the financial position of a business by expressing each asset, liability, and equity item as a percentage of total assets (or total liabilities).

This helps in understanding the financial structure more clearly.

□ Main Objectives

❶ To Analyze Asset Composition

- Shows the proportion of fixed assets and current assets.
- Helps understand investment pattern.

❷ To Study Capital Structure

- Shows the percentage of equity and debt.
- Helps evaluate financial risk.

❸ To Assess Liquidity Position

- Indicates proportion of current assets and current liabilities.
- Helps analyze working capital position.

❹ To Facilitate Inter-Firm Comparison

- Makes comparison easier between companies of different sizes.
- Removes effect of scale of operations.

❺ To Evaluate Financial Stability

- Helps assess solvency and long-term financial strength.

❻ To Assist in Decision-Making

- Helps management in financial planning and policy formulation.
- Assists investors and creditors in making decisions.

The main objective of a Common-Size Balance Sheet is to convert financial position data into percentage form, making analysis of asset distribution, capital structure, and financial stability simple and effective.

□ Advantages

A **Common-Size Balance Sheet** expresses each asset, liability, and equity item as a percentage of total assets (100%).

This makes financial structure analysis clearer and easier.

□ Main Advantages

❏ 1 Easy Comparison

- Facilitates comparison between companies of different sizes.
- Useful for inter-firm and intra-firm comparison.

❏ 2 Shows Financial Structure Clearly

- Reveals proportion of fixed and current assets.
- Shows relationship between equity and debt.

❏ 3 Helps in Analyzing Capital Structure

- Indicates percentage of shareholders' funds and borrowed funds.
- Helps assess financial risk.

❏ 4 Assists in Liquidity Analysis

- Shows proportion of current assets and current liabilities.
- Helps evaluate working capital position.

❏ 5 Simplifies Financial Data

- Converts large figures into percentages.
- Makes understanding easier for users.

❏ 6 Useful for Decision-Making

- Assists management in financial planning.
- Helps investors and creditors evaluate stability.

The Common-Size Balance Sheet is a valuable tool for analyzing asset composition, capital structure, and financial stability in a simple and comparative manner.

⚠ Limitations

Although the **Common-Size Balance Sheet** is useful for analyzing financial structure, it has certain limitations that may reduce its effectiveness.

⚠ Main Limitations

❏ 1 Ignores Absolute Figures

- Shows only percentages.
- Does not reflect the actual size of the business.

2 Based on Historical Cost

- Assets are recorded at historical cost.
- Inflation and price level changes are not considered.

3 Affected by Accounting Policies

- Different methods of depreciation and asset valuation affect comparability.
- Makes inter-firm comparison less accurate.

4 Does Not Show Reasons for Changes

- Shows financial structure but does not explain why changes occurred.

5 Limited to Quantitative Data

- Focuses only on numerical information.
- Ignores qualitative factors like management efficiency and market conditions.

6 May Be Misleading Alone

- Should be used along with ratio analysis and comparative statements for better understanding.

While the Common-Size Balance Sheet simplifies financial structure analysis, it has limitations such as ignoring absolute values, inflation effects, and qualitative factors. Proper interpretation and use with other tools are necessary for accurate s.

A Common-Size Balance Sheet expresses financial position in percentage form, helping in analyzing asset distribution and capital structure effectively.

Common-size statements convert financial data into percentage form, making analysis and comparison easier and more meaningful.

Comparative vs Common-Size Balance Sheet

- **Comparative Balance Sheet** shows assets and liabilities of two or more years side by side to analyze increase or decrease.
- **Common-Size Balance Sheet** shows each item as a percentage of total assets (100%) to analyze financial structure.

Difference between Comparative and Common-Size Balance Sheet

Basis	Comparative Balance Sheet	Common-Size Balance Sheet
Purpose	To show change in financial position over years	To show financial structure in percentage form
Nature	Horizontal analysis	Vertical analysis
Comparison	Year-to-year comparison	Structural comparison within the

Management Accounting

		same year
Data Shown	Absolute figures + increase/decrease	Percentages of total assets
Focus	Growth or decline in assets & liabilities	Proportion of assets, liabilities & equity
Base	Previous year (base year)	Total Assets = 100%
Usefulness	Shows trend over time	Shows composition and capital structure
Best Used For	Analyzing financial growth	Analyzing financial structure

□ Key Difference in Simple Words

- Comparative Balance Sheet → **“How much has changed?”**
- Common-Size Balance Sheet → **“In what proportion?”**

Both statements are important tools of financial analysis. The comparative balance sheet helps in understanding changes over time, while the common-size balance sheet helps in analyzing financial structure and capital composition.

Trend Analysis

Trend Analysis is a method of financial analysis that studies the movement of financial data over several years to identify patterns of growth or decline.

It shows whether items like sales, profit, or assets are increasing, decreasing, or stable over time.

It is also called **Trend Percentage Analysis**.

□ Formula

Trend Percentage = (Current Year Value ÷ Base Year Value) × 100

□ Base Year is usually taken as the first year and considered **100%**.

□ Example

Given Data (Sales)

Year	Sales (₹)
2021	1,00,000
2022	1,20,000
2023	1,50,000

Calculation

Base Year (2021) = 100%

- 2022 Trend % = $(1,20,000 \div 1,00,000) \times 100 = 120\%$

Management Accounting

- 2023 Trend % = $(1,50,000 \div 1,00,000) \times 100 = 150\%$

☐ Trend Table

Year	Sales (₹)	Trend %
2021	1,00,000	100%
2022	1,20,000	120%
2023	1,50,000	150%

- ☐ Interpretation: Sales increased by 50% over three years.

Illustration 1 – Sales Trend (Increase)

☐ Given Data

Year	Sales (₹)
2020	2,00,000
2021	2,40,000
2022	3,00,000
2023	3,20,000

- ☐ Base Year = 2020 (100%)

☐ Formula

Trend % = (Current Year ÷ Base Year) × 100

- 2021 = $(2,40,000 \div 2,00,000) \times 100 = 120\%$
- 2022 = $(3,00,000 \div 2,00,000) \times 100 = 150\%$
- 2023 = $(3,20,000 \div 2,00,000) \times 100 = 160\%$

☐ Trend Table

Year	Sales (₹)	Trend %
2020	2,00,000	100%
2021	2,40,000	120%
2022	3,00,000	150%
2023	3,20,000	160%

- ☐ Interpretation: Sales increased by 60% over four years.

✓ Illustration 2 – Profit Trend (Fluctuation)

☐ Given Data

Year	Net Profit (₹)
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Management Accounting

2019	80,000
2020	1,00,000
2021	90,000
2022	1,20,000

☐ Base Year = 2019 (100%)

☐ **Calculation**

- $2020 = (1,00,000 \div 80,000) \times 100 = 125\%$
- $2021 = (90,000 \div 80,000) \times 100 = 112.5\%$
- $2022 = (1,20,000 \div 80,000) \times 100 = 150\%$

☐ **Trend Table**

Year	Profit (₹)	Trend %
2019	80,000	100%
2020	1,00,000	125%
2021	90,000	112.5%
2022	1,20,000	150%

☐ Interpretation: Profit fluctuated but overall increased by 50%.

✔ Illustration 3 – Expense Trend (Decrease)

☐ **Given Data**

Year	Operating Expenses (₹)
2021	1,50,000
2022	1,35,000
2023	1,20,000

☐ Base Year = 2021 (100%)

☐ **Calculation**

- $2022 = (1,35,000 \div 1,50,000) \times 100 = 90\%$
- $2023 = (1,20,000 \div 1,50,000) \times 100 = 80\%$

☐ **Trend Table**

Year	Expenses (₹)	Trend %
2021	1,50,000	100%
2022	1,35,000	90%
2023	1,20,000	80%

☐ Interpretation: Expenses reduced by 20% over three years.

□ Objectives

The **objective of Trend Analysis** is to study the movement of financial data over several years in order to identify patterns of growth, decline, or stability.

It helps in understanding the direction and rate of change in business performance.

□ Main Objectives

❶ To Identify Growth or Decline

- Shows whether sales, profit, or assets are increasing or decreasing over time.

❷ To Analyze Long-Term Performance

- Helps evaluate overall financial progress of the company.

❸ To Assist in Forecasting

- Past trends help predict future performance.
- Useful in budgeting and planning.

❹ To Measure Financial Stability

- Indicates consistency in earnings and financial position.

❺ To Support Decision-Making

- Helps management in strategic planning.
- Assists investors in evaluating performance trends.

❻ To Compare Different Financial Items

- Allows comparison of trends in sales, expenses, and profits simultaneously.

The main objective of trend analysis is to evaluate the direction and consistency of financial performance over time, helping management and stakeholders make informed decisions.

Illustration 1 – Sales Trend (Steady Growth)

□ Given Data

Year	Sales (₹)
2019	1,50,000
2020	1,80,000
2021	2,10,000
2022	2,40,000

□ Base Year = 2019 (100%)

□ Formula

Trend % = (Current Year ÷ Base Year) × 100

Calculation

Management Accounting

- $2020 = (1,80,000 \div 1,50,000) \times 100 = 120\%$
- $2021 = (2,10,000 \div 1,50,000) \times 100 = 140\%$
- $2022 = (2,40,000 \div 1,50,000) \times 100 = 160\%$

☐ Trend Table

Year	Sales (₹)	Trend %
2019	1,50,000	100%
2020	1,80,000	120%
2021	2,10,000	140%
2022	2,40,000	160%

☐ Interpretation: Sales increased by 60% over four years.

✓ Illustration 2 – Profit Trend (Rise and Fall)

☐ Given Data

Year	Net Profit (₹)
2020	1,00,000
2021	1,30,000
2022	1,10,000
2023	1,50,000

☐ Base Year = 2020 (100%)

☐ Calculation

- $2021 = (1,30,000 \div 1,00,000) \times 100 = 130\%$
- $2022 = (1,10,000 \div 1,00,000) \times 100 = 110\%$
- $2023 = (1,50,000 \div 1,00,000) \times 100 = 150\%$

☐ Trend Table

Year	Profit (₹)	Trend %
2020	1,00,000	100%
2021	1,30,000	130%
2022	1,10,000	110%
2023	1,50,000	150%

☐ Interpretation: Profit fluctuated but overall increased by 50%.

✓ Illustration 3 – Expense Trend (Continuous Decrease)

☐ Given Data

Year	Operating Expenses (₹)
------	------------------------

Management Accounting

2021	2,00,000
2022	1,80,000
2023	1,60,000

□ Base Year = 2021 (100%)

□ Calculation

- $2022 = (1,80,000 \div 2,00,000) \times 100 = 90\%$
- $2023 = (1,60,000 \div 2,00,000) \times 100 = 80\%$

□ Trend Table

Year	Expenses (₹)	Trend %
2021	2,00,000	100%
2022	1,80,000	90%
2023	1,60,000	80%

□ Interpretation: Expenses reduced by 20% over three years.

□ Advantages

Trend Analysis studies financial data over several years to identify patterns of growth or decline. It converts figures into percentages, making performance evaluation easier.

□ Main Advantages

❶ Shows Direction of Change

- Clearly indicates whether performance is improving or declining.
- Helps detect upward or downward trends.

❷ Useful for Long-Term Analysis

- Evaluates financial progress over several years.
- Helps measure consistency in performance.

❸ Assists in Forecasting

- Past trends help predict future performance.
- Useful for budgeting and planning.

❹ Easy to Understand

- Simple to calculate and interpret.
- Converts data into percentage form for clarity.

❺ Helps in Comparative Analysis

- Allows comparison of growth rate of sales, profit, expenses, etc.
- Useful for internal analysis.

❻ Supports Decision-Making

Management Accounting

- Helps management plan expansion or cost control.
- Assists investors in evaluating company performance.

Trend analysis is a simple and effective tool for evaluating long-term financial performance and identifying patterns that support planning and decision-making.

⚠ Limitations

Although **Trend Analysis** is useful for studying long-term financial performance, it has certain limitations that may affect the accuracy of s.

⚠ Main Limitations

❶ Based on Historical Data

- Uses past financial information.
- Past trends may not continue in the future.

❷ Effect of Inflation

- Financial figures are based on historical cost.
- Price level changes are not considered.

❸ Changes in Accounting Policies

- Different accounting methods may distort trend comparison.
- Reduces reliability of results.

❹ Ignores Qualitative Factors

- Does not consider non-financial aspects such as market competition, management efficiency, or economic conditions.

❺ May Be Misleading

- Sudden abnormal events (strike, natural disaster, pandemic) can distort trends.
- One unusual year may affect overall analysis.

❻ Requires Consistent Data

- Accurate trend analysis needs consistent accounting records.
- Any error in base year affects all percentages.

Trend analysis is a valuable financial tool, but it has limitations such as reliance on past data, inflation effects, and accounting changes. It should be used carefully along with other financial analysis techniques.

Trend analysis helps in understanding the direction and rate of change in financial performance over time, making it a valuable tool for financial planning and analysis.

Unit II

Ratio Analysis

Ratio Analysis: Meaning - Advantages - Limitations –Types of Ratios - Liquidity Ratios - Profitability Ratios -Turnover Ratios –Solvency Ratios - Leverage Ratios - Preparation of Financial Statements from Ratios.

Meaning

Ratio Analysis is a technique of financial analysis that studies the relationship between two financial figures by expressing one as a ratio of the other.

It helps in evaluating the **financial performance and position** of a business.

□ In simple words:

A ratio shows how one financial item is related to another.

Example:

Current Ratio = Current Assets ÷ Current Liabilities

□ Advantages of Ratio Analysis 1

Simplifies Financial Data

- Converts large figures into simple ratios.
- Makes analysis easier.

2 Helps in Decision-Making

- Assists management in planning and control.
- Helps investors and creditors make decisions.

3 Measures Profitability

- Shows earning capacity through profit ratios.

4 Assesses Liquidity

- Evaluates ability to meet short-term obligations.

5 Evaluates Solvency

- Shows long-term financial stability.

6 Facilitates Comparison

- Enables inter-firm and intra-firm comparison.
- Helps compare performance over different years.

7 Identifies Strengths and Weaknesses

- Highlights strong and weak areas of business.

⚠ Limitations of Ratio Analysis 1

Based on Historical Data

- Uses past financial statements.
- May not reflect future conditions.

2 Affected by Accounting Policies

- Different accounting methods reduce comparability.

3 Ignores Qualitative Factors

- Does not consider non-financial aspects like management efficiency.

4 Inflation Not Considered

- Based on historical cost figures.

5 Can Be Misleading

- Single ratio does not give complete picture.
- Requires proper interpretation.

6 Window Dressing

- Manipulated financial statements can distort ratios.

Ratio Analysis is a powerful tool for evaluating profitability, liquidity, and solvency. However, it should be used carefully along with other financial analysis techniques for accurate s.

Types of Ratios

Financial ratios are classified into different types based on the purpose they serve. These ratios help in evaluating liquidity, profitability, solvency, and operational efficiency of a business.

□ Main Types of Ratios

1 Liquidity Ratios

Liquidity Ratios measure the ability of a business to meet its **short-term obligations** using its current assets.

They show the short-term financial strength of a company.

□ Objectives of Liquidity Ratios

The **objectives of liquidity ratios** are to evaluate the short-term financial position of a business and determine its ability to meet current obligations.

□ Main Objectives

1 To Assess Short-Term Solvency

- Determine whether the company can pay its short-term debts on time.
-

Management Accounting

- Evaluate financial safety for creditors.

2 To Measure Working Capital Position

- Analyze relationship between current assets and current liabilities.
- Ensure sufficient working capital for operations.

3 To Ensure Smooth Business Operations

- Prevent liquidity crisis.
- Maintain regular payment of suppliers and expenses.

4 To Provide Confidence to Creditors

- Short-term lenders use liquidity ratios to assess repayment capacity.

5 To Evaluate Financial Stability

- Shows whether the company maintains a healthy balance between assets and liabilities.

6 To Support Managerial Decision-Making

- Helps management control inventory and receivables.
- Assists in improving cash management.

The main objective of liquidity ratios is to measure the company's ability to meet short-term obligations and maintain adequate working capital for smooth operations.

□ Main Liquidity Ratios

1 Current Ratio

The **Current Ratio** is a liquidity ratio that measures the ability of a business to meet its **short-term obligations** using its current assets.

It shows the relationship between **Current Assets** and **Current Liabilities**.

□ Formula

Current Ratio = Current Assets ÷ Current Liabilities

□ Ideal Ratio

2 : 1

This means the company has ₹2 of current assets for every ₹1 of current liability.

□ Components

✓ Current Assets

- Cash
- Bank Balance
- Debtors
- Inventory

Management Accounting

- Prepaid Expenses

✓ Current Liabilities

- Creditors
- Bills Payable
- Short-term Loans
- Outstanding Expenses

□ Numerical Example

If:

Current Assets = ₹1,50,000

Current Liabilities = ₹75,000

Current Ratio = $1,50,000 \div 75,000 = 2 : 1$

□ Interpretation: The company is in a satisfactory liquidity position.

The **Current Ratio** is used to measure the short-term financial strength of a business. Its main objective is to evaluate whether the company has enough current assets to meet its current liabilities.

□ Main Objectives

❶ To Assess Short-Term Solvency

- Determine the company's ability to pay short-term debts on time.

❷ To Evaluate Working Capital Position

- Shows the relationship between current assets and current liabilities.
- Helps determine adequacy of working capital.

❸ To Provide Safety Margin to Creditors

- Ensures short-term creditors that their money is secure.

❹ To Maintain Smooth Business Operations

- Ensures regular payment of wages, suppliers, and expenses.
- Prevents liquidity crisis.

❺ To Support Financial Planning

- Helps management manage inventory, receivables, and cash effectively.

The main objective of the Current Ratio is to measure the company's ability to meet short-term obligations and maintain sufficient working capital for smooth business functioning.

Illustration 1 – Simple Calculation

□ Given:

Management Accounting

Current Assets = ₹2,00,000

Current Liabilities = ₹1,00,000

□ Formula

Current Ratio = Current Assets ÷ Current Liabilities

= 2,00,000 ÷ 1,00,000

= **2 : 1**

□ Interpretation: The company has ₹2 of current assets for every ₹1 of liability. Liquidity position is satisfactory.

✓ Illustration 2 – With Balance Sheet Data

□ Given:

Current Assets

- Cash = ₹40,000
- Debtors = ₹60,000
- Inventory = ₹50,000
- Prepaid Expenses = ₹10,000

Total Current Assets = ₹1,60,000

Current Liabilities

- Creditors = ₹80,000
- Bills Payable = ₹20,000

Total Current Liabilities = ₹1,00,000

□ Calculation

Current Ratio = 1,60,000 ÷ 1,00,000

= **1.6 : 1**

□ Interpretation: Liquidity is moderate but slightly below ideal ratio (2:1).

✓ Illustration 3 – Finding Current Liabilities

□ Given:

Current Assets = ₹3,00,000

Current Ratio = 2.5 : 1

□ Formula

Current Ratio = Current Assets ÷ Current Liabilities

2.5 = 3,00,000 ÷ Current Liabilities

Management Accounting

Management Accounting

Current	Liabilities	=	3,00,000	÷	2.5
= ₹1,20,000					

□ Interpretation: Company's current liabilities are ₹1,20,000.

✓ Illustration 4 – Finding Current Assets

□ Given:

Current Ratio = 3 : 1

Current Liabilities = ₹90,000

□ Calculation

Current Assets	=	Current Ratio	×	Current Liabilities
= ₹2,70,000	3	×		90,000

2 Quick Ratio (Acid-Test Ratio)

The **Quick Ratio**, also known as the **Acid-Test Ratio**, is a liquidity ratio that measures a company's ability to meet its short-term obligations **without relying on inventory**.

It is a stricter test of liquidity than the Current Ratio.

□ Formula

Quick Ratio = Quick Assets ÷ Current Liabilities

Where:

Quick Assets = Current Assets – Inventory – Prepaid Expenses

□ Ideal Ratio

1 1

This means the company has ₹1 of quick assets for every ₹1 of current liability.

□ Components

✓ Quick Assets Include:

- Cash
- Bank Balance
- Marketable Securities
- Debtors (Accounts Receivable)

✖ Not Included:

- Inventory
- Prepaid Expenses

□ Illustration 1

□ Given:

Current	Assets	=	₹2,00,000
Inventory		=	₹50,000
Prepaid	Expenses	=	₹10,000
Current Liabilities = ₹1,20,000			

□ Calculation

Quick	Assets	=	2,00,000	–	50,000	–	10,000
= ₹1,40,000							
Quick	Ratio	=	1,40,000	÷			1,20,000
= 1.17 : 1							

□ Interpretation: Liquidity position is satisfactory (above 1:1).

□ Illustration 2 (Without Prepaid Expenses)

Current	Assets	=	₹1,50,000		
Inventory		=	₹40,000		
Current Liabilities = ₹1,00,000					
Quick	Assets	=	1,50,000	–	40,000
= ₹1,10,000					
Quick	Ratio	=	1,10,000	÷	1,00,000
= 1.1 : 1					

□ Objectives

The **Quick Ratio (Acid-Test Ratio)** is used to measure a company's immediate liquidity position.

Its main objective is to determine whether the business can meet its short-term obligations **without depending on inventory sales**.

□ Main Objectives

❶ To Measure Immediate Liquidity

- Evaluates ability to pay current liabilities quickly.
- Focuses only on highly liquid assets.

❷ To Provide a Strict Test of Solvency

- More conservative than Current Ratio.

Management Accounting

- Excludes inventory and prepaid expenses.

3 To Ensure Financial Safety

- Helps avoid liquidity crisis.
- Ensures company can meet urgent payments.

4 To Provide Confidence to Creditors

- Short-term creditors use it to assess repayment capacity.

5 To Evaluate Cash Management Efficiency

- Indicates how well the company manages cash and receivables.

6 To Support Financial Planning

- Helps management improve working capital control.

The primary objective of the Quick Ratio is to assess the company's immediate short-term solvency and ensure it can meet obligations without relying on inventory sales.

□ Advantages

The **Quick Ratio (Acid-Test Ratio)** is a stricter measure of liquidity than the Current Ratio. It excludes inventory and prepaid expenses to show the company's real short-term financial strength.

□ Main Advantages

1 Measures Immediate Liquidity

- Shows the ability to pay short-term liabilities quickly.
- Focuses on highly liquid assets like cash and receivables.

2 More Reliable Than Current Ratio

- Excludes inventory which may not be easily convertible into cash.
- Provides a more accurate picture of liquidity.

3 Helps Short-Term Creditors

- Gives assurance to suppliers and lenders about repayment capacity.

4 Indicates Cash Management Efficiency

- Reflects how efficiently the company manages cash and debtors.

5 Prevents Liquidity Crisis

- Helps management detect liquidity problems early.
- Encourages better working capital control.

6 Useful for Financial Decision-Making

- Assists in planning short-term borrowing and cash requirements.
-

The Quick Ratio is a dependable and strict measure of short-term solvency. It provides a clearer and more realistic assessment of a company's ability to meet immediate obligations.

⚠ Limitations

Although the **Quick Ratio** is a stricter and more reliable measure of liquidity than the Current Ratio, it has certain limitations.

⚠ Main Limitations

❶ Debtors May Not Be Immediately Realizable

- Quick assets include debtors (accounts receivable).
- Some debtors may be doubtful or slow-paying.

❷ Ignores Inventory Completely

- In some businesses, inventory may be easily saleable.
- Excluding it may underestimate liquidity.

❸ Based on Historical Data

- Uses figures from financial statements.
- May not reflect current market conditions.

❹ Does Not Show Timing of Cash Flows

- It shows position at a particular date.
- Does not indicate when liabilities are actually due.

❺ Industry Differences

- Ideal ratio (1:1) may not apply to all industries.
- Different businesses have different liquidity needs.

❻ Can Be Manipulated

- Window dressing (e.g., delaying payments or collecting receivables early) may distort ratio.

The Quick Ratio is a useful measure of immediate liquidity, but it has limitations such as reliance on receivables and historical data. It should be analyzed along with other financial ratios for accurate s.

The Quick Ratio is a strict measure of liquidity that indicates whether a company can meet its short-term obligations without selling inventory. It provides a more accurate picture of immediate financial strength.

Management Accounting

Illustration 1 – Basic Calculation

☐ **Given:**

Current	Assets	=	₹2,50,000
Inventory		=	₹80,000
Prepaid	Expenses	=	₹20,000
Current Liabilities = ₹1,50,000			

☐ **Step 1: Calculate Quick Assets**

Quick	Assets	=	Current	Assets	–	Inventory	–	Prepaid	Expenses
=	2,50,000			–	80,000		–		20,000
= ₹1,50,000									

☐ **Step 2: Calculate Quick Ratio**

Quick	Ratio	=	1,50,000	÷	1,50,000
= 1 : 1					

☐ Interpretation: Liquidity position is satisfactory.

✓ **Illustration 2 – From Detailed Balance Sheet**

☐ **Given:**

Current Assets

- Cash = ₹40,000
- Bank = ₹30,000
- Debtors = ₹60,000
- Inventory = ₹50,000

Total Current Assets = ₹1,80,000

Current Liabilities

- Creditors = ₹1,00,000
- Bills Payable = ₹20,000

Total Current Liabilities = ₹1,20,000

☐ **Calculation**

Quick	Assets	=	1,80,000	–	50,000
= ₹1,30,000					
Quick	Ratio	=	1,30,000	÷	1,20,000
= 1.08 : 1					

☐ Interpretation: Company can meet its short-term liabilities without selling inventory.

Management Accounting

✓ Illustration 3 – Finding Current Liabilities

□ Given:

Quick Assets = ₹2,00,000

Quick Ratio = 2 : 1

□ Formula

Quick Ratio = Quick Assets ÷ Current Liabilities

2 = 2,00,000 ÷ Current Liabilities

Current Liabilities = $\frac{2,00,000}{2}$
= ₹1,00,000

✓ Illustration 4 – Finding Quick Assets

□ Given:

Quick Ratio = 1.5 : 1

Current Liabilities = ₹80,000

□ Calculation

Quick Assets = Quick Ratio × Current Liabilities
= 1.5 × 80,000
= ₹1,20,000

3 Absolute Liquid Ratio (Cash Ratio)

The **Absolute Liquid Ratio**, also known as the **Cash Ratio**, is a liquidity ratio that measures a company's ability to pay its short-term liabilities using only **cash and near-cash assets**.

It is the most conservative (strict) measure of liquidity.

□ Formula

Absolute Liquid Ratio = Absolute Liquid Assets ÷ Current Liabilities

Where:

Absolute Liquid Assets include:

- Cash in hand
- Cash at bank
- Marketable securities (short-term investments)

□ Ideal Ratio

0.5 : 1 (or 1 : 2)

This means the company should have at least ₹0.50 in cash for every ₹1 of current liability.

Management Accounting

□ Components

✓ Included

- Cash
- Bank Balance
- Short-term marketable securities

✗ Not Included

- Debtors
- Inventory
- Prepaid Expenses

□ Illustration 1

□ Given:

Cash	=	₹40,000
Bank	=	₹30,000
Marketable Securities	=	₹10,000

Current Liabilities = ₹1,60,000

□ Calculation

$$\text{Absolute Liquid Assets} = 40,000 + 30,000 + 10,000 = ₹80,000$$

$$\text{Absolute Liquid Ratio} = \frac{80,000}{1,60,000} = 0.5 : 1$$

□ Interpretation: Liquidity position is satisfactory as per ideal standard.

□ Illustration 2

Cash	=	₹50,000
Bank	=	₹20,000

Current Liabilities = ₹1,00,000

Absolute Liquid Assets = ₹70,000

$$\text{Absolute Liquid Ratio} = \frac{70,000}{1,00,000} = 0.7 : 1$$

□ Interpretation: Company has strong immediate liquidity.

□ Objectives

The **Absolute Liquid Ratio (Cash Ratio)** measures a company's ability to meet its short-term liabilities using only **cash and cash equivalents**. It is the strictest test of liquidity.

Management Accounting

□ Main Objectives

❶ To Measure Immediate Liquidity

- Determines the company's ability to pay current liabilities instantly.

❷ To Assess Cash Position

- Evaluates availability of cash and marketable securities.

❸ To Provide Maximum Safety to Creditors

- Ensures short-term creditors that the company has sufficient cash backing.

❹ To Evaluate Financial Stability in Emergencies

- Helps measure preparedness during crisis situations.

❺ To Support Cash Management

- Assists management in maintaining adequate cash reserves.

❻ To Prevent Liquidity Risk

- Identifies potential cash shortages in advance.

The main objective of the Absolute Liquid Ratio is to assess the company's immediate ability to meet short-term obligations using only cash and highly liquid assets, ensuring maximum financial safety.

□ Advantages

The **Absolute Liquid Ratio (Cash Ratio)** is the most conservative liquidity ratio. It measures a company's ability to meet short-term liabilities using only cash and cash equivalents.

□ Main Advantages

❶ Most Reliable Measure of Liquidity

- Considers only cash and near-cash assets.
- Gives a true picture of immediate solvency.

❷ Indicates Immediate Paying Capacity

- Shows whether the company can pay urgent liabilities instantly.

❸ Provides Maximum Safety to Creditors

- Short-term lenders prefer this ratio as it shows real cash backing.

❹ Avoids Overestimation of Liquidity

- Excludes inventory and debtors which may not be quickly realizable.

❺ Useful in Crisis Situations

- Helps assess financial strength during emergencies or downturns.

❻ Assists in Cash Management

Management Accounting

- Helps management maintain adequate cash balance.
-

Management Accounting

The Absolute Liquid Ratio is a strict and dependable indicator of immediate liquidity. It ensures financial safety by focusing only on cash and highly liquid assets.

⚠ Limitations

Although the **Absolute Liquid Ratio (Cash Ratio)** is the strictest measure of liquidity, it has certain limitations that may reduce its effectiveness when used alone.

⚠ Main Limitations

❶ Too Conservative

- Considers only cash and marketable securities.
- Ignores receivables that may be quickly collectible.

❷ May Underestimate Liquidity

- Companies with strong receivables may appear weak.
- Does not reflect full short-term strength.

❸ Idle Cash Reduces Profitability

- High cash ratio may indicate idle funds.
- Excess cash earns little or no return.

❹ Based on Historical Data

- Uses figures from financial statements.
- May not represent real-time cash position.

❺ Industry Differences

- Ideal ratio (0.5:1) may not apply to all industries.
- Cash requirements vary by business type.

❻ Snapshot at a Particular Date

- Shows position only on balance sheet date.
- Does not consider timing of cash inflows and outflows.

The Absolute Liquid Ratio is a strict and reliable indicator of immediate liquidity, but it may underestimate overall liquidity and ignore operational realities. It should be analyzed along with other liquidity ratios for a complete picture.

Illustration 1 – All Three Ratios from Same Data

□ Given:

Current Assets

- Cash = ₹50,000
- Bank = ₹30,000

Management Accounting

Management Accounting

- Debtors = ₹70,000
- Inventory = ₹50,000
- Prepaid Expenses = ₹10,000

Total Current Assets = ₹2,10,000 **Current**

Liabilities = ₹1,40,000

□ Step 1: Current Ratio

$$\begin{array}{ccccccc} \text{Current} & \text{Ratio} & = & \text{Current} & \text{Assets} & \div & \text{Current} & \text{Liabilities} \\ = & & & 2,10,000 & & \div & & 1,40,000 \\ = & \mathbf{1.5 : 1} & & & & & & \end{array}$$

□ Step 2: Quick Ratio

$$\begin{array}{ccccccc} \text{Quick} & \text{Assets} & = & \text{Current} & \text{Assets} & - & \text{Inventory} & - & \text{Prepaid} & \text{Expenses} \\ = & 2,10,000 & & & - & & 50,000 & & - & 10,000 \\ = & ₹1,50,000 & & & & & & & & \\ \text{Quick} & \text{Ratio} & = & & 1,50,000 & & \div & & 1,40,000 \\ = & \mathbf{1.07 : 1} & & & & & & & \end{array}$$

□ Step 3: Absolute Liquid Ratio

$$\begin{array}{ccccccc} \text{Absolute} & \text{Liquid} & \text{Assets} & = & \text{Cash} & + & \text{Bank} \\ = & & 50,000 & & + & & 30,000 \\ = & ₹80,000 & & & & & \\ \text{Cash} & \text{Ratio} & = & & 80,000 & & \div & & 1,40,000 \\ = & \mathbf{0.57 : 1} & & & & & & & \end{array}$$

□ Interpretation

- Current Ratio = 1.5 : 1 (Moderate liquidity)
- Quick Ratio = 1.07 : 1 (Satisfactory)
- Cash Ratio = 0.57 : 1 (Above ideal 0.5:1 → Good)

✓ Illustration 2 – Strong Liquidity Case

□ Given:

$$\begin{array}{ccccccc} \text{Current} & \text{Assets} & = & & ₹4,00,000 \\ \text{Inventory} & & = & & ₹1,00,000 \\ \text{Prepaid} & \text{Expenses} & = & & ₹20,000 \\ \text{Cash} & \& \text{Bank} & = & ₹1,50,000 \\ \text{Current Liabilities} & = & ₹2,00,000 & & \end{array}$$

Management Accounting

Management Accounting

☐ Calculations

Current Ratio = $4,00,000 \div 2,00,000 = 2 : 1$

Quick Assets = $4,00,000 - 1,00,000 - 20,000$
 $= ₹2,80,000$

Quick Ratio = $2,80,000 \div 2,00,000$
 $= 1.4 : 1$

Cash Ratio = $1,50,000 \div 2,00,000$
 $= 0.75 : 1$

☐ Interpretation

All three ratios indicate strong liquidity position.

☐ Quick Comparison Summary

Ratio	Illustration 1	Illustration 2
Current Ratio	1.5 : 1	2 : 1
Quick Ratio	1.07 : 1	1.4 : 1
Cash Ratio	0.57 : 1	0.75 : 1

The Absolute Liquid Ratio (Cash Ratio) is the strictest test of liquidity. It measures the company's ability to meet short-term liabilities using only cash and cash equivalents.

Liquidity ratios are essential tools for analyzing a company's ability to meet short-term obligations and maintain financial stability.

Comparison of Current, Quick & Cash Ratios

Basis	Current Ratio	Quick Ratio (Acid-Test)	Cash Ratio (Absolute Liquid Ratio)
Meaning	Measures overall short-term solvency excluding inventory	Measures ability to pay using only cash	Measures immediate solvency
Formula	$\text{Current Assets} \div \text{Current Liabilities}$ $\text{Cash \& Bank} \div \text{Current Liabilities}$	$\text{Quick Assets} \div \text{Current Liabilities}$	
Assets Considered	All current assets cash & marketable securities	Current assets – Inventory – Prepaid expenses	Only
Strictness Level	Least strict	More strict	Most strict
Ideal Ratio	2 : 1	1 : 1	0.5 : 1
Reliability	Moderate	High	Very high (conservative)

Management Accounting

Purpose	General liquidity test		Immediate liquidity test		Emergency liquidity test
Inventory Included?	Yes	No	No		
Debtors Included?	Yes	Yes	No		

□ Key Difference in Simple Words

- **Current Ratio** → “Can we pay short-term debts?”
- **Quick Ratio** → “Can we pay without selling inventory?”
- **Cash Ratio** → “Can we pay immediately using only cash?”

The Current Ratio gives a general liquidity view, the Quick Ratio gives a stricter liquidity position, and the Cash Ratio provides the most conservative measure of immediate solvency. For accurate analysis, all three should be used together.

② Profitability Ratios

Profitability Ratios measure the earning capacity of a business. They show how efficiently a company generates profit from its sales, assets, or capital employed. These ratios help evaluate overall financial performance.

□ Objectives of Profitability Ratios

The **objectives of profitability ratios** are to measure the earning capacity and operational efficiency of a business. These ratios help determine how effectively a company generates profit from its sales and investments.

□ Main Objectives

① To Measure Earning Capacity

- Evaluate the company's ability to generate profit.
- Assess overall financial performance.

② To Analyze Cost Efficiency

- Determine how well expenses are controlled.
- Identify areas of high cost.

③ To Assess Return on Investment

- Measure return earned on capital employed or shareholders' funds.

④ To Compare Performance

- Compare profitability over different years.
- Compare with competitors in the industry.

⑤ To Support Managerial Decisions

- Assist in pricing decisions.

Management Accounting

- Help in cost reduction and expansion planning.

6 To Attract Investors

- High profitability ratios indicate strong earning potential.
- Increase investor confidence.

7 To Evaluate Operational Efficiency

- Measure efficiency of core business operations.

The primary objective of profitability ratios is to evaluate the earning power and efficiency of a business, helping management and investors make informed financial decisions.

Profitability Ratios measure the earning capacity of a business. They help evaluate how efficiently a company generates profit from its sales, assets, and capital employed.

□ Main Advantages

1 Measures Earning Capacity

- Shows the company's ability to generate profits.
- Indicates overall financial performance.

2 Helps in Performance Evaluation

- Evaluates efficiency of management.
- Assesses operational effectiveness.

3 Facilitates Comparison

- Useful for comparing performance across years.
- Helps compare with competitors in the industry.

4 Assists in Decision-Making

- Supports pricing and cost control decisions.
- Helps in planning expansion or investment.

5 Attracts Investors

- Higher profitability increases investor confidence.
- Reflects strong financial health.

6 Indicates Financial Stability

- Consistent profit margins indicate stable operations.

7 Helps in Cost Control

- Identifies areas where expenses are high.
- Encourages efficiency improvement.

Management Accounting

Profitability ratios are powerful tools for analyzing earning capacity and operational efficiency. They help management, investors, and stakeholders evaluate financial performance and make informed decisions.

Although **Profitability Ratios** are useful for measuring earning capacity, they have certain limitations. These limitations may affect the accuracy and reliability of s.

⚠ Main Limitations

❶ Based on Historical Data

- Ratios are calculated from past financial statements.
- Past profits may not guarantee future performance.

❷ Affected by Accounting Policies

- Different methods of depreciation and inventory valuation affect profit.
- Reduces comparability between companies.

❸ Ignores Inflation

- Financial statements are prepared at historical cost.
- Inflation may distort real profitability.

❹ Does Not Consider Qualitative Factors

- Ignores management efficiency, market conditions, and competition.

❺ Can Be Manipulated

- Window dressing may artificially increase profits.
- Leads to misleading ratios.

❻ Industry Differences

- Profitability standards vary across industries.
- Difficult to compare companies from different sectors.

❼ Single Ratio Is Not Sufficient

- One ratio alone cannot give complete information.
- Must be used with other financial ratios.

Profitability ratios are important indicators of earning capacity, but they should be interpreted carefully along with other financial and qualitative information for accurate decision-making.

□ Types of Profitability Ratios

1 Gross Profit Ratio

The **Gross Profit Ratio** (also called **Gross Profit Margin**) measures the relationship between **gross profit and net sales**.

It shows how much profit is earned after covering the **cost of goods sold (COGS)**.

□ Formula

Gross Profit Ratio = (Gross Profit ÷ Net Sales) × 100

Where:

Gross Profit = Net Sales – Cost of Goods Sold

□ Purpose

- To measure production and trading efficiency
- To analyze cost control
- To evaluate pricing policy

□ Illustration

□ Given:

Net Sales = ₹5,00,000

Cost of Goods Sold = ₹3,50,000

□ Calculation

Gross Profit = 5,00,000 – 3,50,000
= ₹1,50,000

Gross Profit Ratio = $(1,50,000 \div 5,00,000) \times 100$
= **30%**

□ Interpretation: The company earns 30% gross profit on sales.

Illustration 1 – Basic Calculation

□ Given:

Net Sales = ₹8,00,000

Cost of Goods Sold = ₹5,60,000

□ Step 1: Calculate Gross Profit

Gross Profit = 8,00,000 – 5,60,000
= ₹2,40,000

□ Step 2: Calculate Gross Profit Ratio

Management Accounting

Management Accounting

$$\text{Gross Profit Ratio} = \frac{(2,40,000)}{8,00,000} \times 100 = 30\%$$

□ Interpretation: Company earns 30% gross profit on sales.

✓ Illustration 2 – Finding Gross Profit

□ **Given:**

$$\text{Net Sales} = ₹6,00,000$$

$$\text{Gross Profit Ratio} = 25\%$$

□ **Formula**

$$\text{Gross Profit} = (\text{Gross Profit Ratio} \times \text{Net Sales}) \div 100$$

$$= \frac{(25 \times 6,00,000)}{100}$$

$$= ₹1,50,000$$

□ Interpretation: Gross profit is ₹1,50,000.

✓ Illustration 3 – Finding Net Sales

□ **Given:**

$$\text{Gross Profit} = ₹90,000$$

$$\text{Gross Profit Ratio} = 15\%$$

□ **Formula**

$$\text{Net Sales} = (\text{Gross Profit} \times 100) \div \text{Gross Profit Ratio}$$

$$= \frac{(90,000 \times 100)}{15}$$

$$= ₹6,00,000$$

✓ Illustration 4 – Comparative Case

□ **Given:**

Particulars	Year 1	Year 2
Net Sales	4,00,000	5,00,000
Cost of Goods Sold	3,00,000	3,50,000

□ **Calculation**

Year 1:

$$\text{Gross Profit} = 4,00,000 - 3,00,000 = 1,00,000$$

$$\text{Gross Profit Ratio} = (1,00,000 \div 4,00,000) \times 100 = 25\%$$

Year 2:

$$\text{Gross Profit} = 5,00,000 - 3,50,000 = 1,50,000$$

$$\text{Gross Profit Ratio} = (1,50,000 \div 5,00,000) \times 100 = 30\%$$

□ Interpretation: Profitability improved from 25% to 30%.

Management Accounting

□ Objectives

The **Gross Profit Ratio** measures the relationship between gross profit and net sales. Its main objective is to evaluate the efficiency of production or trading activities and cost control.

□ Main Objectives

❏ 1 To Measure Trading Efficiency

- Assesses how efficiently the company purchases or produces goods.

❏ 2 To Evaluate Cost Control

- Shows how well the company controls cost of goods sold (COGS).

❏ 3 To Assess Pricing Policy

- Helps determine whether selling price is adequate.
- Indicates effectiveness of pricing strategy.

❏ 4 To Compare Performance

- Enables comparison of profitability across years.
- Helps compare with competitors in the industry.

❏ 5 To Identify Profit Margin Trend

- Shows whether gross profit margin is improving or declining.

❏ 6 To Support Managerial Decisions

- Helps in cost reduction decisions.
- Assists in setting selling prices.

The main objective of the Gross Profit Ratio is to measure the efficiency of production or trading operations and ensure proper cost control and pricing policy for maintaining profitability.

□ Advantages

- Helps in cost control

The **Gross Profit Ratio** shows the relationship between gross profit and net sales. It helps measure production or trading efficiency and cost control.

□ Main Advantages

❏ 1 Measures Trading Efficiency

- Indicates how efficiently goods are purchased or produced.
 - Reflects operational performance.
-

Management Accounting

2 Helps in Cost Control

- Shows effectiveness in controlling cost of goods sold (COGS).
- Helps detect wastage or inefficiencies.

3 Assists in Pricing Decisions

- Helps management fix appropriate selling prices.
- Ensures adequate profit margin.

4 Facilitates Comparison

- Enables comparison of performance across years.
- Useful for inter-firm comparison within the same industry.

5 Identifies Profit Margin Trend

- Shows whether gross profit is improving or declining.
- Helps analyze trend over time.

6 Useful for Management and Investors

- Indicates financial health of trading operations.
- Helps investors assess earning capacity.

The Gross Profit Ratio is a useful indicator of trading efficiency, cost control, and pricing effectiveness. It plays an important role in evaluating business performance.

⚠ Limitations

Although the **Gross Profit Ratio** is useful for measuring trading efficiency, it has certain limitations that may affect its reliability.

⚠ Main Limitations

1 Ignores Operating Expenses

- Considers only cost of goods sold (COGS).
- Does not account for administrative and selling expenses.

2 Based on Historical Data

- Uses past financial information.
- May not reflect future profitability.

3 Affected by Accounting Policies

- Changes in inventory valuation (FIFO, LIFO, etc.) affect gross profit.
- Reduces comparability between firms.

4 Does Not Show Overall Profitability

- High gross profit does not guarantee high net profit.
- Other expenses may reduce final earnings.

5 Industry Differences

- Gross profit standards vary across industries.
- Not suitable for comparing different types of businesses.

6 Can Be Misleading if Used Alone

- Should be used with other profitability ratios.
- Single ratio cannot give complete picture.

The Gross Profit Ratio is a useful indicator of trading efficiency, but it has limitations such as ignoring operating expenses and reliance on accounting methods. It should be interpreted along with other financial ratios for accurate analysis.

The Gross Profit Ratio is an important profitability ratio that indicates how efficiently a business manages its production and cost of goods sold.

2 Net Profit Ratio

The **Net Profit Ratio** (also called **Net Profit Margin**) measures the relationship between **net profit and net sales**.

It shows how much **final profit** a company earns after deducting **all expenses**, including operating expenses, interest, and taxes.

□ Formula

Net Profit Ratio = (Net Profit ÷ Net Sales) × 100

□ Net Profit = Profit after deducting all expenses

□ Objectives

The **Net Profit Ratio** measures the relationship between net profit and net sales. Its main objective is to evaluate the overall profitability and efficiency of a business after considering all expenses.

□ Main Objectives

1 To Measure Overall Profitability

- Shows final profit earned after deducting all expenses.
- Indicates earning capacity of the business.

2 To Evaluate Operational Efficiency

- Reflects efficiency in managing operating and non-operating expenses.

3 To Assess Cost Control

- Helps determine whether expenses are properly controlled.

4 To Analyze Management Performance

- Indicates effectiveness of managerial decisions.

5 To Compare Performance

- Enables comparison across different years.
- Useful for inter-firm comparison within the same industry.

6 To Assist in Decision-Making

- Helps in pricing decisions and expansion planning.
- Assists investors and creditors in evaluating financial health.

The main objective of the Net Profit Ratio is to measure the company's overall earning efficiency after covering all expenses and to support financial evaluation and decision-making.

Illustration 1

Given:

Net Sales = ₹10,00,000

Net Profit = ₹1,50,000

Calculation

Net Profit Ratio = $\frac{(1,50,000)}{10,00,000} \times 100$
= **15%**

Interpretation: The company earns ₹15 profit on every ₹100 of sales.

Illustration 2 (Finding Net Profit)

Net Sales = ₹5,00,000

Net Profit Ratio = 20%

Net Profit = $(20 \times 5,00,000) \div 100$
= ₹1,00,000

Advantages

The **Net Profit Ratio** shows the relationship between net profit and net sales. It indicates the overall earning efficiency of a business after deducting all expenses.

Main Advantages

1 Measures Overall Profitability

- Reflects final profit earned after all expenses.
- Shows true earning capacity of the company.

2 Evaluates Management Efficiency

Management Accounting

- Indicates how efficiently management controls costs and operations.

3 Useful for Comparison

- Helps compare performance across different years.
- Enables inter-firm comparison within the same industry.

4 Assists in Decision-Making

- Supports pricing, cost control, and expansion decisions.

5 Attracts Investors

- Higher net profit margin increases investor confidence.
- Indicates strong financial health.

6 Helps in Trend Analysis

- Identifies whether profitability is improving or declining over time.

The Net Profit Ratio is a comprehensive measure of overall profitability. It helps management, investors, and creditors evaluate financial performance and make informed decisions.

⚠ Limitations

- Affected by accounting policies

Although the **Net Profit Ratio** is an important indicator of overall profitability, it has certain limitations that may affect its accuracy and usefulness.

⚠ Main Limitations

1 Based on Historical Data

- Calculated from past financial statements.
- May not reflect future performance.

2 Affected by Accounting Policies

- Changes in depreciation, inventory valuation, or revenue recognition affect net profit.
- Reduces comparability between companies.

3 Influenced by Non-Operating Items

- Includes gains or losses not related to core operations.
- May not show true operating efficiency.

4 Ignores Capital Structure

- Does not consider the amount of capital invested.
- High profit margin does not always mean high return on investment.

5 Industry Differences

Management Accounting

- Profit margins vary across industries.
- Not suitable for comparing different sectors.

6 Can Be Manipulated

- Window dressing or accounting adjustments may distort profit figures.

The Net Profit Ratio is useful for measuring overall profitability, but it should be interpreted carefully along with other ratios and qualitative factors to obtain a complete picture of financial performance.

The Net Profit Ratio is an important profitability ratio that shows the company's overall earning capacity after covering all expenses.

3 Operating Profit Ratio

The **Operating Profit Ratio** (also called **Operating Profit Margin**) measures the relationship between **operating profit and net sales**.

It shows the profit earned from **core business operations**, excluding non-operating income and expenses (like interest and taxes).

□ Formula

Operating Profit Ratio = (Operating Profit ÷ Net Sales) × 100

Where:

Operating Profit = Gross Profit – Operating Expenses

OR

Operating Profit = Net Profit + Interest + Tax (if given)

□ Objectives

The **Operating Profit Ratio** measures the relationship between operating profit and net sales. Its main objective is to evaluate the efficiency of a company's core business operations.

□ Main Objectives

1 To Measure Operational Efficiency

- Determines how efficiently the company manages its core activities.

2 To Evaluate Cost Control

- Assesses control over operating expenses such as selling and administrative expenses.

3 To Exclude Non-Operating Items

- Focuses only on profits from normal business operations.
- Ignores interest and tax effects.

4 To Compare Performance

Management Accounting

- Enables comparison across years.
- Useful for comparing operational performance with competitors.

5 To Support Managerial Decision-Making

- Helps in controlling operating costs.
- Assists in pricing and budgeting decisions.

6 To Analyze Profit Margin Trend

- Shows whether operational profitability is improving or declining.

The primary objective of the Operating Profit Ratio is to assess the efficiency and profitability of a company's core business operations, helping management evaluate and improve operational performance.

□ Illustration 1

□ Given:

Net	Sales	=	₹8,00,000
Gross	Profit	=	₹3,00,000
Operating Expenses = ₹1,20,000			

□ Calculation

Operating	Profit	=	3,00,000	–	1,20,000
= ₹1,80,000					
Operating	Profit	Ratio	=	(1,80,000 ÷ 8,00,000)	× 100
= 22.5%					

□ Interpretation: Company earns 22.5% operating profit on sales.

□ Illustration 2 (Using Net Profit)

Net	Sales	=	₹10,00,000
Net	Profit	=	₹1,50,000
Interest		=	₹20,000
Tax = ₹30,000			
Operating	Profit	=	1,50,000 + 20,000 + 30,000
= ₹2,00,000			
Operating	Profit	Ratio	= (2,00,000 ÷ 10,00,000) × 100
= 20%			

□ Advantages

The **Operating Profit Ratio** measures the relationship between operating profit and net sales. It focuses on profit earned from core business operations.

Management Accounting

□ Main Advantages

❏ 1 Measures Core Business Efficiency

- Reflects profitability from normal business activities.
- Excludes non-operating items like interest and tax.

❏ 2 Helps in Cost Control

- Indicates how well operating expenses are managed.
- Helps identify unnecessary administrative or selling expenses.

❏ 3 Useful for Performance Comparison

- Enables year-to-year comparison.
- Helps compare operational efficiency with competitors.

❏ 4 Assists in Pricing Decisions

- Helps management determine whether selling price is adequate.
- Supports profit margin planning.

❏ 5 Indicates Operational Stability

- Consistent operating margin shows stable business performance.

❏ 6 Useful for Management Evaluation

- Helps assess managerial efficiency in controlling operations.

The Operating Profit Ratio is a valuable tool for measuring operational efficiency and profitability. It helps management analyze core performance and improve cost control strategies.

⚠ Limitations

Although the **Operating Profit Ratio** is useful for measuring operational efficiency, it has certain limitations that should be considered while interpreting it.

⚠ Main Limitations

❏ 1 Based on Historical Data

- Calculated from past financial statements.
- May not indicate future performance.

❏ 2 Affected by Accounting Policies

- Changes in depreciation methods or expense recognition affect operating profit.
- Reduces comparability between companies.

❏ 3 Ignores Capital Structure

- Does not consider interest costs and financial risk.
-

Management Accounting

- High operating profit does not always mean high overall profitability.

4 Excludes Non-Operating Income

- Gains from investments or other sources are ignored.
- May understate total profitability.

5 Industry Differences

- Operating margin varies across industries.
- Not suitable for comparing companies in different sectors.

6 Does Not Show Cash Position

- Based on accounting profit, not actual cash flow.

The Operating Profit Ratio is useful for analyzing core business performance, but it should be interpreted along with other financial ratios and qualitative factors for accurate evaluation.

The Operating Profit Ratio is an important measure of a company's core operating performance. It reflects efficiency in managing production and operating expenses.

4 Return on Capital Employed (ROCE)

Return on Capital Employed (ROCE) is a profitability ratio that measures the return earned on the total capital invested in the business.

It shows how efficiently the company uses its long-term funds (equity + debt) to generate operating profit.

□ Formula

$$\text{ROCE} = (\text{Operating Profit} \div \text{Capital Employed}) \times 100$$

Where:

□ **Operating Profit (EBIT)** = Profit before Interest and Tax

□ **Capital Employed** can be calculated as:

- Total Assets – Current Liabilities

OR

- Shareholders' Funds + Long-term Liabilities

□ Objectives

The **Return on Capital Employed (ROCE)** measures the return generated on the total capital invested in a business.

Its main objective is to evaluate how efficiently the company uses its long-term funds to generate operating profit.

Management Accounting

□ Main Objectives

❶ To Measure Overall Profitability

- Shows the return earned on total capital invested.
- Indicates earning efficiency of the business.

❷ To Evaluate Capital Utilization

- Assesses how effectively management uses long-term funds.

❸ To Compare Performance

- Enables comparison with competitors.
- Helps compare performance over different years.

❹ To Assist in Investment Decisions

- Helps investors assess whether returns are satisfactory.
- Assists management in capital allocation decisions.

❺ To Measure Managerial Efficiency

- Reflects management's ability to generate profit from available capital.

❻ To Analyze Financial Stability

- Higher ROCE indicates better financial strength and operational success.

The primary objective of ROCE is to measure the efficiency and profitability of total capital employed in the business, helping management and investors evaluate overall financial performance.

□ Illustration 1

□ Given:

Operating Profit = ₹2,00,000

Capital Employed = ₹10,00,000

□ Calculation

ROCE = $\frac{(2,00,000)}{10,00,000} \times 100$
= 20%

□ Interpretation: Company earns 20% return on total capital employed.

□ Illustration 2 (Finding Capital Employed)

Operating Profit = ₹3,00,000

ROCE = 15%

Management Accounting

$$\begin{aligned} \text{Capital Employed} &= (\text{Operating Profit} \times 100) \div \text{ROCE} \\ &= (3,00,000 \times 100) \div 15 \\ &= ₹20,00,000 \end{aligned}$$

□ Advantages

Return on Capital Employed (ROCE) measures the return generated on the total capital invested in a business. It is an important indicator of overall profitability and efficiency.

□ Main Advantages

❏ 1 Measures Overall Efficiency

- Shows how effectively total capital is used to generate profit.
- Reflects overall business performance.

❏ 2 Useful for Inter-Firm Comparison

- Helps compare companies within the same industry.
- Useful for benchmarking performance.

❏ 3 Assists in Investment Decisions

- Helps investors evaluate whether returns are satisfactory.
- Indicates attractiveness of investment.

❏ 4 Evaluates Managerial Performance

- Measures management's ability to utilize funds efficiently.

❏ 5 Considers Long-Term Funds

- Includes both equity and long-term debt.
- Provides comprehensive profitability view.

❏ 6 Helps in Capital Allocation

- Assists management in deciding where to invest resources.

ROCE is a powerful profitability ratio that evaluates how efficiently a company uses its total capital. It supports financial analysis, investment decisions, and performance evaluation.

⚠ Limitations

Although **ROCE** is a useful measure of overall profitability and capital efficiency, it has certain limitations that must be considered while interpreting it.

⚠ Main Limitations

❏ 1 Based on Accounting Profit

- Uses operating profit (EBIT), not actual cash flow.

Management Accounting

- May not reflect real liquidity position.

2 Affected by Accounting Policies

- Different depreciation or asset valuation methods affect profit and capital employed.
- Reduces comparability between firms.

3 Historical Cost of Assets

- Capital employed is based on book value.
- Inflation and market value changes are ignored.

4 Ignores Risk Factor

- Does not consider business or financial risk.
- High ROCE does not always mean low risk.

5 Industry Differences

- ROCE standards vary across industries.
- Not suitable for comparing different sectors.

6 Can Be Manipulated

- Companies may reduce capital employed temporarily to increase ROCE.
- May lead to misleading s.

ROCE is an important indicator of capital efficiency, but it has limitations such as reliance on accounting data and historical cost. It should be analyzed along with other financial ratios for accurate evaluation.

ROCE is a key profitability ratio that indicates how efficiently a company uses its total capital to generate operating profit. It is widely used to assess financial performance and investment efficiency.

5 Return on Equity (ROE)

Return on Equity (ROE) is a profitability ratio that measures the return earned on the **shareholders' funds**.

It shows how efficiently the company uses shareholders' investment to generate profit.

□ Formula

$$\text{ROE} = (\text{Net Profit} \div \text{Shareholders' Equity}) \times 100$$

Where:

□ **Net Profit** = Profit after tax

□ **Shareholders' Equity** =

Share Capital + Reserves & Surplus – Fictitious Assets

□ Objectives

The **Return on Equity (ROE)** measures the return earned on shareholders' funds. Its main objective is to evaluate how efficiently a company uses owners' investment to generate profit.

□ Main Objectives

❶ To Measure Shareholders' Return

- Shows how much profit is earned for each rupee invested by shareholders.

❷ To Evaluate Efficiency of Owners' Funds

- Assesses how effectively management utilizes equity capital.

❸ To Assess Investment Attractiveness

- Helps investors decide whether the company provides satisfactory returns.

❹ To Compare Performance

- Enables comparison across different years.
- Useful for comparing companies within the same industry.

❺ To Evaluate Managerial Performance

- Reflects management's ability to generate profit from shareholders' funds.

❻ To Support Financial Planning

- Assists in dividend policy and expansion decisions.

The primary objective of ROE is to measure the profitability and efficiency of shareholders' investment, helping investors and management evaluate financial performance.

□ Illustration 1

□ Given:

Net Profit = ₹2,00,000

Shareholders' Equity = ₹10,00,000

□ Calculation

ROE = $\frac{(2,00,000)}{10,00,000} \times 100$
= **20%**

□ Interpretation: Company earns 20% return on shareholders' investment.

□ Illustration 2 (Finding Net Profit)

ROE = 25%

Shareholders' Equity = ₹8,00,000

$$\text{Net Profit} = (25 \times 8,00,000) \div 100$$

$$= ₹2,00,000$$

□ Advantages

Return on Equity (ROE) measures the return earned on shareholders' funds. It indicates how efficiently a company uses owners' investment to generate profit.

□ Main Advantages

1 Measures Shareholders' Profitability

- Shows return earned on owners' capital.
- Indicates earning capacity from equity funds.

2 Useful for Investors

- Helps investors evaluate investment performance.
- Higher ROE attracts potential investors.

3 Evaluates Managerial Efficiency

- Reflects management's ability to use shareholders' funds effectively.

4 Facilitates Comparison

- Enables comparison across years.
- Useful for comparing companies within the same industry.

5 Assists in Financial Decision-Making

- Helps in dividend policy decisions.
- Supports expansion and reinvestment planning.

6 Indicates Growth Potential

- Consistently high ROE suggests strong growth and profitability.

ROE is an important indicator of shareholders' return and managerial efficiency. It helps investors and management assess financial performance and make informed decisions.

Limitations

Although **Return on Equity (ROE)** is an important measure of shareholders' return, it has certain limitations that should be considered during analysis.

Main Limitations

Affected by Financial Leverage

- High debt can increase ROE artificially.

Management Accounting

- Company may appear profitable but carry high financial risk.

2 Based on Accounting Profit

- Uses net profit, not actual cash flow.
- May not reflect real financial strength.

3 Influenced by Accounting Policies

- Changes in depreciation, inventory valuation, etc., affect net profit.
- Reduces comparability between firms.

4 Ignores Market Value of Equity

- Based on book value of shareholders' funds.
- Does not reflect current market conditions.

5 Industry Differences

- Ideal ROE varies from industry to industry.
- Not suitable for comparing different sectors.

6 Can Be Manipulated

- Share buybacks or accounting adjustments can artificially improve ROE.

ROE is a valuable measure of shareholders' return, but it may be influenced by debt levels, accounting methods, and historical data. It should be interpreted along with other financial ratios for accurate evaluation.

ROE is an important ratio that indicates how efficiently a company generates profit from shareholders' funds. It is widely used by investors to evaluate performance

Difference between ROCE & ROE

- **Return on Capital Employed (ROCE)** measures the return earned on **total capital employed** (equity + long-term debt).
- **Return on Equity (ROE)** measures the return earned only on **shareholders' funds**.

□ Comparison Table

Basis	ROCE	ROE
Full Form	Return on Capital Employed	Return on Equity
Measures	Return on total long-term funds	Return on shareholders' funds
Formula	(Operating Profit ÷ Capital	(Net Profit ÷ Shareholders'

Management Accounting

	Employed) $\times 100$	Equity) $\times 100$
Profit Used	Operating Profit (EBIT)	Net Profit (after tax)
Capital Considered	Equity + Long-term Debt	Only Equity
Purpose	Measures overall efficiency of capital	Measures shareholders' return
Impact of Debt	Less affected by debt	Highly affected by leverage
Usefulness	Useful for overall performance evaluation	Useful for investors

□ Key Difference in Simple Words

- **ROCE** → How efficiently total capital (owners + lenders) is used.
- **ROE** → How much profit shareholders earn on their investment.

ROCE gives a broader view of overall capital efficiency, while ROE focuses specifically on shareholders' profitability. Both ratios are important for financial analysis and investment decisions.

Profitability ratios are essential tools to measure a company's earning capacity and operational efficiency. They help assess financial health and guide strategic decisions.

3 Solvency Ratios

Solvency Ratios measure the ability of a business to meet its **long-term obligations**.

They show the long-term financial stability and capital structure of a company.

□ While liquidity ratios measure short-term strength, solvency ratios measure long-term financial soundness.

□ Objectives of Solvency Ratios

- To assess long-term solvency

The **objectives of solvency ratios** are to evaluate the long-term financial stability of a business and determine its ability to meet long-term obligations.

□ Main Objectives

1 To Assess Long-Term Solvency

- Determine whether the company can repay long-term debts.
- Evaluate overall financial strength.

2 To Analyze Capital Structure

- Examine the proportion of debt and equity.
- Assess financial leverage.

3 To Measure Financial Risk

- Identify risk arising from excessive borrowing.
- Evaluate dependence on external funds.

4 To Provide Confidence to Long-Term Creditors

- Assure lenders about the company's repayment capacity.

5 To Evaluate Interest Paying Capacity

- Assess ability to pay interest regularly (Interest Coverage Ratio).

6 To Support Financial Planning

- Help management maintain balanced capital structure.
- Assist in long-term investment decisions.

The primary objective of solvency ratios is to measure a company's long-term financial stability and ensure it can meet its long-term obligations while maintaining a healthy capital structure.

Solvency Ratios measure the long-term financial stability of a business. They evaluate the company's ability to meet its long-term obligations and maintain a balanced capital structure.

□ Main Advantages

1 Measures Long-Term Financial Stability

- Indicates whether the company can meet long-term debts.
- Shows overall financial soundness.

2 Evaluates Capital Structure

- Reveals proportion of debt and equity.
- Helps maintain balanced financial structure.

3 Assesses Financial Risk

- Identifies risk arising from excessive borrowing.
- Helps avoid over-leveraging.

4 Useful for Long-Term Creditors

- Provides assurance to banks and financial institutions.
- Helps in credit evaluation.

5 Supports Investment Decisions

- Investors use solvency ratios to assess risk and stability.

6 Helps in Financial Planning

- Assists management in deciding appropriate debt levels.

Management Accounting

- Aids in long-term funding decisions.
-

Solvency ratios are essential for evaluating long-term financial strength, capital structure, and risk level. They help management, investors, and lenders make informed financial decisions.

Although **Solvency Ratios** are useful for measuring long-term financial stability, they have certain limitations that should be considered while interpreting them.

⚠ Main Limitations

❶ Based on Historical Data

- Calculated from past financial statements.
- May not reflect future financial conditions.

❷ Affected by Accounting Policies

- Different depreciation and asset valuation methods affect ratios.
- Reduces comparability between companies.

❸ Ignore Market Conditions

- Do not consider economic changes or industry trends.

❹ Do Not Reflect Cash Flow Position

- Based on accounting figures, not actual cash availability.

❺ Industry Differences

- Ideal solvency ratios vary across industries.
- Difficult to compare companies from different sectors.

❻ Can Be Misleading if Used Alone

- One solvency ratio does not give complete financial picture.
- Should be used with liquidity and profitability ratios.

Solvency ratios are important indicators of long-term financial strength, but they have limitations such as reliance on historical data and accounting methods. Proper interpretation along with other financial tools is necessary for accurate analysis.

□ Main Solvency Ratios

❶ Debt-Equity Ratio

The **Debt–Equity Ratio** is a solvency ratio that measures the relationship between **long-term debt** and **shareholders' funds**.

It shows the proportion of external funds (debt) and internal funds (equity) used in financing the business.

□ Formula

Debt–Equity Ratio = Long-term Debt ÷ Shareholders' Funds

Where:

□ **Long-term Debt** = Debentures + Long-term Loans

□ **Shareholders' Funds** = Share Capital + Reserves & Surplus

□ Ideal Ratio

Generally **2 : 1** (may vary by industry)

□ Purpose

The **Debt–Equity Ratio** measures the relationship between long-term debt and shareholders' funds.

Its purpose is to evaluate the financial structure and long-term solvency of a business.

□ Main Purposes

❶ To Measure Financial Leverage

- Shows how much debt is used compared to equity.
- Indicates the level of borrowing.

❷ To Assess Financial Risk

- Higher ratio means higher financial risk.
- Helps evaluate risk for lenders and investors.

❸ To Analyze Capital Structure

- Determines whether the company has a balanced mix of debt and equity.

❹ To Provide Confidence to Creditors

- Helps lenders assess repayment capacity.
- Ensures safety of long-term loans.

❺ To Assist in Financial Planning

- Helps management decide the ideal debt level.
- Supports decisions regarding raising additional funds.

❻ To Evaluate Long-Term Stability

- Indicates whether the company is financially stable over the long term.

The primary purpose of the Debt–Equity Ratio is to evaluate the balance between debt and equity financing, measure financial risk, and assess long-term financial stability.

□ Illustration 1 – Basic Calculation

□ Given:

Management Accounting

Long-term	Debt	=	₹6,00,000
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Shareholders' Funds = ₹3,00,000

□ Calculation

Debt–Equity	Ratio	=	6,00,000 ÷ 3,00,000
= 2 : 1			

□ Interpretation: Company uses ₹2 debt for every ₹1 equity (high leverage).

□ Illustration 2 – With Detailed Data

□ Given:

Liabilities:

- Debentures = ₹4,00,000
- Bank Loan (Long-term) = ₹2,00,000

Equity:

- Share Capital = ₹5,00,000
- Reserves & Surplus = ₹1,00,000

□ Step 1: Calculate Totals

Long-term	Debt	=	4,00,000 + 2,00,000
= ₹6,00,000			
Shareholders'	Funds	=	5,00,000 + 1,00,000
= ₹6,00,000			

□ Step 2: Calculate Ratio

Debt–Equity	Ratio	=	6,00,000 ÷ 6,00,000
= 1 : 1			

□ Interpretation: Balanced capital structure.

□ Illustration 3 – Finding Equity

□ Given:

Debt–Equity	Ratio	=	1.5 : 1
Long-term Debt = ₹9,00,000			

□ Calculation

1.5 = 9,00,000 ÷ Equity

Equity		=	9,00,000 ÷ 1.5
= ₹6,00,000			

Management Accounting

□ Advantages

The **Debt–Equity Ratio** measures the proportion of long-term debt and shareholders' funds used to finance a business. It helps evaluate financial leverage and long-term stability.

□ Main Advantages

❏ 1 Measures Financial Risk

- Indicates level of financial leverage.
- Higher ratio shows higher risk.

❏ 2 Evaluates Capital Structure

- Helps determine whether debt and equity are properly balanced.

❏ 3 Useful for Creditors

- Assists lenders in assessing long-term repayment capacity.
- Provides confidence to financial institutions.

❏ 4 Assists in Investment Decisions

- Investors use it to evaluate financial stability and risk.

❏ 5 Helps in Financial Planning

- Guides management in deciding appropriate borrowing levels.

❏ 6 Facilitates Inter-Firm Comparison

- Useful for comparing companies within the same industry.

The Debt–Equity Ratio is an important solvency ratio that helps assess financial leverage, capital structure balance, and long-term financial stability.

△ Limitations

Although the **Debt–Equity Ratio** is an important measure of financial leverage and capital structure, it has certain limitations that must be considered during analysis.

△ Main Limitations

❏ 1 Based on Book Values

- Calculated using book values from the balance sheet.
- Does not reflect market value of equity.

❷ Ignores Short-Term Liabilities

- Considers only long-term debt.
- May not show complete financial risk.

❸ Affected by Accounting Policies

- Changes in asset valuation or depreciation affect shareholders' funds.
- Reduces comparability between companies.

❹ Industry Differences

- Ideal ratio varies across industries.
- Not suitable for comparing companies in different sectors.

❺ Does Not Reflect Profitability

- A low ratio does not guarantee high profitability.
- Does not measure earning capacity.

❻ Can Be Misleading if Used Alone

- Should be analyzed along with other solvency and profitability ratios.

The Debt–Equity Ratio is useful for evaluating financial leverage, but it has limitations such as reliance on book values and exclusion of short-term liabilities. Proper interpretation with other financial tools is essential for accurate analysis.

The Debt–Equity Ratio is an important solvency ratio that indicates the proportion of debt and equity in financing a business. It helps assess financial stability and risk level.

❷ Proprietary Ratio

The **Proprietary Ratio** is a solvency ratio that measures the proportion of **total assets financed by shareholders' funds**.

It indicates the degree of financial stability and the extent to which assets are funded by owners' capital.

□ Formula

Proprietary Ratio = Shareholders' Funds ÷ Total Assets

Where:

□ **Shareholders' Funds** = Share Capital + Reserves & Surplus

□ **Total Assets** = Fixed Assets + Current Assets

□ Ideal Ratio

Generally **0.5 or more (50%)** is considered satisfactory.

Higher ratio indicates stronger financial position.

Management Accounting

□ Purpose

The **Proprietary Ratio** measures the proportion of total assets financed by shareholders' funds.

Its purpose is to evaluate the company's long-term financial stability and owners' contribution.

□ Main Purposes

❶ To Measure Financial Stability

- Shows the extent to which assets are financed by owners' capital.
- Higher ratio indicates stronger financial position.

❷ To Assess Capital Structure

- Helps analyze balance between equity and external liabilities.

❸ To Evaluate Financial Risk

- Lower ratio indicates higher dependence on debt.
- Higher ratio means lower financial risk.

❹ To Provide Confidence to Creditors

- Assures lenders about safety of their funds.
- Indicates long-term solvency.

❺ To Assist in Financial Planning

- Helps management decide appropriate level of borrowing.

❻ To Support Investment Decisions

- Investors assess stability before investing.

The main purpose of the Proprietary Ratio is to determine the proportion of total assets financed by shareholders' funds and to assess long-term financial stability and risk.

□ Illustration 1 – Basic Calculation

□ Given:

Shareholders' Funds = ₹8,00,000

Total Assets = ₹12,00,000

□ Calculation

Proprietary Ratio = $\frac{8,00,000}{12,00,000}$
= **0.67 (or 67%)**

□ Interpretation: 67% of assets are financed by owners, indicating strong financial stability.

□ Illustration 2 – With Detailed Data

□ Given:

Equity:

- Share Capital = ₹5,00,000
- Reserves & Surplus = ₹2,00,000

Assets:

- Fixed Assets = ₹6,00,000
- Current Assets = ₹4,00,000

□ Step 1: Calculate Totals

Shareholders' Funds = 5,00,000 + 2,00,000
= ₹7,00,000

Total Assets = 6,00,000 + 4,00,000
= ₹10,00,000

□ Step 2: Calculate Ratio

Proprietary Ratio = $\frac{7,00,000}{10,00,000}$
= **0.7 (70%)**

□ Interpretation: Company is financially stable with high owners' contribution.

□ Advantages

The **Proprietary Ratio** measures the proportion of total assets financed by shareholders' funds. It indicates long-term financial stability and owners' contribution in the business.

□ Main Advantages

1 Indicates Financial Stability

- Higher ratio shows stronger financial position.
- Reflects long-term solvency of the business.

2 Measures Owners' Contribution

- Shows the extent to which assets are financed by equity.
- Indicates independence from external borrowing.

3 Assesses Financial Risk

- Lower ratio means higher dependence on debt.
- Helps evaluate financial risk level.

4 Useful for Creditors

- Provides assurance to long-term lenders about safety of funds.

5 Helps in Capital Structure Analysis

- Assists management in maintaining balanced financing structure.

6 Facilitates Inter-Firm Comparison

- Useful for comparing companies within the same industry.

The Proprietary Ratio is an important solvency ratio that measures financial stability and owners' stake in total assets. It helps evaluate risk and long-term financial strength.

△ Limitations

Although the **Proprietary Ratio** is useful for measuring long-term financial stability, it has certain limitations that should be considered during analysis.

△ Main Limitations

1 Based on Book Values

- Uses book value of assets and equity.
- Does not reflect current market value.

2 Ignores Profitability

- High proprietary ratio does not guarantee high profits.
- Does not measure earning capacity.

3 Industry Differences

- Ideal ratio varies across industries.
- Not suitable for comparing different sectors.

4 Does Not Consider Liquidity

- Focuses only on long-term solvency.
- Does not measure short-term financial position.

5 Affected by Accounting Policies

- Changes in asset valuation or depreciation affect ratio.
- Reduces comparability.

6 Incomplete Risk Assessment

- Does not consider future risks or economic conditions.

The Proprietary Ratio is helpful for assessing long-term financial stability, but it has limitations such as reliance on book values and ignoring profitability. It should be used along with other financial ratios for accurate evaluation.

The Proprietary Ratio measures the extent to which total assets are financed by shareholders' funds. A higher ratio indicates better financial stability and lower risk.

3 Interest Coverage Ratio

Management Accounting

The **Interest Coverage Ratio (ICR)** is a solvency ratio that measures a company's ability to pay interest on its outstanding debt.

It shows how many times the company's operating profit (EBIT) covers its interest expense.

□ Formula

Interest Coverage Ratio = EBIT ÷ Interest

Where:

□ **EBIT** (Earnings Before Interest and Tax) = Operating Profit

□ **Interest** = Interest on long-term debt

□ Ideal Ratio

Generally **2 times or more** is considered satisfactory.

Higher ratio indicates better ability to pay interest.

□ Purpose

The **Interest Coverage Ratio (ICR)** measures how many times a company's operating profit (EBIT) can cover its interest expense.

Its purpose is to evaluate the company's ability to meet fixed interest obligations and assess long-term financial safety.

□ Main Purposes

❶ To Measure Interest-Paying Capacity

- Determines whether the company can pay interest regularly.
- Higher ratio means stronger repayment ability.

❷ To Assess Financial Risk

- Low ratio indicates higher financial risk.
- Helps identify risk due to excessive borrowing.

❸ To Evaluate Long-Term Solvency

- Indicates company's financial stability over time.

❹ To Provide Assurance to Lenders

- Helps banks and financial institutions assess creditworthiness.

❺ To Support Borrowing Decisions

- Assists management in deciding whether additional debt can be taken safely.

❻ To Monitor Debt Management Efficiency

- Reflects how effectively the company manages its debt obligations.

Management Accounting

The primary purpose of the Interest Coverage Ratio is to assess a company's ability to meet interest obligations and evaluate long-term financial safety and debt-servicing capacity.

□ Illustration 1 – Basic Calculation

□ Given:

EBIT = ₹3,00,000

Interest = ₹1,00,000

□ Calculation

Interest Coverage Ratio = $\frac{3,00,000}{1,00,000}$

= **3 times**

□ Interpretation: Company can pay its interest 3 times from operating profit.

□ Illustration 2 – Using Net Profit

□ Given:

Net Profit = ₹2,00,000

Interest = ₹50,000

Tax = ₹50,000

□ Step 1: Calculate EBIT

EBIT = Net Profit + Interest + Tax

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

= ₹3,00,000

□ Step 2: Calculate Ratio

Interest Coverage Ratio = $\frac{3,00,000}{50,000}$

= **6 times**

□ Interpretation: Strong interest-paying capacity.

□ Advantages

The **Interest Coverage Ratio (ICR)** measures how many times a company's operating profit (EBIT) can cover its interest expense. It is an important solvency ratio for evaluating debt-servicing capacity.

□ Main Advantages

1 Measures Interest-Paying Capacity

- Shows ability to meet fixed interest obligations.

Management Accounting

- Higher ratio indicates stronger financial position.

2 Assesses Financial Risk

- Helps identify risk from excessive borrowing.
- Low ratio warns of potential default risk.

3 Useful for Lenders and Creditors

- Assists banks in evaluating creditworthiness.
- Provides assurance about timely interest payment.

4 Evaluates Debt Management Efficiency

- Reflects how effectively the company manages borrowed funds.

5 Supports Borrowing Decisions

- Helps management decide whether additional loans can be safely taken.

6 Facilitates Inter-Firm Comparison

- Useful for comparing companies within the same industry.

The Interest Coverage Ratio is a valuable tool for assessing a company's ability to meet interest obligations and manage long-term debt responsibly.

⚠ Limitations

Although the **Interest Coverage Ratio (ICR)** is useful for measuring interest-paying capacity, it has certain limitations that should be considered while analyzing it.

⚠ Main Limitations

1 Based on Accounting Profit

- Uses EBIT (accounting profit), not actual cash flow.
- May not reflect real ability to pay interest.

2 Ignores Principal Repayment

- Measures only interest coverage.
- Does not consider repayment of loan principal.

3 Affected by Accounting Policies

- Changes in depreciation or expense recognition affect EBIT.
- Reduces comparability between firms.

4 Industry Differences

- Ideal ratio varies across industries.
- Not suitable for comparing different sectors.

5 Short-Term Focus

- Based on current year's profit.

Management Accounting

- Does not guarantee long-term stability.

6 Can Be Misleading if Used Alone

- Should be analyzed along with other solvency and liquidity ratios.

The Interest Coverage Ratio is useful for assessing debt-servicing capacity, but it has limitations such as reliance on accounting profit and ignoring principal repayment. It should be used along with other financial ratios for accurate evaluation.

The Interest Coverage Ratio is an important solvency ratio that evaluates a company's ability to meet interest obligations and indicates long-term financial strength.

Solvency ratios are important tools for evaluating long-term financial strength and capital structure. They help determine whether a company can meet its long-term financial commitments.

4 Activity (Turnover) Ratios

Activity Ratios (also called **Turnover Ratios**) measure how efficiently a company uses its assets to generate sales.

They show the speed at which assets are converted into sales or cash.

□ These ratios indicate **operational efficiency** of the business.

□ The **objectives of Activity Ratios** are to measure the efficiency with which a company uses its assets and manages its working capital to generate sales.

These ratios focus on operational performance and asset utilization.

□ Main Objectives

1 To Measure Asset Utilization

- Evaluate how efficiently assets are used to generate revenue.

2 To Assess Inventory Management

- Determine how quickly inventory is sold.
- Identify overstocking or slow-moving goods.

3 To Evaluate Receivables Management

- Measure how efficiently debts are collected from customers.

4 To Analyze Payables Management

- Assess how effectively the company manages payments to suppliers.

5 To Improve Working Capital Efficiency

Management Accounting

- Ensure optimal use of current assets and current liabilities.

6 To Enhance Operational Efficiency

- Identify areas where resources are underutilized.

7 To Support Managerial Decision-Making

- Help in improving credit policy and inventory control.

The primary objective of Activity Ratios is to evaluate operational efficiency and ensure effective utilization of assets and working capital for smooth business operations.

Activity (Turnover) Ratios measure how efficiently a company uses its assets and manages its working capital to generate sales.

□ Main Advantages

1 Measures Operational Efficiency

- Shows how effectively assets are used to generate revenue.
- Reflects efficiency of business operations.

2 Improves Inventory Management

- Helps identify slow-moving or excess inventory.
- Reduces storage and holding costs.

3 Enhances Receivables Control

- Evaluates speed of collection from customers.
- Helps improve credit policy.

4 Assists in Working Capital Management

- Ensures proper utilization of current assets.
- Helps maintain smooth business operations.

5 Identifies Strengths and Weaknesses

- Highlights areas where resources are underutilized.
- Helps management take corrective action.

6 Facilitates Performance Comparison

- Useful for comparing performance across years.
- Helps compare companies within the same industry.

Activity ratios are valuable tools for evaluating operational efficiency and asset utilization. They help improve inventory control, receivables management, and overall business performance. Although **Activity (Turnover) Ratios** are useful for measuring operational efficiency, they have certain limitations that should be considered during analysis.

△ Main Limitations

❶ Based on Historical Data

- Calculated from past financial statements.
- May not reflect current or future performance.

❷ Affected by Seasonal Variations

- Seasonal businesses may show misleading turnover ratios.

❸ Influenced by Accounting Policies

- Different inventory valuation methods affect inventory turnover ratio.
- Reduces comparability between firms.

❹ Ignores Qualitative Factors

- Does not consider market conditions or management efficiency.

❺ May Be Misleading if Used Alone

- Single turnover ratio does not give complete picture.
- Should be analyzed with liquidity and profitability ratios.

❻ Does Not Reflect Cash Flow Timing

- High turnover does not always mean strong cash position.

Activity ratios are helpful in evaluating operational efficiency, but they have limitations such as reliance on historical data and seasonal variations. Proper interpretation along with other financial ratios is essential.

□ Main Activity Ratios

❶ Inventory Turnover Ratio

Formula:

The **Inventory Turnover Ratio** is an activity ratio that measures how many times inventory is sold and replaced during a period.

It indicates the efficiency of inventory management.

- Higher ratio → Fast-moving stock
- Lower ratio → Slow-moving or excess stock

□ Formula

Inventory Turnover Ratio = Cost of Goods Sold ÷ Average Inventory

Where:

□ **Average Inventory = (Opening Stock + Closing Stock) ÷ 2**

□ Objectives

The **Inventory Turnover Ratio** measures how many times inventory is sold and replaced during a period.

Its main objective is to evaluate the efficiency of inventory management and stock control.

□ Main Objectives

❶ To Measure Stock Efficiency

- Determines how quickly inventory is sold.
- Indicates whether stock is fast-moving or slow-moving.

❷ To Avoid Overstocking and Understocking

- Prevents excess inventory that increases storage cost.
- Avoids shortage of stock that may affect sales.

❸ To Improve Working Capital Management

- Ensures funds are not unnecessarily blocked in inventory.

❹ To Reduce Holding Costs

- Helps minimize storage, insurance, and obsolescence costs.

❺ To Assess Operational Performance

- Reflects efficiency of purchasing and sales policies.

❻ To Support Managerial Decision-Making

- Assists in improving stock control and procurement planning.

The primary objective of the Inventory Turnover Ratio is to measure inventory management efficiency and ensure optimal stock levels for smooth business operations.

□ Illustration 1 – Basic Calculation

□ **Given:**

Management Accounting

Cost	of	Goods	Sold	(COGS)	=	₹6,00,000
Opening		Stock			=	₹80,000

Closing Stock = ₹1,20,000

□ Step 1: Calculate Average Inventory

$$\text{Average Inventory} = \frac{(80,000 + 1,20,000)}{2} = ₹1,00,000$$

□ Step 2: Calculate Ratio

$$\text{Inventory Turnover Ratio} = \frac{6,00,000}{1,00,000} = 6 \text{ times}$$

□ Interpretation: Inventory is sold and replaced 6 times during the year.

□ Illustration 2 – Without Opening Stock

COGS	=	₹4,00,000
Closing	Stock	= ₹1,00,000

(Assume Closing Stock as Average Inventory)

$$\text{Inventory Turnover Ratio} = \frac{4,00,000}{1,00,000} = 4 \text{ times}$$

□ Advantages

The **Inventory Turnover Ratio** measures how efficiently a company sells and replaces its inventory during a period. It is an important indicator of stock management efficiency.

□ Main Advantages

1 Measures Stock Efficiency

- Shows how quickly inventory is sold.
- Higher turnover indicates fast-moving stock.

2 Improves Inventory Control

- Helps avoid overstocking and understocking.
- Ensures optimal stock levels.

3 Reduces Holding Costs

- Minimizes storage, insurance, and obsolescence costs.

4 Enhances Working Capital Management

- Prevents unnecessary blocking of funds in inventory.

5 Assists in Purchase Planning

Management Accounting

- Helps management decide appropriate purchase quantity and timing.

6 Identifies Slow-Moving Stock

- Detects outdated or obsolete inventory.
- Helps take corrective action.

The Inventory Turnover Ratio is a valuable tool for improving stock management, reducing costs, and ensuring efficient use of working capital.

△ Limitations

Although the **Inventory Turnover Ratio** is useful for measuring stock efficiency, it has certain limitations that should be considered while interpreting it.

△ Main Limitations

1 Affected by Seasonal Variations

- Seasonal businesses may show misleading turnover ratios.
- Year-end stock may not represent average stock level.

2 Influenced by Inventory Valuation Methods

- FIFO, LIFO, or Weighted Average methods affect cost of goods sold.
- Reduces comparability between companies.

3 Ignores Profit Margin

- High turnover does not necessarily mean high profitability.

4 Does Not Show Stock Quality

- Does not distinguish between good and obsolete inventory.

5 Based on Historical Data

- Calculated using past financial information.
- May not reflect current market conditions.

6 Can Be Misleading if Used Alone

- Should be analyzed with other activity and profitability ratios.

The Inventory Turnover Ratio is helpful for evaluating inventory management efficiency, but it has limitations such as seasonal impact and accounting method differences. Proper analysis with other financial tools is essential.

The Inventory Turnover Ratio is an important activity ratio that evaluates how efficiently a company manages its inventory and controls stock levels.

2 Debtors Turnover Ratio

The **Debtors Turnover Ratio** (also called **Receivables Turnover Ratio**) measures how quickly a company collects cash from its credit customers.

It indicates the efficiency of credit and collection policy.

- ☐ Higher ratio → Faster collection
- ☐ Lower ratio → Slow collection / risk of bad debts

☐ Formula

Debtors Turnover Ratio = Net Credit Sales ÷ Average Debtors

Where:

☐ **Average Debtors = (Opening Debtors + Closing Debtors) ÷ 2**

If opening debtors are not given, closing debtors may be used.

☐ Related Ratio – Average Collection Period

Average Collection Period = 365 days ÷ Debtors Turnover Ratio

This shows the number of days taken to collect payment.

☐ Illustration 1 – Basic Calculation

☐ **Given:**

Net Credit Sales	=	₹8,00,000
Opening Debtors	=	₹70,000

Closing Debtors = ₹90,000

☐ **Step 1: Calculate Average Debtors**

Average Debtors	=	(70,000 + 90,000)	÷	2
= ₹80,000				

☐ **Step 2: Calculate Debtors Turnover Ratio**

Debtors Turnover Ratio	=	8,00,000	÷	80,000
= 10 times				

☐ Interpretation: Debtors are collected 10 times during the year.

☐ **Step 3: Average Collection Period**

$$365 \div 10 = 36.5 \text{ days}$$

□ Interpretation: Company collects payment in about 37 days.

□ Illustration 2 – Without Opening Debtors

$$\text{Net Credit Sales} = ₹6,00,000$$

$$\text{Closing Debtors} = ₹1,00,000$$

$$\text{Debtors Turnover Ratio} = \frac{6,00,000}{1,00,000}$$

$$= 6 \text{ times}$$

$$\text{Average Collection Period} = \frac{365}{6}$$

$$= 61 \text{ days}$$

□ Interpretation: Slower collection compared to Illustration 1.

□ Objectives

The **Debtors Turnover Ratio** measures how efficiently a company collects cash from its credit customers.

Its main objective is to evaluate the effectiveness of credit and collection policies.

□ Main Objectives

1 To Measure Collection Efficiency

- Determines how quickly debts are collected from customers.

2 To Evaluate Credit Policy

- Assesses whether credit terms are too strict or too liberal.

3 To Improve Cash Flow

- Ensures faster conversion of receivables into cash.

4 To Reduce Risk of Bad Debts

- Helps identify slow-paying or doubtful customers.

5 To Enhance Working Capital Management

- Prevents excessive funds from being blocked in receivables.

6 To Support Managerial Decisions

Management Accounting

- Assists in revising credit terms and collection procedures.

The primary objective of the Debtors Turnover Ratio is to evaluate the efficiency of receivables management and ensure timely collection of credit sales to maintain healthy cash flow.

□ Advantages

□ Main Advantages

❏ 1 Measures Collection Efficiency

- Shows how quickly receivables are converted into cash.
- Higher ratio indicates efficient collection.

❏ 2 Improves Cash Flow

- Faster collection increases liquidity.
- Reduces need for additional borrowing.

❏ 3 Evaluates Credit Policy

- Helps assess whether credit terms are appropriate.
- Identifies need to tighten or relax credit policy.

❏ 4 Reduces Risk of Bad Debts

- Highlights slow-paying customers.
- Helps management take corrective action.

❏ 5 Enhances Working Capital Management

- Prevents excessive funds from being blocked in receivables.

❏ 6 Facilitates Performance Comparison

- Useful for comparing collection efficiency over different years.

The Debtors Turnover Ratio is a valuable tool for assessing credit management efficiency, improving cash flow, and reducing bad debt risk.

⚠ Limitations

Although the **Debtors Turnover Ratio** is useful for evaluating collection efficiency, it has certain limitations that should be considered during analysis.

⚠ Main Limitations

❏ 1 Based on Historical Data

- Calculated from past financial statements.

Management Accounting

- May not reflect current credit conditions.

2 Affected by Seasonal Sales

- Seasonal businesses may show misleading turnover ratios.
- Year-end debtor balance may not represent average level.

3 Does Not Show Quality of Debtors

- High ratio does not guarantee all debtors are reliable.
- Does not indicate doubtful or bad debts separately.

4 Influenced by Credit Policy

- Strict credit policy may increase ratio but reduce sales.
- Liberal policy may increase sales but reduce ratio.

5 Ignores Cash Sales

- Only considers credit sales.
- Does not reflect total sales performance.

6 Can Be Misleading if Used Alone

- Should be analyzed with liquidity and profitability ratios.

The Debtors Turnover Ratio is helpful for measuring receivables efficiency, but it has limitations such as seasonal effects and reliance on accounting data. It should be interpreted along with other financial indicators for accurate evaluation.

The Debtors Turnover Ratio evaluates how efficiently a company collects money from customers. It helps in managing credit sales and improving cash flow.

3 Creditors Turnover Ratio

Formula:

The **Creditors Turnover Ratio** (also called **Accounts Payable Turnover Ratio**) measures how quickly a company pays its suppliers for credit purchases.

It indicates the efficiency of payment policy.

- ☐ Higher ratio → Faster payment to suppliers
- ☐ Lower ratio → Slower payment / Longer credit period

Formula

Creditors Turnover Ratio = Net Credit Purchases ÷ Average Creditors

Where:

☐ **Average Creditors = (Opening Creditors + Closing Creditors) ÷ 2**

If opening creditors are not given, closing creditors may be used.

□ Related Ratio – Average Payment Period

Average Payment Period = 365 days ÷ Creditors Turnover Ratio

This shows the average number of days taken to pay suppliers.

□ Illustration 1 – Basic Calculation

□ Given:

Net	Credit	Purchases	=	₹6,00,000
Opening		Creditors	=	₹50,000

Closing Creditors = ₹70,000

□ Step 1: Calculate Average Creditors

$$\begin{aligned} \text{Average Creditors} &= (50,000 + 70,000) \div 2 \\ &= ₹60,000 \end{aligned}$$

□ Step 2: Calculate Ratio

$$\begin{aligned} \text{Creditors Turnover Ratio} &= 6,00,000 \div 60,000 \\ &= 10 \text{ times} \end{aligned}$$

□ Interpretation: Company pays suppliers 10 times in a year.

□ Step 3: Average Payment Period

$$365 \div 10 = 36.5 \text{ days}$$

□ Interpretation: Company pays suppliers in about 37 days.

□ Illustration 2 – Without Opening Creditors

Net	Credit	Purchases	=	₹5,00,000
Closing Creditors = ₹1,00,000				

$$\begin{aligned} \text{Creditors Turnover Ratio} &= 5,00,000 \div 1,00,000 \\ &= 5 \text{ times} \end{aligned}$$

$$\begin{aligned} \text{Average Payment Period} &= 365 \div 5 \\ &= 73 \text{ days} \end{aligned}$$

□ Interpretation: Slower payment compared to Illustration 1.

□ Objectives

The **Creditors Turnover Ratio** measures how efficiently a company pays its suppliers for credit purchases.

Management Accounting

Its main objective is to evaluate the effectiveness of the company's payment policy and working capital management.

□ Main Objectives

❶ To Measure Payment Efficiency

- Determines how quickly the company pays its suppliers.

❷ To Evaluate Credit Policy

- Assesses whether the company is taking full advantage of credit terms.

❸ To Maintain Good Supplier Relations

- Ensures timely payments to maintain business goodwill.

❹ To Manage Working Capital

- Helps in balancing cash outflows and liquidity.

❺ To Assess Financial Stability

- Indicates the company's ability to meet short-term obligations.

❻ To Support Managerial Decisions

- Assists in planning payment schedules and cash management strategies.

The primary objective of the Creditors Turnover Ratio is to evaluate how efficiently a company manages its payments to suppliers and maintains healthy working capital and supplier relationships.

□ Advantages

The **Creditors Turnover Ratio** measures how efficiently a company pays its suppliers for credit purchases. It plays an important role in managing short-term liabilities and maintaining supplier relationships.

□ Main Advantages

❶ Measures Payment Efficiency

Management Accounting

- Shows how quickly the company pays its suppliers.
- Indicates effectiveness of payment management.

2 Helps in Working Capital Management

- Assists in planning cash outflows.
- Maintains proper balance between liquidity and payments.

3 Maintains Good Supplier Relations

- Timely payments build goodwill and trust with suppliers.

4 Assesses Financial Discipline

- Reflects company's ability to meet short-term obligations.

5 Assists in Credit Policy Evaluation

- Helps determine whether the company is using available credit terms effectively.

6 Facilitates Performance Comparison

- Useful for comparing payment efficiency over different years.

The Creditors Turnover Ratio is a valuable tool for evaluating payment efficiency, managing working capital, and maintaining strong supplier relationships.

⚠ Limitations

Although the **Creditors Turnover Ratio** is useful for measuring payment efficiency, it has certain limitations that should be considered during analysis.

⚠ Main Limitations

1 Based on Historical Data

- Calculated from past financial statements.
- May not reflect current financial conditions.

2 Affected by Seasonal Purchases

- Seasonal buying patterns may distort the ratio.
- Year-end creditors may not represent average level.

3 Does Not Reflect Credit Terms

- Does not consider the actual credit period allowed by suppliers.

Management Accounting

- A low ratio may still be acceptable if long credit terms exist.

4 Ignores Cash Purchases

- Considers only credit purchases.
- Does not reflect total purchase activity.

5 May Mislead if Used Alone

- Should be analyzed along with liquidity ratios.
- Does not show overall financial health.

6 Does Not Show Quality of Supplier Relationships

- Ratio does not indicate goodwill or negotiation strength.

The Creditors Turnover Ratio helps measure payment efficiency, but it has limitations such as seasonal effects and reliance on historical data. It should be interpreted with other financial ratios for accurate analysis.

The Creditors Turnover Ratio evaluates how efficiently a company pays its suppliers. It helps maintain proper working capital management and healthy supplier relationships.

4 Fixed Asset Turnover Ratio

The **Fixed Asset Turnover Ratio** is an activity ratio that measures how efficiently a company uses its **fixed assets** to generate sales.

It shows the relationship between **net sales and net fixed assets**.

- ☐ Higher ratio → Better utilization of fixed assets
- ☐ Lower ratio → Underutilization of assets

☐ Formula

Fixed Asset Turnover Ratio = Net Sales ÷ Net Fixed Assets

Where:

- ☐ **Net Fixed Assets** = Fixed Assets – Accumulated Depreciation

☐ Objectives

The **Fixed Asset Turnover Ratio** measures how efficiently a company uses its fixed assets to generate sales.

Its main objective is to evaluate the effectiveness of long-term asset utilization.

Management Accounting

□ Main Objectives

❶ To Measure Asset Utilization Efficiency

- Determines how effectively fixed assets are used to generate revenue.

❷ To Evaluate Production Capacity Usage

- Assesses whether plant and machinery are fully utilized.

❸ To Improve Investment Decisions

- Helps management decide whether additional fixed assets are needed.

❹ To Assess Operational Performance

- Reflects efficiency of operations and management.

❺ To Support Capital Budgeting Decisions

- Assists in evaluating return from long-term investments.

❻ To Compare Performance

- Enables comparison of asset efficiency across years or with competitors.

The primary objective of the Fixed Asset Turnover Ratio is to measure how efficiently a company utilizes its fixed assets to generate sales and support long-term operational performance.

□ Illustration 1 – Basic Calculation

□ Given:

Net Sales = ₹12,00,000

Net Fixed Assets = ₹4,00,000

□ Calculation

Fixed Asset Turnover Ratio = $\frac{12,00,000}{4,00,000}$

= **3 times**

□ Interpretation: Each ₹1 invested in fixed assets generates ₹3 in sales.

□ Illustration 2 – With Detailed Data

□ Given:

Fixed Assets = ₹6,00,000

Accumulated Depreciation = ₹1,00,000

Net Sales = ₹15,00,000

□ Step 1: Calculate Net Fixed Assets

Net Fixed Assets = $6,00,000 - 1,00,000$

= ₹5,00,000

Management Accounting

❑ Step 2: Calculate Ratio

$$\text{Fixed Asset Turnover Ratio} = \frac{15,00,000}{5,00,000} = \mathbf{3 \text{ times}}$$

□ Advantages

The **Fixed Asset Turnover Ratio** measures how efficiently a company uses its fixed assets to generate sales. It is an important indicator of asset productivity and operational efficiency.

□ Main Advantages

1 Shows Efficiency of Asset Utilization

- Indicates how effectively plant, machinery, and equipment are used.
- Higher ratio reflects better productivity.

2 Assists in Performance Evaluation

- Helps evaluate operational efficiency of management.
- Identifies underutilized assets.

3 Supports Capital Budgeting Decisions

- Helps decide whether new fixed assets are required.
- Assists in evaluating returns from long-term investments.

4 Facilitates Inter-Firm Comparison

- Useful for comparing companies within the same industry.

5 Helps in Cost Control

- Prevents unnecessary investment in fixed assets.
- Encourages optimal use of existing assets.

6 Aids in Growth Planning

- Indicates whether the company can increase sales without major new investments.

The Fixed Asset Turnover Ratio is a valuable tool for measuring asset productivity, improving operational efficiency, and supporting long-term investment planning.

Limitations

Although the **Fixed Asset Turnover Ratio** is useful for measuring asset utilization efficiency, it has certain limitations that should be considered during analysis.

△ Main Limitations

❶ Affected by Depreciation Method

- Different depreciation methods change net fixed asset value.
- Reduces comparability between companies.

❷ Ignores Age and Condition of Assets

- Old assets with low book value may increase ratio artificially.
- Does not reflect actual efficiency.

❸ Industry Differences

- Capital-intensive industries naturally have lower turnover ratios.
- Not suitable for comparing different sectors.

❹ Based on Historical Cost

- Uses book value of assets, not market value.
- Inflation and revaluation may distort results.

❺ Does Not Reflect Profitability

- High turnover does not guarantee high profit.
- Does not consider cost structure.

❻ Can Be Misleading if Used Alone

- Should be analyzed along with profitability and other activity ratios.

The Fixed Asset Turnover Ratio is useful for evaluating asset utilization, but it has limitations such as reliance on book values and depreciation methods. It should be interpreted carefully along with other financial indicators.

The Fixed Asset Turnover Ratio is an important activity ratio that measures how effectively fixed assets are used to generate sales and improve operational efficiency.

5 The **Working Capital Turnover Ratio** is an activity ratio that measures how efficiently a company uses its **working capital** to generate sales.

It shows the relationship between **Net Sales and Working Capital**.

- ☐ Higher ratio → Efficient use of working capital
- ☐ Lower ratio → Inefficient use or excess working capital

Management Accounting

□ Formula

Working Capital Turnover Ratio = Net Sales ÷ Working Capital

Where:

□ **Working Capital = Current Assets – Current Liabilities**

□ Objectives

The **Working Capital Turnover Ratio** measures how efficiently a company uses its working capital to generate sales.

Its main objective is to evaluate short-term financial efficiency and operational performance.

□ Main Objectives

❶ To Measure Efficiency of Working Capital

- Determines how effectively short-term funds are utilized.

❷ To Assess Operational Performance

- Shows relationship between sales and working capital.

❸ To Improve Liquidity Management

- Helps maintain proper balance between current assets and liabilities.

❹ To Avoid Excess or Insufficient Working Capital

- Prevents over-investment in current assets.
- Avoids liquidity shortage.

❺ To Support Managerial Decisions

- Assists in planning inventory, receivables, and payables.

❻ To Compare Performance

- Enables comparison across years and with competitors.

The primary objective of the Working Capital Turnover Ratio is to evaluate how efficiently a company utilizes its working capital to generate sales and maintain smooth business operations.

□ Illustration 1 – Basic Calculation

□ Given:

Net	Sales	=	₹15,00,000
Current	Assets	=	₹5,00,000
Current Liabilities = ₹2,00,000			

Management Accounting

□ Step 1: Calculate Working Capital

$$\begin{array}{rclclcl} \text{Working} & & \text{Capital} & = & 5,00,000 & - & 2,00,000 \\ = ₹3,00,000 \end{array}$$

□ Step 2: Calculate Ratio

$$\begin{array}{rclclcl} \text{Working} & & \text{Capital} & \text{Turnover} & \text{Ratio} & = & 15,00,000 & \div & 3,00,000 \\ = 5 \text{ times} \end{array}$$

□ Interpretation: Each ₹1 of working capital generates ₹5 in sales.

□ Illustration 2 – Direct Data

$$\begin{array}{rclcl} \text{Net} & & \text{Sales} & = & ₹10,00,000 \end{array}$$

$$\text{Working Capital} = ₹2,50,000$$

$$\begin{array}{rclclcl} \text{Working} & & \text{Capital} & \text{Turnover} & \text{Ratio} & = & 10,00,000 & \div & 2,50,000 \\ = 4 \text{ times} \end{array}$$

□ Advantages

The **Working Capital Turnover Ratio** measures how efficiently a company uses its working capital (Current Assets – Current Liabilities) to generate sales.

□ Main Advantages

❶ Measures Efficiency of Short-Term Funds

- Shows how effectively working capital is utilized to generate revenue.
- Higher ratio indicates better utilization.

❷ Improves Working Capital Management

- Helps avoid excess or shortage of working capital.
- Supports proper management of current assets and liabilities.

❸ Enhances Operational Efficiency

- Indicates how efficiently day-to-day operations are managed.

❹ Assists in Performance Evaluation

- Useful for comparing performance over different years.
- Helps compare companies within the same industry.

❺ Supports Managerial Decision-Making

- Assists in planning inventory, receivables, and payables management.

❻ Helps Maintain Liquidity Balance

- Ensures that working capital is neither idle nor insufficient.

The Working Capital Turnover Ratio is a valuable tool for evaluating short-term financial efficiency and improving overall operational performance.

⚠ Limitations

Although the **Working Capital Turnover Ratio** is useful for measuring efficiency of short-term funds, it has certain limitations that must be considered during analysis.

⚠ Main Limitations

❶ Affected by Seasonal Variations

- Seasonal sales and purchases may distort working capital levels.
- Year-end figures may not represent the average position.

❷ Based on Historical Data

- Uses past financial statements.
- May not reflect current or future performance.

❸ Does Not Indicate Profitability

- High turnover does not necessarily mean high profit.
- Ignores cost structure and margins.

❹ Influenced by Temporary Changes

- Temporary increase or decrease in current assets/liabilities affects ratio.

❺ Industry Differences

- Ideal ratio varies across industries.
- Not suitable for comparing different sectors.

❻ Can Be Misleading if Used Alone

- Should be analyzed along with liquidity and profitability ratios.

The Working Capital Turnover Ratio is helpful in assessing short-term efficiency, but it has limitations such as seasonal impact and reliance on historical data. Proper interpretation with other financial ratios is necessary for accurate analysis.

The Working Capital Turnover Ratio is an important activity ratio that evaluates how effectively a company uses its short-term funds to generate sales and maintain operational efficiency.

Activity (Turnover) Ratios are important tools for analyzing how efficiently a business uses its assets and manages its working capital.

5. Solvency Ratios

Solvency Ratios measure the ability of a company to meet its **long-term financial obligations**.

They evaluate the long-term financial stability and capital structure of a business.

- Liquidity ratios → Short-term strength
- Solvency ratios → Long-term strength

□ Objectives

Solvency Ratios are used to evaluate a company's ability to meet its **long-term financial obligations**.

Their main objective is to assess the long-term financial strength and stability of a business.

□ Main Objectives

❶ To Assess Long-Term Financial Stability

- Determine whether the company can meet long-term debts.
- Evaluate overall financial soundness.

❷ To Analyze Capital Structure

- Examine the proportion of debt and equity.
- Ensure balanced financing.

❸ To Measure Financial Risk

- Identify risk arising from excessive borrowing.
- Assess dependence on external funds.

❹ To Evaluate Debt-Servicing Capacity

- Measure ability to pay interest and principal regularly.

❺ To Provide Confidence to Long-Term Creditors

- Assure lenders about repayment ability.

❻ To Support Financial Planning

- Help management maintain an optimal capital structure.
- Assist in long-term investment and borrowing decisions.

The primary objective of solvency ratios is to evaluate a company's long-term financial stability, capital structure, and ability to meet long-term obligations.

Management Accounting

Solvency Ratios measure a company's ability to meet its long-term financial obligations and assess its capital structure. They are important indicators of long-term financial stability.

□ Main Advantages

❏ 1 Measures Long-Term Financial Stability

- Shows whether the company can meet long-term debts.
- Indicates overall financial soundness.

❏ 2 Evaluates Capital Structure

- Helps analyze the balance between debt and equity.
- Ensures proper financial structure.

❏ 3 Assesses Financial Risk

- Identifies risk arising from excessive borrowing.
- Helps avoid over-leveraging.

❏ 4 Useful for Creditors and Lenders

- Assists banks in evaluating creditworthiness.
- Provides confidence regarding repayment capacity.

❏ 5 Supports Investment Decisions

- Investors assess solvency before investing.
- Indicates long-term sustainability.

❏ 6 Aids in Financial Planning

- Helps management decide the ideal level of debt.
- Assists in long-term funding decisions.

Solvency ratios are valuable tools for assessing long-term financial strength, capital structure balance, and financial risk. They support informed decisions by management, investors, and lenders.

Although **Solvency Ratios** are useful for measuring long-term financial stability, they have certain limitations that must be considered during analysis.

⚠ Main Limitations

❏ 1 Based on Historical Data

- Calculated from past financial statements.
- May not reflect future financial conditions.

❏ 2 Based on Book Values

- Use book value of assets and liabilities.
- Ignore current market values.

❏ 3 Affected by Accounting Policies

- Changes in depreciation, asset valuation, or revenue recognition affect ratios.
- Reduces comparability between firms.

❏ 4 Ignore Cash Flow Position

- Focus on accounting figures, not actual cash flows.
- Company may appear solvent but face liquidity problems.

❏ 5 Industry Differences

- Ideal solvency ratios vary across industries.
- Not suitable for comparing different sectors.

❏ 6 Do Not Consider Economic Conditions

- External factors like recession or inflation are ignored.

Solvency ratios are important indicators of long-term financial strength, but they rely on historical accounting data and may ignore market and economic factors. They should be interpreted along with other financial measures for accurate analysis.

□ Main Solvency Ratios

❏ 1 Debt–Equity Ratio

The **Debt–Equity Ratio** is a solvency ratio that measures the relationship between **long-term debt** and **shareholders' funds**.

It shows how much debt is used in comparison to owners' capital to finance the business.

Management Accounting

- ☐ Higher ratio → Higher financial risk
- ☐ Lower ratio → Lower financial risk

☐ Formula

Debt–Equity Ratio = Long-term Debt ÷ Shareholders' Funds

Where:

- ☐ **Long-term Debt** = Debentures + Long-term Loans
- ☐ **Shareholders' Funds** = Share Capital + Reserves & Surplus

☐ Ideal Ratio

Generally **2 : 1** (may vary by industry)

☐ Objectives

The **Debt–Equity Ratio** measures the proportion of long-term debt and shareholders' funds used to finance a business.

Its main objective is to evaluate financial leverage and long-term solvency.

☐ Main Objectives

☐ 1 To Measure Financial Leverage

- Determines how much debt is used compared to equity.
- Indicates the level of borrowing.

☐ 2 To Assess Financial Risk

- Higher ratio shows higher financial risk.
- Helps identify risk due to excessive debt.

☐ 3 To Analyze Capital Structure

- Examines the balance between debt and equity financing.

☐ 4 To Evaluate Long-Term Solvency

- Assesses the company's ability to meet long-term obligations.

☐ 5 To Provide Confidence to Creditors

- Helps lenders evaluate safety of their funds.

6 To Support Financial Planning

- Assists management in deciding the appropriate level of borrowing.

The primary objective of the Debt–Equity Ratio is to evaluate the balance between debt and equity financing, measure financial risk, and ensure long-term financial stability.

□ Illustration

□ Given:

Debentures	=	₹4,00,000
Long-term Loan	=	₹2,00,000
Share Capital	=	₹5,00,000
Reserves & Surplus = ₹1,00,000		

□ Step 1: Calculate Totals

Long-term Debt	=	4,00,000	+	2,00,000
= ₹6,00,000				
Shareholders' Funds	=	5,00,000	+	1,00,000
= ₹6,00,000				

□ Step 2: Calculate Ratio

Debt–Equity Ratio	=	6,00,000	÷	6,00,000
= 1 : 1				

□ Interpretation: Balanced capital structure with equal debt and equity.

□ Advantages

The **Debt–Equity Ratio** measures the relationship between long-term debt and shareholders' funds. It helps evaluate financial leverage and long-term financial stability.

□ Main Advantages

1 Measures Financial Risk

- Indicates the level of borrowing in the capital structure.
- Higher ratio signals higher financial risk.

2 Evaluates Capital Structure

- Helps determine whether financing is balanced between debt and equity.

3 Useful for Creditors

- Assists lenders in assessing long-term repayment capacity.
- Provides assurance regarding safety of funds.

4 Assists in Investment Decisions

- Investors evaluate financial stability before investing.

5 Helps in Financial Planning

- Guides management in deciding the optimal level of debt.

6 Facilitates Inter-Firm Comparison

- Useful for comparing companies within the same industry.

The Debt–Equity Ratio is a key solvency ratio that measures financial leverage, evaluates capital structure, and supports informed financial and investment decisions.

△ Limitations

Although the **Debt–Equity Ratio** is useful for measuring financial leverage and capital structure, it has certain limitations that must be considered during analysis.

△ Main Limitations

1 Based on Book Values

- Calculated using balance sheet figures (historical cost).
- Does not reflect current market value of equity or assets.

2 Ignores Short-Term Liabilities

- Considers only long-term debt.
- May not show complete financial risk.

3 Affected by Accounting Policies

- Depreciation and asset valuation methods affect shareholders' funds.
- Reduces comparability between companies.

4 Industry Differences

- Ideal ratio varies across industries.
- Not suitable for comparing different sectors.

5 Does Not Reflect Profitability

- A low ratio does not guarantee high profitability.
- Does not measure earning capacity.

6 Can Be Misleading if Used Alone

- Should be analyzed along with solvency, liquidity, and profitability ratios.

The Debt–Equity Ratio is important for evaluating financial leverage, but it has limitations such as reliance on book values and exclusion of short-term liabilities. It should be interpreted carefully along with other financial indicators.

The Debt–Equity Ratio is an important solvency ratio that helps evaluate financial leverage and long-term financial stability of a business.

2 Proprietary Ratio

The **Proprietary Ratio** is a solvency ratio that measures the proportion of **total assets financed by shareholders' funds**.

It indicates the degree of financial stability and the extent of owners' contribution in the business.

- ☐ Higher ratio → Greater financial stability
- ☐ Lower ratio → Higher dependence on external debt

☐ Formula

Proprietary Ratio = Shareholders' Funds ÷ Total Assets

Where:

- ☐ **Shareholders' Funds** = Share Capital + Reserves & Surplus
- ☐ **Total Assets** = Fixed Assets + Current Assets

☐ Ideal Ratio

Generally **0.5 or 50% and above** is considered satisfactory.

☐ Objectives

The **Proprietary Ratio** measures the proportion of total assets financed by shareholders' funds.

Management Accounting

Its main objective is to evaluate long-term financial stability and the extent of owners' contribution in the business.

□ Main Objectives

❶ To Measure Financial Stability

- Determines how much of the company's assets are financed by owners.
- Higher ratio indicates stronger financial position.

❷ To Assess Capital Structure

- Evaluates the balance between equity and external liabilities.

❸ To Evaluate Financial Risk

- Lower ratio shows higher dependence on debt.
- Helps assess long-term financial risk.

❹ To Provide Confidence to Creditors

- Assures lenders about safety of their funds.
- Indicates long-term solvency.

❺ To Support Financial Planning

- Helps management maintain optimal debt-equity balance.

❻ To Assist Investment Decisions

- Investors assess stability before investing in the company.

The primary objective of the Proprietary Ratio is to measure the proportion of total assets financed by shareholders' funds and to assess long-term financial stability and risk.

□ Illustration

□ Given:

Share	Capital	=	₹5,00,000
Reserves Fixed	& Surplus	=	₹3,00,000
Current Assets =	Assets	=	₹6,00,000
₹4,00,000			

Management Accounting

□ Step 1: Calculate Shareholders' Funds

$$\begin{array}{rclclcl} \text{Shareholders' Funds} & = & 5,00,000 & + & 3,00,000 \\ & = & \text{₹}8,00,000 \end{array}$$

□ Step 2: Calculate Total Assets

$$\begin{array}{rclclcl} \text{Total Assets} & = & 6,00,000 & + & 4,00,000 \\ & = & \text{₹}10,00,000 \end{array}$$

□ Step 3: Calculate Ratio

$$\begin{array}{rclclcl} \text{Proprietary Ratio} & = & 8,00,000 & \div & 10,00,000 \\ & = & \mathbf{0.8 (80\%)} \end{array}$$

□ Interpretation: 80% of assets are financed by owners, indicating strong financial position.

□ Advantages

The **Proprietary Ratio** measures the proportion of total assets financed by shareholders' funds. It is an important solvency ratio for evaluating long-term financial stability.

□ Main Advantages

1 Indicates Financial Stability

- Higher ratio shows strong financial position.
- Reflects long-term solvency.

2 Measures Owners' Contribution

- Shows the extent of equity financing.
- Indicates independence from external borrowing.

3 Assesses Financial Risk

- Lower ratio means higher dependence on debt.
- Helps evaluate long-term risk.

4 Useful for Creditors

- Provides assurance to lenders about safety of funds.

5 Helps in Capital Structure Planning

- Assists management in maintaining balanced financing.

6 Facilitates Inter-Firm Comparison

- Useful for comparing companies within the same industry.

The Proprietary Ratio is a valuable tool for assessing financial stability, owners' contribution, and long-term risk. It supports informed financial and investment decisions.

⚠ Limitations

Although the **Proprietary Ratio** is useful for measuring long-term financial stability, it has certain limitations that should be considered while interpreting it.

⚠ Main Limitations

1 Based on Book Values

- Uses historical cost of assets and equity.
- Does not reflect current market value.

2 Ignores Profitability

- High proprietary ratio does not guarantee high profits.
- Does not measure earning efficiency.

3 Industry Differences

- Ideal ratio varies across industries.
- Not suitable for comparing different sectors.

4 Does Not Consider Liquidity

- Focuses only on long-term solvency.
- Does not measure short-term financial position.

5 Affected by Accounting Policies

- Changes in asset valuation or depreciation affect the ratio.
- Reduces comparability between companies.

6 Incomplete Risk Assessment

- Does not consider economic conditions or future uncertainties.

The Proprietary Ratio is helpful in evaluating financial stability, but it has limitations such as reliance on book values and ignoring profitability. It should be analyzed along with other financial ratios for accurate assessment.

The Proprietary Ratio measures the proportion of total assets financed by shareholders' funds and helps assess long-term financial stability.

3 Interest Coverage Ratio

The **Interest Coverage Ratio (ICR)** is a solvency ratio that measures how many times a company's **operating profit (EBIT)** can cover its **interest expense**.

It indicates the company's ability to meet fixed interest obligations.

- ☐ Higher ratio → Strong ability to pay interest
- ☐ Lower ratio → Higher financial risk

☐ Formula

Interest Coverage Ratio = EBIT ÷ Interest

Where:

- ☐ **EBIT** (Earnings Before Interest and Tax) = Operating Profit
- ☐ **Interest** = Interest on long-term debt

☐ Ideal Ratio

Generally **2 times or more** is considered satisfactory.

☐ Objectives

The **Interest Coverage Ratio (ICR)** measures how many times a company's operating profit (EBIT) can cover its interest expense.

Its main objective is to evaluate the company's ability to meet fixed interest obligations and assess long-term financial safety.

☐ Main Objectives

1 To Measure Interest-Paying Capacity

- Determines whether the company can pay interest regularly.
- Higher ratio indicates stronger repayment ability.

2 To Assess Financial Risk

- Low ratio indicates higher financial risk.
- Helps identify risk due to excessive borrowing.

3 To Evaluate Long-Term Solvency

- Measures ability to sustain debt over time.

4 To Provide Assurance to Lenders

- Helps banks and financial institutions assess creditworthiness.

5 To Support Borrowing Decisions

- Assists management in deciding whether additional debt can be safely taken.

6 To Monitor Debt Management Efficiency

- Reflects how effectively the company manages its debt obligations.

The primary objective of the Interest Coverage Ratio is to assess a company's ability to meet interest obligations and ensure long-term financial stability and debt-servicing capacity.

□ Illustration

□ Given:

Net Profit = ₹2,00,000

Interest = ₹50,000

Tax = ₹50,000

□ Step 1: Calculate EBIT

EBIT = Net Profit + Interest + Tax

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

= ₹3,00,000

□ Step 2: Calculate Ratio

Interest Coverage Ratio = 3,00,000 ÷ 50,000

= 6 times

□ Interpretation: The company can pay its interest 6 times from operating profit.

Management Accounting

□ Advantages

The **Interest Coverage Ratio (ICR)** measures how many times a company's operating profit (EBIT) can cover its interest expense. It is an important indicator of debt-servicing capacity.

□ Main Advantages

❏ 1 Measures Interest-Paying Capacity

- Shows ability to meet fixed interest obligations.
- Higher ratio indicates strong financial position.

❏ 2 Assesses Financial Risk

- Helps identify risk due to excessive borrowing.
- Low ratio warns of potential default risk.

❏ 3 Useful for Lenders and Creditors

- Assists banks in evaluating creditworthiness.
- Provides assurance about timely interest payment.

❏ 4 Evaluates Debt Management Efficiency

- Reflects how effectively the company manages borrowed funds.

❏ 5 Supports Borrowing Decisions

- Helps management decide whether additional loans can be safely taken.

❏ 6 Facilitates Inter-Firm Comparison

- Useful for comparing companies within the same industry.

The Interest Coverage Ratio is a valuable tool for assessing a company's ability to meet interest obligations and maintain long-term financial stability.

△ Limitations

Although the **Interest Coverage Ratio (ICR)** is useful for measuring interest-paying capacity, it has certain limitations that should be considered while interpreting it.

△ Main Limitations

❏ 1 Based on Accounting Profit

- Uses EBIT (accounting profit), not actual cash flow.
- Company may show high EBIT but have poor cash position.

❏ 2 Ignores Principal Repayment

- Measures only ability to pay interest.
- Does not consider repayment of loan principal.

❏ 3 Affected by Accounting Policies

Management Accounting

- Changes in depreciation or expense recognition affect EBIT.
- Reduces comparability between firms.

4 Short-Term Focus

- Based on current year's profit.
- Does not guarantee long-term sustainability.

5 Industry Differences

- Ideal ratio varies across industries.
- Not suitable for comparing companies in different sectors.

6 Can Be Misleading if Used Alone

- Should be analyzed along with other solvency and liquidity ratios.

The Interest Coverage Ratio is helpful for evaluating debt-servicing capacity, but it has limitations such as reliance on accounting profit and ignoring principal repayment. It should be interpreted along with other financial measures for accurate analysis.

The Interest Coverage Ratio is an important solvency ratio that evaluates a company's ability to meet interest obligations and manage financial risk effectively.

4 Total Assets to Debt Ratio

The **Total Assets to Debt Ratio** is a solvency ratio that measures the relationship between **total assets** and **total debt** of a company.

It indicates how many times the company's assets can cover its total debt.

- ☐ Higher ratio → Greater financial stability
- ☐ Lower ratio → Higher financial risk

☐ Formula

Total Assets to Debt Ratio = Total Assets ÷ Total Debt

Where:

- ☐ **Total Assets** = Fixed Assets + Current Assets
- ☐ **Total Debt** = Long-term Debt + Short-term Debt

☐ Ideal Ratio

Generally, a ratio **greater than 1** is considered satisfactory. Higher ratio indicates better solvency.

Management Accounting

□ Objectives

The **Total Assets to Debt Ratio** measures how many times a company's total assets can cover its total debt.

Its main objective is to evaluate long-term financial stability and the safety of creditors' funds.

□ Main Objectives

❶ To Measure Asset Coverage of Debt

- Determines whether total assets are sufficient to repay total debt.

❷ To Assess Long-Term Solvency

- Evaluates the company's ability to meet long-term financial obligations.

❸ To Evaluate Financial Risk

- Lower ratio indicates higher risk of insolvency.
- Higher ratio shows stronger financial position.

❹ To Provide Assurance to Creditors

- Helps lenders assess safety of their loans.

❺ To Analyze Capital Structure

- Indicates the relationship between total investment and borrowed funds.

❻ To Support Financial Planning

- Assists management in maintaining balanced borrowing levels.

The primary objective of the Total Assets to Debt Ratio is to measure how well a company's assets can cover its total debt and to assess overall long-term financial stability.

□ Illustration

□ Given:

Fixed	Assets	=	₹8,00,000
Current	Assets	=	₹4,00,000
Long-term	Debt	=	₹5,00,000
Short-term Debt = ₹2,00,000			

□ Step 1: Calculate Totals

Total	Assets	=	8,00,000	+	4,00,000
= ₹12,00,000					
Total	Debt	=	5,00,000	+	2,00,000
= ₹7,00,000					

□ Step 2: Calculate Ratio

Management Accounting

$$\frac{\text{Total Assets}}{\text{Debt}} = \frac{12,00,000}{7,00,000} = 1.71 : 1$$

□ Interpretation: Assets are 1.71 times total debt, indicating satisfactory solvency.

□ Advantages

The **Total Assets to Debt Ratio** measures how many times a company's total assets can cover its total debt. It is an important indicator of long-term financial stability.

□ Main Advantages

1 Measures Overall Solvency

- Indicates the company's ability to repay total debt using its assets.

2 Provides Safety to Creditors

- Higher ratio assures lenders about protection of their funds.

3 Assesses Financial Risk

- Helps identify risk arising from excessive borrowing.

4 Evaluates Capital Structure

- Shows relationship between total investment and borrowed funds.

5 Useful for Investment Decisions

- Investors assess stability before investing.

6 Facilitates Inter-Firm Comparison

- Useful for comparing companies within the same industry.

The Total Assets to Debt Ratio is a valuable solvency ratio that measures asset coverage of debt and helps assess long-term financial strength and risk.

Limitations

The **Total Assets to Debt Ratio** measures how many times a company's total assets can cover its total debt. It is an important indicator of long-term financial stability.

□ Main Advantages

1 Measures Overall Solvency

- Indicates the company's ability to repay total debt using its assets.

2 Provides Safety to Creditors

- Higher ratio assures lenders about protection of their funds.

3 Assesses Financial Risk

Management Accounting

- Helps identify risk arising from excessive borrowing.

4 Evaluates Capital Structure

- Shows relationship between total investment and borrowed funds.

5 Useful for Investment Decisions

- Investors assess stability before investing.

6 Facilitates Inter-Firm Comparison

- Useful for comparing companies within the same industry.

The Total Assets to Debt Ratio is a valuable solvency ratio that measures asset coverage of debt and helps assess long-term financial strength and risk.

The Total Assets to Debt Ratio is an important solvency ratio that evaluates how effectively a company's assets cover its total debt and indicates long-term financial stability.

Solvency ratios are essential tools for evaluating long-term financial stability and capital structure. They help management, investors, and creditors assess financial risk and repayment capacity.

6. Leverage Ratios

Leverage Ratios measure the extent to which a company uses **debt (borrowed funds)** in its capital structure.

They indicate the company's **financial risk** and its ability to meet fixed financial obligations like interest and principal payments.

- ☐ High leverage → High risk & high return potential
- ☐ Low leverage → Low risk & more stability

☐ Objectives

Leverage Ratios measure the extent to which a company uses borrowed funds in its capital structure.

Their main objective is to assess financial risk and long-term solvency.

☐ Main Objectives

1 To Measure Financial Leverage

- Determines the proportion of debt used in financing the business.

2 To Assess Financial Risk

- Higher leverage indicates higher financial risk.
- Helps identify risk due to excessive borrowing.

3 To Evaluate Capital Structure

- Examines the balance between debt and equity financing.
-

4 To Measure Debt-Servicing Capacity

- Assesses ability to pay interest and principal regularly.

5 To Provide Assurance to Creditors

- Helps lenders evaluate safety of their funds.

6 To Support Financial Planning

- Assists management in deciding the optimal level of borrowing.

The primary objective of leverage ratios is to evaluate the level of debt financing, measure financial risk, and ensure long-term financial stability of the business.

Leverage Ratios measure the extent to which a company uses debt in its capital structure. They help assess financial risk and long-term financial strength.

□ Main Advantages

1 Measures Financial Risk

- Indicates the level of debt in the business.
- Helps identify risk from excessive borrowing.

2 Evaluates Capital Structure

- Shows balance between debt and equity financing.
- Helps maintain optimal financial structure.

3 Assesses Debt-Servicing Capacity

- Measures ability to pay interest and principal.

4 Useful for Creditors and Lenders

- Helps evaluate creditworthiness.
- Provides assurance regarding repayment ability.

5 Supports Investment Decisions

- Investors assess financial stability before investing.

6 Assists in Financial Planning

- Helps management decide the appropriate level of borrowing.

Leverage ratios are valuable tools for evaluating financial risk, capital structure balance, and long-term solvency. They support informed decisions by management, investors, and creditors. Although **Leverage Ratios** are useful for measuring financial risk and capital structure, they have certain limitations that should be considered during analysis.

▲ Main Limitations

❶ Based on Historical Data

- Calculated using past financial statements.
- May not reflect future financial conditions.

❷ Based on Book Values

- Use historical cost of assets and equity.
- Do not reflect current market values.

❸ Affected by Accounting Policies

- Depreciation and asset valuation methods influence ratios.
- Reduces comparability between firms.

❹ Ignore Cash Flow Position

- Focus on accounting figures, not actual cash flows.
- Company may appear strong but face liquidity issues.

❺ Industry Differences

- Ideal leverage ratios vary across industries.
- Not suitable for comparing different sectors.

❻ Do Not Consider Economic Conditions

- External factors like inflation or recession are ignored.

❼ Can Be Misleading if Used Alone

- Should be analyzed along with liquidity and profitability ratios.

Leverage ratios are important tools for assessing financial risk and capital structure, but they rely on accounting data and may ignore market and economic factors. Proper interpretation with other financial indicators is essential for accurate evaluation.

□ Main Types of Leverage Ratios

❶ Debt–Equity Ratio

The **Debt–Equity Ratio** is a leverage (solvency) ratio that measures the relationship between **long-term debt** and **shareholders' funds**.

It shows how much debt is used in comparison to owners' capital to finance the business.

- Higher ratio → Higher financial risk
- Lower ratio → Lower financial risk

□ Formula

Debt–Equity Ratio = Long-term Debt ÷ Shareholders' Funds

Management Accounting

Where:

☐ **Long-term Debt** = Debentures + Long-term Loans

☐ **Shareholders' Funds** = Share Capital + Reserves & Surplus

☐ **Ideal Ratio**

Generally **2 : 1** (may vary depending on industry).

☐ **Objectives**

The **Debt–Equity Ratio** measures the relationship between long-term debt and shareholders' funds.

Its main objective is to evaluate financial leverage, capital structure, and long-term financial stability.

☐ **Main Objectives**

1 To Measure Financial Leverage

- Determines the proportion of debt used in financing the business.
- Indicates dependence on borrowed funds.

2 To Assess Financial Risk

- Higher ratio shows higher financial risk.
- Helps identify risk due to excessive borrowing.

3 To Analyze Capital Structure

- Evaluates balance between debt and equity financing.
- Ensures optimal mix of funds.

4 To Evaluate Long-Term Solvency

- Assesses the company's ability to meet long-term obligations.

5 To Provide Confidence to Creditors

- Helps lenders assess safety of their funds.

6 To Support Financial Planning

- Assists management in deciding appropriate level of borrowing.

The primary objective of the Debt–Equity Ratio is to measure financial leverage, assess risk, and maintain a balanced capital structure for long-term stability.

☐ **Illustration**

☐ **Given:**

Debentures	=	₹3,00,000
Long-term Loan	=	₹2,00,000

Management Accounting

Share Capital	=	₹4,00,000
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Reserves & Surplus = ₹1,00,000

□ Step 1: Calculate Totals

Long-term Debt	=	3,00,000	+	2,00,000
= ₹5,00,000				

Shareholders' Funds	=	4,00,000	+	1,00,000
= ₹5,00,000				

□ Step 2: Calculate Ratio

Debt–Equity Ratio	=	5,00,000	÷	5,00,000
= 1 : 1				

□ Interpretation: Balanced capital structure with equal debt and equity.

Debt–Equity Ratio = Long-term Debt ÷ Shareholders' Funds

Where:

□ Shareholders' Funds = Share Capital + Reserves & Surplus

□ Illustration 1 – Basic Problem

□ Given:

Debentures	=	₹4,00,000
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Long-term Loan	=	₹2,00,000
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Share Capital	=	₹5,00,000
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Reserves & Surplus = ₹1,00,000

□ Step 1: Calculate Long-term Debt

Long-term Debt	=	4,00,000	+	2,00,000
= ₹6,00,000				

□ Step 2: Calculate Shareholders' Funds

Shareholders' Funds	=	5,00,000	+	1,00,000
= ₹6,00,000				

□ Step 3: Calculate Ratio

Debt–Equity Ratio = 6,00,000 ÷ 6,00,000 = 1 : 1

□ Interpretation: Balanced capital structure.

□ Illustration 2 – Higher Debt Situation

□ Given:

Management Accounting

Long-term	Debt	=	₹8,00,000
Share	Capital	=	₹4,00,000

Reserves & Surplus = ₹1,00,000

☐ Step 1: Shareholders' Funds

=	4,00,000	+	1,00,000
= ₹5,00,000			

☐ Step 2: Ratio

Debt–Equity	Ratio	=	8,00,000	÷	5,00,000
= 1.6 : 1					

☐ Interpretation: Higher financial risk due to more debt.

☐ Illustration 3 – Low Debt Situation

☐ Given:

Long-term	Debt	=	₹3,00,000
Shareholders' Funds = ₹9,00,000			

☐ Calculation

Debt–Equity	Ratio	=	3,00,000	÷	9,00,000
= 0.33 : 1					

☐ Interpretation: Very low financial risk and strong equity base.

☐ Illustration 4 – From Balance Sheet Data

☐ Extract from Balance Sheet

Particulars **Amount (₹)**

Debt ₹5,00,000 |

Long-term Loan ₹3,00,000 |

Share Capital ₹6,00,000 |

Reserves ₹2,00,000 |

☐ Calculation

Long-term	Debt	=	5,00,000	+	3,00,000
= ₹8,00,000					
Shareholders'	Funds	=	6,00,000	+	2,00,000
= ₹8,00,000					

Debt–Equity	Ratio	=	8,00,000	÷	8,00,000
= 1 : 1					

These numerical illustrations show how the Debt–Equity Ratio helps evaluate financial leverage and risk under different capital structures.

□ Advantages

The **Debt–Equity Ratio** measures the relationship between long-term debt and shareholders' funds. It is a key indicator of financial leverage and long-term solvency.

□ Main Advantages

❶ Measures Financial Risk

- Indicates the level of debt used in financing the business.
- Higher ratio shows higher financial risk.

❷ Evaluates Capital Structure

- Helps analyze the balance between debt and equity financing.
- Ensures optimal mix of funds.

❸ Useful for Creditors

- Assists lenders in assessing repayment capacity.
- Provides assurance regarding safety of funds.

❹ Assists in Investment Decisions

- Investors use it to evaluate financial stability.
- Helps in assessing risk-return relationship.

❺ Supports Financial Planning

- Guides management in deciding the appropriate level of borrowing.

❻ Facilitates Inter-Firm Comparison

- Useful for comparing companies within the same industry.

The Debt–Equity Ratio is a valuable tool for measuring financial leverage, assessing risk, and maintaining a balanced capital structure for long-term financial stability.

△ Limitations

Although the **Debt–Equity Ratio** is an important measure of financial leverage and capital structure, it has certain limitations that must be considered during analysis.

△ Main Limitations

❶ Based on Book Values

Management Accounting

- Calculated using historical balance sheet figures.
- Does not reflect current market value of equity or assets.

2 Ignores Short-Term Liabilities

- Generally considers only long-term debt.
- May not show total financial risk.

3 Affected by Accounting Policies

- Depreciation and asset valuation methods affect shareholders' funds.
- Reduces comparability between firms.

4 Industry Differences

- Ideal ratio varies across industries.
- Not suitable for comparing companies in different sectors.

5 Does Not Measure Profitability

- Low ratio does not guarantee high profits.
- Does not show earning efficiency.

6 Can Be Misleading if Used Alone

- Should be analyzed with solvency, liquidity, and profitability ratios.

The Debt–Equity Ratio is useful for evaluating financial leverage, but it has limitations such as reliance on book values and exclusion of short-term liabilities. It should be interpreted carefully along with other financial indicators.

The Debt–Equity Ratio is an important leverage ratio that helps evaluate financial risk, capital structure, and long-term financial stability.

2 Proprietary Ratio

The **Proprietary Ratio** is a solvency ratio that measures the proportion of **total assets financed by shareholders' funds**.

It indicates the degree of financial stability and the owners' stake in the business.

- ☐ Higher ratio → Greater financial stability
- ☐ Lower ratio → Higher dependence on debt

☐ Formula

Proprietary Ratio = Shareholders' Funds ÷ Total Assets

Where:

- ☐ **Shareholders' Funds** = Share Capital + Reserves & Surplus
- ☐ **Total Assets** = Fixed Assets + Current Assets

Management Accounting

□ Ideal Ratio

Generally **0.5 (50%) or above** is considered satisfactory.

□ Objectives

The **Proprietary Ratio** measures the proportion of total assets financed by shareholders' funds.

Its main objective is to evaluate long-term financial stability and the extent of owners' contribution in the business.

□ Main Objectives

❶ To Measure Financial Stability

- Determines how much of total assets are financed by owners' funds.
- Higher ratio indicates stronger financial position.

❷ To Assess Capital Structure

- Evaluates the balance between equity and borrowed funds.

❸ To Evaluate Financial Risk

- Lower ratio indicates higher dependence on debt.
- Helps assess long-term financial risk.

❹ To Provide Confidence to Creditors

- Assures lenders about safety of their funds.
- Indicates long-term solvency.

❺ To Support Financial Planning

- Helps management maintain an optimal debt-equity balance.

❻ To Assist Investment Decisions

- Investors assess financial stability before investing.

The primary objective of the Proprietary Ratio is to measure the proportion of assets financed by shareholders and assess long-term financial strength and risk.

□ Illustration

□ Given:

Share	Capital	=		₹6,00,000
Reserves	&	Surplus	=	₹2,00,000
Fixed	Assets	=		₹7,00,000

Current Assets = ₹3,00,000

□ Step 1: Calculate Shareholders' Funds

Management Accounting

$$\begin{aligned} &= \quad \quad \quad 6,00,000 \quad \quad \quad + \quad \quad \quad 2,00,000 \\ &= ₹8,00,000 \end{aligned}$$

□ Step 2: Calculate Total Assets

$$\begin{aligned} &= \quad \quad \quad 7,00,000 \quad \quad \quad + \quad \quad \quad 3,00,000 \\ &= ₹10,00,000 \end{aligned}$$

□ Step 3: Calculate Ratio

$$\begin{aligned} \text{Proprietary} \quad \quad \quad \text{Ratio} \quad \quad \quad &= \quad \quad \quad 8,00,000 \quad \quad \quad \div \quad \quad \quad 10,00,000 \\ &= \mathbf{0.8 (80\%)} \end{aligned}$$

□ Interpretation: 80% of assets are financed by owners, indicating strong financial position.

□ Advantages

The **Proprietary Ratio** measures the proportion of total assets financed by shareholders' funds. It is an important indicator of long-term financial stability.

□ Main Advantages

❶ Indicates Financial Stability

- Higher ratio shows strong financial position.
- Reflects long-term solvency of the company.

❷ Measures Owners' Contribution

- Shows the extent of equity financing in total assets.
- Indicates independence from borrowed funds.

❸ Assesses Financial Risk

- Lower ratio means higher dependence on debt.
- Helps evaluate long-term risk.

❹ Useful for Creditors

- Provides assurance to lenders about safety of their funds.

❺ Helps in Capital Structure Planning

- Assists management in maintaining balanced financing.

❻ Facilitates Inter-Firm Comparison

- Useful for comparing companies within the same industry.

The Proprietary Ratio is a valuable solvency ratio that helps assess financial stability, owners' stake, and long-term risk, supporting informed financial decisions.

⚠ Limitations

Although the **Proprietary Ratio** is useful for measuring long-term financial stability, it has certain limitations that should be considered while interpreting it.

⚠ Main Limitations

❶ Based on Book Values

- Uses historical cost of assets and equity.
- Does not reflect current market value.

❷ Ignores Profitability

- High proprietary ratio does not guarantee high profits.
- Does not measure earning efficiency.

❸ Industry Differences

- Ideal ratio varies across industries.
- Not suitable for comparing different sectors.

❹ Does Not Consider Liquidity

- Focuses only on long-term solvency.
- Does not measure short-term financial position.

❺ Affected by Accounting Policies

- Changes in asset valuation or depreciation affect the ratio.
- Reduces comparability between companies.

❻ Incomplete Risk Assessment

- Does not consider economic conditions or future uncertainties.

The Proprietary Ratio is helpful in evaluating financial stability, but it has limitations such as reliance on book values and ignoring profitability. It should be analyzed along with other financial ratios for accurate assessment.

The Proprietary Ratio is an important solvency ratio that measures the proportion of total assets financed by shareholders' funds and helps assess long-term financial strength.

❸ Interest Coverage Ratio

The **Interest Coverage Ratio (ICR)** is a solvency (leverage) ratio that measures how many times a company's **operating profit (EBIT)** can cover its **interest expense**.

It shows the company's ability to meet fixed interest obligations.

Management Accounting

□ Higher ratio → Strong repayment ability

□ Lower ratio → Higher financial risk

□ Formula

Interest Coverage Ratio = EBIT ÷ Interest

Where:

□ **EBIT (Earnings Before Interest and Tax)** = Operating Profit

□ **Interest** = Interest on long-term borrowings

□ Ideal Ratio

Generally **2 times or more** is considered satisfactory.

□ Objectives

The **Interest Coverage Ratio (ICR)** measures how many times a company's operating profit (EBIT) can cover its interest expense.

Its main objective is to assess the company's ability to meet fixed interest obligations and evaluate long-term financial safety.

□ Main Objectives

❶ To Measure Interest-Paying Capacity

- Determines whether the company can pay interest regularly.
- Higher ratio indicates stronger repayment ability.

❷ To Assess Financial Risk

- Low ratio indicates higher financial risk.
- Helps identify risk due to excessive borrowing.

❸ To Evaluate Long-Term Solvency

- Measures the company's ability to sustain debt over time.

❹ To Provide Assurance to Lenders

- Helps banks and financial institutions assess creditworthiness.

❺ To Support Borrowing Decisions

- Assists management in deciding whether additional debt can be safely taken.

❻ To Monitor Debt Management Efficiency

- Reflects how effectively the company manages its debt obligations.

The primary objective of the Interest Coverage Ratio is to evaluate a company's ability to meet interest payments and maintain long-term financial stability.

Management Accounting

☐ Numerical Illustration

☐ Given:

Net Profit	=	₹2,50,000
Interest	=	₹50,000

Tax = ₹1,00,000

☐ Step 1: Calculate EBIT

EBIT	=	Net Profit	+	Interest	+	Tax
=	2,50,000	+	50,000	+		1,00,000
= ₹4,00,000						

☐ Step 2: Calculate Ratio

Interest Coverage Ratio	=	4,00,000	÷	50,000
= 8 times				

☐ Interpretation: The company can pay its interest 8 times from operating profit, indicating strong solvency.

☐ Advantages

The **Interest Coverage Ratio (ICR)** measures how many times a company's operating profit (EBIT) can cover its interest expense. It is a key indicator of debt-servicing capacity and financial stability.

☐ Main Advantages

☒ 1 Measures Interest-Paying Capacity

- Shows ability to meet fixed interest obligations.
- Higher ratio indicates strong financial position.

☒ 2 Assesses Financial Risk

- Helps identify risk due to excessive borrowing.
- Low ratio warns of potential default.

☒ 3 Useful for Lenders and Creditors

- Assists banks in evaluating creditworthiness.
- Provides assurance about timely interest payment.

☒ 4 Evaluates Debt Management Efficiency

- Reflects how effectively borrowed funds are utilized.

☒ 5 Supports Borrowing Decisions

- Helps management decide whether additional loans can be safely taken.

6 Facilitates Inter-Firm Comparison

- Useful for comparing companies within the same industry.

The Interest Coverage Ratio is a valuable solvency ratio that evaluates a company's ability to meet interest obligations and manage financial risk effectively.

⚠ Limitations

Although the **Interest Coverage Ratio (ICR)** is useful for measuring interest-paying capacity, it has certain limitations that should be considered while interpreting it.

Main Limitations

1 Based on Accounting Profit

- Uses EBIT (accounting profit), not actual cash flow.
- Company may show high EBIT but have poor liquidity.

2 Ignores Principal Repayment

- Measures only ability to pay interest.
- Does not consider repayment of loan principal.

3 Affected by Accounting Policies

- Changes in depreciation or expense recognition affect EBIT.
- Reduces comparability between firms.

4 Short-Term Focus

- Based on current year's profit.
- Does not guarantee long-term sustainability.

5 Industry Differences

- Ideal ratio varies across industries.
- Not suitable for comparing different sectors.

6 Can Be Misleading if Used Alone

- Should be analyzed along with other solvency and liquidity ratios.

The Interest Coverage Ratio is helpful for evaluating debt-servicing capacity, but it has limitations such as reliance on accounting profit and ignoring principal repayment. It should be interpreted along with other financial measures for accurate analysis.

The Interest Coverage Ratio is an important tool for evaluating a company's ability to meet interest obligations and manage financial risk effectively.

4 Total Assets to Debt Ratio

The **Total Assets to Debt Ratio** is a solvency (leverage) ratio that measures the relationship between **total assets** and **total debt**.

It indicates how many times a company's assets can cover its total debt obligations.

- ☐ Higher ratio → Greater financial safety
- ☐ Lower ratio → Higher financial risk

☐ Formula

Total Assets to Debt Ratio = Total Assets ÷ Total Debt

Where:

- ☐ **Total Assets** = Fixed Assets + Current Assets
- ☐ **Total Debt** = Long-term Debt + Short-term Debt

☐ Ideal Ratio

A ratio **greater than 1** is generally considered satisfactory.
Higher ratio indicates stronger solvency.

☐ Objectives

The **Total Assets to Debt Ratio** measures how many times a company's total assets can cover its total debt.

Its primary objective is to evaluate long-term financial strength and creditor safety.

☐ Main Objectives

☐ 1 To Measure Asset Coverage of Debt

- Determines whether total assets are sufficient to repay total debt.

☐ 2 To Assess Long-Term Solvency

- Evaluates the company's ability to meet long-term obligations.

☐ 3 To Evaluate Financial Risk

- Lower ratio indicates higher insolvency risk.
- Higher ratio shows stronger financial position.

☐ 4 To Provide Assurance to Creditors

- Helps lenders assess protection of their funds.

☐ 5 To Analyze Capital Structure

- Indicates relationship between total investment and borrowed funds.

☐ 6 To Support Financial Planning

- Assists management in maintaining balanced borrowing levels.

The main objective of the Total Assets to Debt Ratio is to measure how effectively a company's assets can cover its total debt and ensure long-term financial stability.

□ Numerical Illustration

□ Given:

Fixed	Assets	=	₹9,00,000
Current	Assets	=	₹3,00,000
Long-term	Debt	=	₹5,00,000
Short-term Debt = ₹2,00,000			

□ Step 1: Calculate Totals

Total	Assets	=	9,00,000	+	3,00,000
= ₹12,00,000					
Total	Debt	=	5,00,000	+	2,00,000
= ₹7,00,000					

□ Step 2: Calculate Ratio

Total	Assets	to	Debt	Ratio	=	12,00,000	÷	7,00,000
= 1.71 : 1								

□ Interpretation: Assets are 1.71 times total debt, indicating satisfactory solvency.

□ Advantages

The **Total Assets to Debt Ratio** measures how many times a company's total assets can cover its total debt. It is a key indicator of long-term financial strength and creditor protection.

□ Main Advantages

❶ Measures Overall Solvency

- Indicates the company's ability to repay total debt using its assets.

❷ Provides Safety to Creditors

- Higher ratio assures lenders about protection of their funds.

❸ Assesses Financial Risk

- Helps identify risk arising from excessive borrowing.

❹ Evaluates Capital Structure

- Shows relationship between total investment and borrowed funds.

❺ Useful for Investment Decisions

- Investors assess stability before investing.

❻ Facilitates Inter-Firm Comparison

Management Accounting

- Useful for comparing companies within the same industry.

The Total Assets to Debt Ratio is a valuable solvency ratio that measures asset coverage of debt and helps assess long-term financial stability and risk.

⚠ Limitations

Although the **Total Assets to Debt Ratio** is useful for measuring long-term solvency, it has certain limitations that should be considered during analysis.

⚠ Main Limitations

❶ Based on Book Values

- Uses historical cost of assets and liabilities.
- Does not reflect current market value of assets.

❷ Ignores Profitability

- High ratio does not guarantee strong profits.
- Does not measure earning capacity.

❸ Asset Quality Not Considered

- Does not show whether assets are liquid or obsolete.
- Poor-quality assets may not actually cover debt.

❹ Industry Differences

- Ideal ratio varies across industries.
- Not suitable for comparing different sectors.

❺ Affected by Accounting Policies

- Asset valuation and depreciation methods influence the ratio.
- Reduces comparability.

❻ Can Be Misleading if Used Alone

- Should be analyzed along with other solvency and liquidity ratios.

The Total Assets to Debt Ratio is helpful for assessing asset coverage of debt, but it has limitations such as reliance on book values and ignoring profitability. It should be interpreted carefully along with other financial indicators for accurate evaluation.

The Total Assets to Debt Ratio is an important solvency ratio that evaluates how effectively a company's assets cover its total debt and helps assess long-term financial stability.

Management Accounting

Leverage ratios are important tools for evaluating financial risk, capital structure, and long-term solvency. They help management maintain an optimal balance between debt and equity.

⑦ **Coverage Ratios** measure a company's ability to meet its **fixed financial obligations** such as interest, loan installments, and fixed charges.

They show how comfortably the business can cover these obligations from its earnings.

□ Higher ratio → Better repayment capacity

□ Lower ratio → Higher financial risk

□ Objectives

Coverage Ratios measure a company's ability to meet its fixed financial obligations such as interest and loan repayments.

The main objective is to assess debt-servicing capacity and financial stability.

□ Main Objectives

① To Measure Debt-Servicing Capacity

- Determines ability to pay interest and principal.

② To Assess Financial Risk

- Identifies risk arising from high fixed financial charges.

③ To Evaluate Long-Term Solvency

- Shows whether earnings are sufficient to meet obligations.

④ To Provide Assurance to Lenders

- Helps banks evaluate creditworthiness.

⑤ To Support Borrowing Decisions

- Assists management in deciding safe level of debt.

⑥ To Monitor Financial Stability

- Ensures fixed charges are comfortably covered by earnings.

The primary objective of coverage ratios is to evaluate the company's ability to meet fixed financial commitments and maintain long-term financial stability.

Advantages

Coverage Ratios measure a company's ability to meet fixed financial obligations such as interest and loan repayments. They are important indicators of financial safety and solvency.

Management Accounting

□ Main Advantages

1 Measures Debt-Servicing Capacity

- Shows whether earnings are sufficient to cover fixed charges.

2 Assesses Financial Risk

- Helps identify risk due to excessive borrowing.

3 Useful for Lenders and Banks

- Assists in evaluating creditworthiness.
- Provides assurance regarding repayment ability.

4 Supports Borrowing Decisions

- Helps management decide safe level of debt.

5 Evaluates Long-Term Financial Stability

- Indicates sustainability of financial commitments.

6 Facilitates Inter-Firm Comparison

- Useful for comparing companies within the same industry.

Coverage ratios are valuable tools for assessing repayment capacity, financial risk, and long-term solvency, helping lenders and management make informed financial decisions.

Limitations

Although **Coverage Ratios** are useful for measuring debt-servicing capacity, they have certain limitations that should be considered during analysis.

△ Main Limitations

1 Based on Accounting Profit

- Calculated using EBIT or net income.
- May not reflect actual cash available for repayment.

2 Ignores Timing of Cash Flows

- Does not consider when cash inflows and outflows occur.
- Company may face temporary liquidity problems.

3 Affected by Accounting Policies

- Depreciation and revenue recognition methods affect earnings.
- Reduces comparability between firms.

4 Short-Term Focus

- Usually based on one year's data.

- Does not guarantee long-term sustainability.

5 Industry Differences

- Ideal coverage ratios vary across industries.
- Not suitable for comparing different sectors.

6 Can Be Misleading if Used Alone

- Should be analyzed along with liquidity and leverage ratios.

Coverage ratios are helpful for assessing repayment capacity, but they rely on accounting figures and may ignore cash flow timing and economic conditions. They should be interpreted along with other financial indicators for accurate analysis.

□ Main Types of Coverage Ratios

1 Interest Coverage Ratio

The **Interest Coverage Ratio (ICR)** is a coverage (solvency) ratio that measures how many times a company's **operating profit (EBIT)** can cover its **interest expense**.

It shows the company's ability to meet fixed interest obligations.

- Higher ratio → Strong repayment capacity
- Lower ratio → Higher financial risk

□ Formula

Interest Coverage Ratio = EBIT ÷ Interest

Where:

- **EBIT** (Earnings Before Interest and Tax) = Operating Profit
- **Interest** = Interest on long-term borrowings

□ Ideal Ratio

Generally **2 times or more** is considered satisfactory.

□ Objectives

The **Interest Coverage Ratio (ICR)** measures how many times a company's operating profit (EBIT) can cover its interest expense.

Its main objective is to evaluate the company's ability to meet fixed interest obligations and assess financial safety.

Management Accounting

□ Main Objectives

❶ To Measure Interest-Paying Capacity

- Determines whether the company can pay interest regularly.
- Higher ratio indicates stronger repayment ability.

❷ To Assess Financial Risk

- Low ratio indicates higher financial risk.
- Helps identify risk due to excessive borrowing.

❸ To Evaluate Long-Term Solvency

- Measures the company's ability to sustain debt over time.

❹ To Provide Assurance to Lenders

- Helps banks and financial institutions assess creditworthiness.

❺ To Support Borrowing Decisions

- Assists management in deciding whether additional debt can be safely taken.

❻ To Monitor Debt Management Efficiency

- Reflects how effectively the company manages its debt obligations.

The primary objective of the Interest Coverage Ratio is to assess a company's ability to meet interest payments and maintain long-term financial stability.

□ Numerical Illustration

□ Given:

Net Profit	=	₹2,00,000
Interest	=	₹50,000

Tax = ₹50,000

□ Step 1: Calculate EBIT

EBIT	=	Net Profit	+	Interest	+	Tax
=		2,00,000	+	50,000	+	50,000
=		₹3,00,000				

□ Step 2: Calculate Ratio

Interest Coverage Ratio	=	3,00,000	÷	50,000
= 6 times				

□ Interpretation: The company can pay its interest 6 times from operating profit, indicating strong solvency.

□ Advantages

The **Interest Coverage Ratio (ICR)** measures how many times a company's operating profit (EBIT) can cover its interest expense. It is an important indicator of debt-servicing capacity.

□ Main Advantages

❏ 1 Measures Interest-Paying Capacity

- Shows ability to meet fixed interest obligations.
- Higher ratio indicates strong financial position.

❏ 2 Assesses Financial Risk

- Helps identify risk due to excessive borrowing.
- Low ratio warns of potential default.

❏ 3 Useful for Lenders and Creditors

- Assists banks in evaluating creditworthiness.
- Provides assurance about timely interest payment.

❏ 4 Evaluates Debt Management Efficiency

- Reflects how effectively borrowed funds are utilized.

❏ 5 Supports Borrowing Decisions

- Helps management decide whether additional loans can be safely taken.

❏ 6 Facilitates Inter-Firm Comparison

- Useful for comparing companies within the same industry.

The Interest Coverage Ratio is a valuable solvency ratio that evaluates a company's ability to meet interest obligations and maintain long-term financial stability.

⚠ Limitations

Although the **Interest Coverage Ratio (ICR)** is useful for measuring interest-paying capacity, it has certain limitations that should be considered during analysis.

⚠ Main Limitations

❏ 1 Based on Accounting Profit

- Uses EBIT (accounting profit), not actual cash flow.
- Company may show high EBIT but face liquidity problems.

❏ 2 Ignores Principal Repayment

- Measures only interest payment ability.
- Does not consider repayment of loan principal.

3 Affected by Accounting Policies

- Depreciation and revenue recognition methods affect EBIT.
- Reduces comparability between companies.

4 Short-Term Focus

- Based on one year's profit.
- Does not guarantee long-term sustainability.

5 Industry Differences

- Ideal ratio varies across industries.
- Not suitable for comparing different sectors.

6 Can Be Misleading if Used Alone

- Should be analyzed along with other solvency and liquidity ratios.

The Interest Coverage Ratio is helpful for evaluating debt-servicing capacity, but it has limitations such as reliance on accounting profit and ignoring principal repayment. It should be interpreted along with other financial indicators for accurate analysis.

The Interest Coverage Ratio is an important tool for evaluating a company's ability to meet interest obligations and manage financial risk effectively.

2 Debt Service Coverage Ratio (DSCR)

The **Debt Service Coverage Ratio (DSCR)** is a coverage ratio that measures a company's ability to pay **both interest and principal repayments** from its operating income.

It shows whether the business generates enough earnings to cover total debt obligations.

☐ $DSCR > 1 \rightarrow$ Sufficient income to repay debt

☐ $DSCR < 1 \rightarrow$ Insufficient income

☐ Formula

DSCR = Net Operating Income ÷ Total Debt Service

Where:

☐ **Net Operating Income (NOI)** = EBIT (or Cash Operating Profit)

☐ **Total Debt Service** = Interest + Principal Repayment

☐ Ideal Ratio

Generally **1.5 or more** is considered satisfactory by lenders.

Management Accounting

□ Objectives

The **Debt Service Coverage Ratio (DSCR)** measures a company's ability to repay both **interest and principal** from its operating income.

Its main objective is to evaluate total debt-servicing capacity and financial stability.

□ Main Objectives

❏ 1 To Measure Total Debt Repayment Capacity

- Determines whether operating income is sufficient to cover interest and principal payments.

❏ 2 To Assess Financial Risk

- Identifies risk arising from heavy debt burden.
- Lower DSCR indicates higher risk of default.

❏ 3 To Evaluate Long-Term Solvency

- Shows whether the company can sustain its debt obligations over time.

❏ 4 To Provide Assurance to Lenders

- Helps banks and financial institutions assess creditworthiness.

❏ 5 To Support Loan Approval Decisions

- Used by lenders while granting loans.
- Ensures borrower has adequate repayment ability.

❏ 6 To Assist Financial Planning

- Helps management maintain safe borrowing levels.

The primary objective of DSCR is to evaluate a company's ability to meet its total debt obligations and maintain long-term financial stability.

□ Numerical Illustration

□ Given:

EBIT	=	₹5,00,000
Interest	=	₹1,00,000

Principal Repayment = ₹1,50,000

□ Step 1: Calculate Total Debt Service

Total	Debt	Service	=	1,00,000	+	1,50,000
= ₹2,50,000						

□ Step 2: Calculate DSCR

Management Accounting

$$\text{DSCR} = \frac{5,00,000}{2,50,000} = 2 \text{ times}$$

□ Interpretation: The company generates twice the income required to repay its debt obligations.

□ Advantages

The **Debt Service Coverage Ratio (DSCR)** measures a company's ability to repay both interest and principal from its operating income. It is widely used by banks and financial institutions.

□ Main Advantages

❶ Measures Complete Debt-Servicing Capacity

- Covers both interest and principal repayment.
- Gives a comprehensive view of repayment ability.

❷ Useful for Loan Approval

- Helps banks evaluate creditworthiness.
- Often used as a key lending criterion.

❸ Assesses Financial Risk

- Identifies risk arising from excessive borrowing.
- Lower DSCR indicates higher default risk.

❹ Evaluates Long-Term Solvency

- Shows sustainability of debt obligations over time.

❺ Supports Financial Planning

- Helps management maintain safe borrowing levels.

❻ Facilitates Performance Monitoring

- Useful for comparing debt repayment ability across years.

The DSCR is a powerful coverage ratio that evaluates total debt repayment capacity and helps lenders and management assess financial stability and risk effectively.

⚠ Limitations

Although the **Debt Service Coverage Ratio (DSCR)** is useful for measuring total debt repayment capacity, it has certain limitations that should be considered during analysis.

⚠ Main Limitations

❶ Based on Accounting Income

- Uses EBIT or operating profit, not actual cash flow.

Management Accounting

- May not reflect real cash available for repayment.

2 Ignores Timing of Cash Flows

- Does not consider when cash inflows and outflows occur.
- Temporary liquidity issues may arise even with good DSCR.

3 Affected by Accounting Policies

- Depreciation and revenue recognition methods influence operating income.
- Reduces comparability between firms.

4 Short-Term Measurement

- Usually based on one year's data.
- Does not guarantee long-term sustainability.

5 Industry Differences

- Ideal DSCR varies across industries.
- Not suitable for comparing different sectors.

6 Can Be Misleading if Used Alone

- Should be analyzed along with leverage and liquidity ratios.

The DSCR is an important indicator of debt repayment capacity, but it relies on accounting figures and may ignore cash flow timing and external factors. It should be interpreted along with other financial measures for accurate evaluation.

The Debt Service Coverage Ratio (DSCR) is an important coverage ratio that evaluates a company's ability to repay both interest and principal, helping lenders assess creditworthiness and financial stability.

3 Fixed Charge Coverage Ratio

The **Fixed Charge Coverage Ratio (FCCR)** is a coverage ratio that measures a company's ability to meet **all fixed financial charges** from its earnings.

Fixed charges include:

- Interest on loans
- Lease payments
- Preference dividend (if considered fixed obligation)

☐ Higher ratio → Better financial safety

☐ Lower ratio → Higher financial risk

Management Accounting

□ Formula

Fixed Charge Coverage Ratio = (EBIT + Fixed Charges) ÷ Fixed Charges

Where:

- **EBIT** = Earnings Before Interest and Tax
- **Fixed Charges** = Interest + Lease Payments (and other fixed obligations)

□ Ideal Ratio

Generally **2 times or more** is considered satisfactory.

□ Objectives

The **Fixed Charge Coverage Ratio (FCCR)** measures a company's ability to meet all fixed financial charges such as interest and lease payments from its earnings.

Its main objective is to assess overall fixed obligation coverage and financial safety.

□ Main Objectives

❶ To Measure Coverage of Fixed Charges

- Determines whether earnings are sufficient to cover all fixed financial obligations.

❷ To Assess Financial Risk

- Identifies risk arising from heavy fixed financial commitments.

❸ To Evaluate Long-Term Solvency

- Shows the company's ability to sustain fixed charges over time.

❹ To Provide Assurance to Lenders

- Helps banks assess creditworthiness and repayment capacity.

❺ To Support Borrowing Decisions

- Assists management in deciding safe levels of debt and lease commitments.

❻ To Monitor Financial Stability

- Ensures fixed financial obligations are comfortably covered by earnings.

The primary objective of the Fixed Charge Coverage Ratio is to evaluate a company's ability to meet all fixed financial commitments and maintain long-term financial stability.

□ Numerical Illustration

□ Given:

Management Accounting

EBIT	=	₹4,00,000
Interest	=	₹80,000

Lease Payment = ₹20,000

□ Step 1: Calculate Fixed Charges

Fixed Charges	=	80,000	+	20,000
= ₹1,00,000				

□ Step 2: Calculate Ratio

FCCR	=	(4,00,000	+	1,00,000)	÷	1,00,000
=		5,00,000		÷		1,00,000

= **5 times**

□ Interpretation: The company can cover its fixed charges 5 times from earnings.

□ Advantages

The **Fixed Charge Coverage Ratio (FCCR)** measures a company's ability to cover all fixed financial charges such as interest and lease payments from its earnings.

□ Main Advantages

❑ Measures Total Fixed Obligation Coverage

- Covers interest, lease payments, and other fixed charges.
- Provides a comprehensive view of repayment ability.

❑ Assesses Financial Risk

- Helps identify risk due to heavy fixed commitments.
- Lower ratio signals potential financial stress.

❑ Useful for Lenders and Creditors

- Assists banks in evaluating creditworthiness.
- Provides assurance regarding repayment capacity.

❑ Supports Borrowing Decisions

- Helps management determine safe levels of debt and lease commitments.

❑ Evaluates Long-Term Financial Stability

- Indicates sustainability of fixed financial obligations.

❑ Facilitates Performance Comparison

- Useful for comparing coverage ability across years or with competitors.

The Fixed Charge Coverage Ratio is a valuable coverage ratio that evaluates a company's ability to meet all fixed financial commitments and maintain long-term financial stability.

⚠ Limitations

Although the **Fixed Charge Coverage Ratio (FCCR)** is useful for measuring the ability to cover fixed financial obligations, it has certain limitations that should be considered during analysis.

⚠ Main Limitations

❶ Based on Accounting Profit

- Uses EBIT, not actual cash flow.
- Company may show high earnings but face liquidity issues.

❷ Ignores Timing of Cash Flows

- Does not consider when payments are due.
- Temporary cash shortages may occur.

❸ Affected by Accounting Policies

- Depreciation and revenue recognition methods influence EBIT.
- Reduces comparability between firms.

❹ Short-Term Measurement

- Based on one year's data.
- Does not guarantee long-term sustainability.

❺ Industry Differences

- Ideal ratio varies across industries.
- Not suitable for comparing different sectors.

❻ May Exclude Some Fixed Obligations

- Sometimes preference dividends or other commitments are not included.
- Can understate total financial burden.

The Fixed Charge Coverage Ratio is helpful for assessing fixed obligation coverage, but it relies on accounting figures and may ignore cash flow timing and certain commitments. It should be interpreted along with other financial ratios for accurate evaluation.

The Fixed Charge Coverage Ratio is an important coverage ratio that evaluates a company's ability to meet all fixed financial obligations and maintain financial stability.

Coverage ratios are important tools for evaluating a company's ability to meet fixed financial obligations and manage financial risk effectively.

Management Accounting

The main types of ratios are Liquidity, Profitability, Solvency, Activity, and Coverage ratios. Each category helps analyze a different aspect of financial performance.

Preparation of Financial Statements from Ratios.

Illustration 1 – Combined Liquidity & Profitability Ratios

□ **Given:**

Current	Ratio	=	2	:	1
Working	Capital	=			₹1,00,000
Gross	Profit	Ratio	=		25%
Stock	Turnover	Ratio	=	5	times

Sales = ₹10,00,000

□ Step 1: Current Assets & Current Liabilities

Current Ratio = CA / CL = 2

Let	CL	=	x
CA = 2x			
Working	Capital	=	CA
1,00,000	=	2x	– C L
			x

x = ₹1,00,000

So:

CL	=	₹1,00,000
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CA = ₹2,00,000

□ Step 2: Gross Profit

Gross	Profit	=	25%	of	10,00,000
= ₹2,50,000					
COGS	=	10,00,000	–		2,50,000
= ₹7,50,000					

□ Step 3: Stock Calculation

Stock Turnover Ratio = COGS / Average Stock

5 = 7,50,000 / Stock

Stock = ₹1,50,000

□ Income Statement (Partial)

Management Accounting

Sales	=	₹10,00,000
COGS	=	₹7,50,000
Gross Profit = ₹2,50,000		

□ Balance Sheet (Partial)

Assets	Amount
Stock	₹1,50,000
Other Current Assets	₹50,000
Total Current Assets	₹2,00,000
Liabilities	Amount
Current Liabilities	₹1,00,000
Working Capital	₹1,00,000

□ Illustration 2 – Liquidity + Leverage + Profitability

□ Given:

Current Ratio	=	2.5	:	1
Working Capital	=			₹1,50,000
Debt–Equity Ratio	=	1	:	2
Net Profit Ratio	=			10%
Sales = ₹12,00,000				

□ Step 1: Current Assets & Liabilities

Let	CL	=	x
CA = 2.5x			
Working			Capital:
1,50,000	=	2.5x	x
1,50,000	=		1.5x
x = ₹1,00,000			
So:			
CL	=		₹1,00,000
CA = ₹2,50,000			

Management Accounting

□ Step 2: Net Profit

Net Profit = 10% of 12,00,000
= ₹1,20,000

□ Step 3: Capital Structure

Debt–Equity Ratio = 1 : 2

Let Debt = ₹1,00,000

Equity = ₹2,00,000

Total Capital = ₹3,00,000

□ Income Statement (Partial)

Sales = ₹12,00,000

Net Profit = ₹1,20,000

□ Balance Sheet (Partial)

Assets	Amount
Current Assets	₹2,50,000
Fixed Assets	₹50,000
Total	₹3,00,000
Liabilities	Amount
Debt	₹1,00,000
Equity	₹2,00,000

□ Illustration 3 – Turnover + Liquidity + Leverage

□ Given:

Current Ratio = 3 : 1
Working Capital = ₹2,00,000
Stock Turnover Ratio = 4 times
COGS = ₹8,00,000

Debt–Equity Ratio = 1 : 1

□ Step 1: CA & CL

Let CL = x
CA = 3x

Management Accounting

$$\begin{aligned}
 2,00,000 &= 3x - x \\
 2,00,000 &= 2x \\
 x &= ₹1,00,000 \\
 \text{So:} \\
 \text{CL} &= ₹1,00,000 \\
 \text{CA} &= ₹3,00,000
 \end{aligned}$$

□ Step 2: Stock

$$\begin{aligned}
 \text{Stock Turnover} &= 4 \\
 4 &= 8,00,000 / \text{Stock} \\
 \text{Stock} &= ₹2,00,000
 \end{aligned}$$

□ Step 3: Capital Structure

$$\begin{aligned}
 \text{Debt-Equity} &= 1 : 1 \\
 \text{Assume Equity} &= ₹2,00,000 \\
 \text{Debt} &= ₹2,00,000 \\
 \text{Total Capital} &= ₹4,00,000
 \end{aligned}$$

Illustration 1 (Comprehensive – Liquidity + Profitability + Leverage)

□ Given:

- Current Ratio = 2 : 1
- Working Capital = ₹1,20,000
- Debt-Equity Ratio = 1 : 2
- Gross Profit Ratio = 25%
- Net Profit Ratio = 10%
- Sales = ₹8,00,000
- Closing Stock = ₹80,000

Prepare Trading A/c, P&L A/c and Balance Sheet.

□ Step 1: Current Assets & Current Liabilities

$$\begin{aligned}
 \text{Current Ratio} &= \text{CA} / \text{CL} = 2 \\
 \text{Let CL} &= x \\
 \text{CA} &= 2x
 \end{aligned}$$

Management Accounting

Working Capital	=	CA	–	CL
1,20,000	=	2x	–	x

$x = ₹1,20,000$

So:

CL	=		₹1,20,000
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CA = ₹2,40,000

□ Step 2: Gross Profit

Gross Profit	=	25%	of	8,00,000
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= ₹2,00,000

COGS	=	8,00,000	–	2,00,000
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= ₹6,00,000

□ Step 3: Net Profit

Net Profit	=	10%	of	8,00,000
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= ₹80,000

Operating Expenses	=	2,00,000	–	80,000
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= ₹1,20,000

□ Step 4: Capital Structure

Debt–Equity = 1 : 2

Let Debt	=		₹1,00,000
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Equity = ₹2,00,000

Total Capital = ₹3,00,000

Total Assets = Total Liabilities = ₹3,00,000

Since CA	=		2,40,000
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Fixed Assets	=	3,00,000	–	2,40,000
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= ₹60,000

□ Trading & P&L Account

Sales	=		₹8,00,000
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COGS	=		₹6,00,000
------	---	--	-----------

Gross Profit	=		₹2,00,000
--------------	---	--	-----------

Management Accounting

Expenses	=	₹1,20,000
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Net Profit = ₹80,000

□ Balance Sheet

Assets

Fixed	Assets	=	₹60,000
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Closing	Stock	=	₹80,000
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Other	Current	Assets	=	₹1,60,000
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Total = ₹3,00,000

Liabilities

Debt	=	₹1,00,000
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Current	Liabilities	=	₹1,20,000
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Equity	=	₹80,000	(balancing	figure	after	adjustments)
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Total = ₹3,00,000

□ Illustration 2 (Turnover + Liquidity + Leverage)

□ Given:

- Current Ratio = 3 : 1
- Working Capital = ₹2,00,000
- Stock Turnover Ratio = 4 times
- Gross Profit Ratio = 20%
- Sales = ₹10,00,000
- Debt–Equity Ratio = 1 : 1

Prepare Final Accounts.

□ Step 1: CA & CL

Let	CL	=	x
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CA = 3x

2,00,000	=	3x	–	x
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2,00,000	=	2x
----------	---	----

x = ₹1,00,000

So:

CL	=	₹1,00,000
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Management Accounting

CA = ₹3,00,000

Management Accounting

□ Step 2: Gross Profit

Gross Profit = 20% of 10,00,000
= ₹2,00,000

COGS = ₹8,00,000

□ Step 3: Stock

Stock Turnover = COGS / Stock

4 = 8,00,000 / Stock

Stock = ₹2,00,000

□ Step 4: Capital Structure

Debt–Equity = 1 : 1

Let Equity = ₹2,00,000

Debt = ₹2,00,000

Total Capital = ₹4,00,000

Fixed Assets = 4,00,000 – 3,00,000
= ₹1,00,000

□ Final Accounts (Summary)

Trading Account

Sales = ₹10,00,000

COGS = ₹8,00,000

Gross Profit = ₹2,00,000

Balance Sheet

Assets

Fixed Assets = ₹1,00,000

Stock = ₹2,00,000

Other Current Assets = ₹1,00,000

Total = ₹4,00,000

Liabilities

Debt = ₹2,00,000

Current Liabilities = ₹1,00,000

Equity = ₹1,00,000

Total = ₹4,00,000

UNIT II – Ratio Analysis

5 Mark Questions

Q.No	Question	Level
1	Define Ratio Analysis.	K1
2	State the advantages of Ratio Analysis.	K2
3	List the limitations of Ratio Analysis.	K2
4	What are Liquidity Ratios?	K1
5	What are Profitability Ratios?	K1

8 Mark Questions

Q.No	Question	Level
1	Explain the concept and importance of Ratio Analysis.	K2
2	Discuss different types of ratios used in financial analysis.	K2
3	Calculate Liquidity and Profitability Ratios from given data.	K3
4	Explain Solvency and Leverage Ratios.	K2
5	Prepare financial statements from given ratios.	K3

Unit III

Funds Flow & Cash Flow Analysis

Introduction, Meaning of Funds Flow Statement-Ascertainment of Flow of Funds-
Schedule of Changes in Working Capital-Adjusted Profit and Loss Account -
Preparation of Funds Flow Statement

Cash Flow Statement: Meaning – Advantages - Limitations - Preparation of Cash
Flow Statement as per AS 3 -Cash Flow from Operating, Financing and investing
activities.

Funds Flow Statement

The **Funds Flow Statement** is a financial statement that shows the **movement of funds (working capital)** between two balance sheet dates.

It explains:

- Where the funds came from (**Sources of Funds**)
- How the funds were used (**Application of Funds**)

□ Meaning of “Funds”

In Funds Flow Statement, **Funds mean Working Capital**.

Working Capital = Current Assets – Current Liabilities

Any increase or decrease in working capital represents movement of funds.

Management Accounting

□ Purpose

The **Funds Flow Statement** shows the movement of funds (working capital) between two accounting periods.

Its purpose is to explain how financial resources are generated and utilized in a business.

□ Main Purposes

❏ 1 To Analyze Changes in Financial Position

- Explains changes between two balance sheet dates.

❏ 2 To Identify Sources of Funds

- Shows where funds came from (issue of shares, loans, sale of assets, etc.).

❏ 3 To Identify Application of Funds

- Shows how funds were used (purchase of assets, loan repayment, dividend payment, etc.).
-

4 To Measure Changes in Working Capital

- Highlights increase or decrease in working capital.

5 To Assist in Financial Planning

- Helps management plan future financing and investment decisions.

6 To Evaluate Long-Term Financial Strategy

- Useful for analyzing capital structure decisions.

The main purpose of the Funds Flow Statement is to explain the movement of funds and changes in working capital, helping management understand financial operations and plan effectively.

□ Nature

The **Funds Flow Statement** explains the movement of funds (working capital) between two accounting periods.

Its nature reflects how it analyzes long-term financial changes rather than daily cash transactions.

□ Nature of Funds Flow Statement

1 Based on Working Capital Concept

- “Funds” mean **Working Capital (Current Assets – Current Liabilities)**.
- Focuses on changes in working capital.

2 Based on Comparative Balance Sheets

- Prepared using two balance sheets of different dates.
- Shows financial changes between periods.

3 Shows Sources and Application of Funds

- Identifies how funds were generated and utilized.

4 Focuses on Long-Term Financial Changes

- Concerned with non-current assets and long-term liabilities.
- Does not record routine cash transactions.

5 Analytical in Nature

- Helps in understanding financial strategy and capital structure decisions.

6 Supplementary Statement

- Not a substitute for Balance Sheet or Income Statement.
- Provides additional financial insight.

Management Accounting

The Funds Flow Statement is analytical and explanatory in nature. It focuses on changes in working capital and helps evaluate long-term financial movements within a business.

□ Sources of Funds

Sources of Funds refer to the various ways by which a business obtains funds (increase in working capital).

In a **Funds Flow Statement**, sources represent inflow of funds during the accounting period.

□ Main Sources of Funds

In a **Funds Flow Statement**, **Sources of Funds** refer to transactions that **increase working capital** during an accounting period.

Funds mean **Working Capital (Current Assets – Current Liabilities)**.

Any transaction that increases working capital is treated as a **source of funds**.

□ Main Sources of Funds

1 Funds from Operations

This is the **most important source of funds**.

It represents profit earned from regular business activities after adjusting for:

- Non-cash expenses (Depreciation, Amortization)
- Non-operating losses (Loss on sale of assets)
- Non-operating gains (Profit on sale of assets deducted)

□ Calculation:

Funds from Operations =

Net Profit

- Non-cash Expenses
- Non-operating Incomes

□ It shows internal generation of funds.

2 Issue of Share Capital

When a company issues:

- Equity shares
- Preference shares

Cash is received, increasing long-term funds and working capital.

□ Example:

If shares worth ₹5,00,000 are issued for cash → ₹5,00,000 is a source of funds.

3 Issue of Debentures or Bonds

Raising funds through:

- Debentures
- Bonds

These are long-term borrowings and increase funds available to the business.

☐ It increases liabilities but also increases cash.

4 Long-Term Borrowings

Loans taken from:

- Banks
- Financial institutions

Since it increases long-term liabilities and cash, it is treated as a source.

5 Sale of Fixed Assets

When land, building, plant, or machinery is sold:

- Cash received increases working capital.
 - Only the sale proceeds are considered.
- ☐ Even if sold at profit or loss, total cash received is the source.

6 Non-Operating Receipts

These are incomes not from regular operations, such as:

- Profit on sale of fixed assets
- Refund of income tax
- Compensation received

They increase funds available in the business.

7 Decrease in Working Capital

If:

- Current Assets decrease, OR
- Current Liabilities increase

Working capital decreases → It becomes a source of funds.

☐

If stock decreases, it releases funds.

Example:

Management Accounting

□ Summary Table

Source of Funds	Reason
Funds from Operations	Internal profit generation
Issue of Shares	Increase in equity capital
Issue of Debentures	Long-term borrowing
Long-term Loans	External financing
Sale of Fixed Assets	Conversion of assets into cash
Non-operating Income	Additional inflow
Decrease in Working Capital	Release of funds

The main sources of funds represent all transactions that increase working capital and strengthen the financial position of the business. Understanding these sources helps analyze how a company finances its operations and expansion.

Sources of Funds represent the inflow of long-term financial resources that increase working capital and support business expansion or operations.

□ Application of Funds

Application of Funds refers to the **uses of funds** that result in a **decrease in working capital** during an accounting period.

In the **Funds Flow Statement**, these items appear on the **Application side**.

Funds mean **Working Capital (Current Assets – Current Liabilities)**. Any transaction that reduces working capital is treated as an application of funds.

□ Main Applications of Funds

① Purchase of Fixed Assets

When a company purchases:

- Land
- Building
- Plant & Machinery
- Furniture

Cash is used to acquire long-term assets → Working capital decreases.

□

Example:

Purchase of machinery for ₹3,00,000 (cash) → Application of funds.

Management Accounting

2 Redemption of Share Capital

When preference shares are redeemed, cash is paid to shareholders → Working capital decreases.

3 Redemption of Debentures or Bonds

Repayment of long-term borrowings reduces cash and long-term liabilities.

☐ Treated as application because funds are used to repay debt.

4 Repayment of Long-Term Loans

Loans from banks or institutions repaid in cash → Application of funds.

5 Payment of Dividend

Dividend paid to shareholders reduces cash balance.

☐ Only dividend paid (not declared) is treated as application.

6 Payment of Tax

Income tax paid during the year reduces working capital.

7 Increase in Working Capital

If:

- Current Assets increase, OR
- Current Liabilities decrease

Working capital increases → Treated as application of funds.

☐

Example:

Increase in stock or debtors uses funds.

☐ Summary Table

Application of Funds	Reason
Purchase of Fixed Assets	Cash used for long-term assets
Redemption of Shares	Repayment to shareholders
Redemption of Debentures	Debt repayment
Loan Repayment	Reduction of borrowings
Dividend Paid	Cash outflow
Tax Paid	Cash payment
Increase in Working Capital	Funds tied in current assets

Applications of funds represent the various ways in which funds are utilized in a business. These transactions reduce working capital and help explain how financial resources are deployed during the accounting period.

The Funds Flow Statement is an important tool of financial analysis that explains how funds move within a business and how working capital changes between two accounting periods.

Meaning

Ascertainment of Flow of Funds means determining the **movement of funds (working capital)** between two balance sheet dates.

It identifies whether there is:

- ☐ Increase in Working Capital (Application of Funds)
- ☐ Decrease in Working Capital (Source of Funds)

☐ Meaning of Funds

In Funds Flow Statement, **Funds = Working Capital**

Working Capital = Current Assets – Current Liabilities

☐ Steps to Ascertain Flow of Funds

☒ 1 Prepare Schedule of Changes in Working Capital

Compare Current Assets and Current Liabilities of two years.

Rules:

Item	Increase	Decrease
Current Assets	Increase in WC	Decrease in WC
Current Liabilities	Decrease in WC	Increase in WC

☒ 2 Find Increase or Decrease in Working Capital

- If Total CA increase > CL increase → Increase in WC
- If Total CL increase > CA increase → Decrease in WC

☒ 3 Identify Sources and Applications

After calculating change in working capital, determine:

☐ Sources of Funds

- Issue of shares
- Long-term loans
- Sale of fixed assets
- Funds from operations

☐ Applications of Funds

- Purchase of fixed assets
- Loan repayment
- Dividend paid

Management Accounting

- Tax paid

□ Illustration

□ Comparative Balance Sheet Data

Particulars	Year 1 (₹)	Year 2 (₹)
Stock	50,000	70,000
Debtors	40,000	60,000
Creditors	30,000	50,000

□ Step 1: Calculate Working Capital

Year 1

$$\text{CA} = 50,000 + 40,000 = 90,000$$

$$\text{CL} = 30,000$$

$$\text{WC} = 60,000$$

Year 2

$$\text{CA} = 70,000 + 60,000 = 1,30,000$$

$$\text{CL} = 50,000$$

$$\text{WC} = 80,000$$

□ Step 2: Find Change

$$\text{Increase in Working Capital} = 80,000 - 60,000$$

$$= ₹20,000$$

$$\square \text{ Increase in Working Capital} = \text{Application of Funds}$$

Ascertainment of flow of funds involves analyzing changes in working capital and identifying sources and applications of funds between two accounting periods. It helps understand how financial resources move within a business.

Ascertainment of **Flow of Funds** means identifying the movement of **working capital** between two balance sheet dates.

$$\text{Funds} = \text{Working Capital (Current Assets – Current Liabilities)}$$

□ Steps to Ascertain Flow of Funds

1 Prepare Comparative Balance Sheet

A **Comparative Balance Sheet** shows the financial position of a business for **two or more periods side-by-side**, along with the **increase or decrease** in each item. It helps in analyzing financial progress over time.

□ Format of Comparative Balance Sheet

Particulars	Year 1	Year 2	Increase / (Decrease)	% Change
Assets				
Non-Current Assets				
Current Assets				
Total Assets				
Liabilities & Capital				
Share Capital				
Reserves & Surplus				
Non-Current Liabilities				
Current Liabilities				
Total Liabilities				

□ Example of Comparative Balance Sheet

Balance Sheet Data

Particulars	2022 (₹)	2023 (₹)
Machinery	80,000	1,00,000
Building	1,20,000	1,50,000
Stock	40,000	60,000
Debtors	30,000	50,000

Management Accounting

Cash	10,000	20,000
Share Capital	2,00,000	2,20,000
Creditors	50,000	80,000
Bank Loan	30,000	80,000

□ Comparative Balance Sheet

Particulars	2022 (₹)	2023 (₹)	Increase / (Decrease) (₹)	% Change
Assets				
Machinery	80,000	1,00,000	+20,000	25%
Building	1,20,000	1,50,000	+30,000	25%
Stock	40,000	60,000	+20,000	50%
Debtors	30,000	50,000	+20,000	66.7%
Cash	10,000	20,000	+10,000	100%
Total Assets	2,80,000	3,80,000	+1,00,000	35.7%
Liabilities & Capital				
Share Capital	2,00,000	2,20,000	+20,000	10%
Creditors	50,000	80,000	+30,000	60%
Bank Loan	30,000	80,000	+50,000	166.7%
Total Liabilities	2,80,000	3,80,000	+1,00,000	35.7%

□ Steps to Prepare Comparative Balance Sheet

1. Place figures of two years side by side.
2. Calculate the **absolute change** (Year 2 – Year 1).
3. Calculate the **percentage change**:

Percentage Change = $\frac{\text{Increase or Decrease}}{\text{Year 1 Value}} \times 100$

Interpret the changes (increase in assets, rise in liabilities, etc.).

Illustration 1

Balance Sheet as on 31st March

Particulars	2022 (₹)	2023 (₹)
Land & Building	1,00,000	1,20,000
Plant & Machinery	60,000	80,000
Stock	40,000	50,000

Management Accounting

Debtors	30,000	45,000
Cash	20,000	25,000
Share Capital	1,50,000	1,70,000
Reserves	30,000	40,000
Creditors	40,000	60,000
Bank Loan	30,000	50,000

□ Comparative Balance Sheet

Particulars	2022 (₹)	2023 (₹)	Increase / (Decrease)	% Change
Assets				
Land & Building	1,00,000	1,20,000	+20,000	20%
Plant & Machinery	60,000	80,000	+20,000	33.3%
Stock	40,000	50,000	+10,000	25%
Debtors	30,000	45,000	+15,000	50%
Cash	20,000	25,000	+5,000	25%
Total Assets	2,50,000	3,20,000	+70,000	28%
Liabilities & Capital				
Share Capital	1,50,000	1,70,000	+20,000	13.3%
Reserves	30,000	40,000	+10,000	33.3%
Creditors	40,000	60,000	+20,000	50%
Bank Loan	30,000	50,000	+20,000	66.7%
Total	2,50,000	3,20,000	+70,000	28%

✓ Illustration 2

Balance Sheet as on 31st March

Particulars	2023 (₹)	2024 (₹)
Building	2,00,000	1,80,000
Furniture	50,000	70,000
Stock	60,000	90,000
Debtors	40,000	35,000
Cash	30,000	45,000

Management Accounting

Capital	2,50,000	2,60,000
Creditors	80,000	1,00,000
Bills Payable	50,000	60,000

❑ Comparative Balance Sheet

Particulars	2023 (₹)	2024 (₹)	Increase / (Decrease)	% Change
Assets				
Building	2,00,000	1,80,000	(20,000)	(10%)
Furniture	50,000	70,000	+20,000	40%
Stock	60,000	90,000	+30,000	50%
Debtors	40,000	35,000	(5,000)	(12.5%)
Cash	30,000	45,000	+15,000	50%
Total Assets	3,80,000	4,20,000	+40,000	10.5%
Liabilities				
Capital	2,50,000	2,60,000	+10,000	4%
Creditors	80,000	1,00,000	+20,000	25%
Bills Payable	50,000	60,000	+10,000	20%
Total	3,80,000	4,20,000	+40,000	10.5%

📌 Prepare Schedule of Changes in Working Capital

- List all Current Assets and Current Liabilities.
- Compare values of both years.
- Calculate increase or decrease.

Rules:

Item	Increase	Decrease
Current Assets	Increase in WC	Decrease in WC
Current Liabilities	Decrease in WC	Increase in WC

📌 Calculate Net Change in Working Capital

- If total increase in CA > increase in CL → Increase in WC
- If increase in CL > increase in CA → Decrease in WC

❑ Increase in WC = Application of Funds

❑ Decrease in WC = Source of Funds

Schedule of Changes in Working Capital

A **Schedule of Changes in Working Capital** shows the increase or decrease in **current assets** and **current liabilities** between two balance sheet dates. It is prepared before making a Fund Flow Statement.

□ Steps to Prepare

1. Take **only Current Assets (CA)** and **Current Liabilities (CL)**.
2. Place figures of two years side by side.
3. Calculate Increase or Decrease. 4.
 - Increase in Current Asset → **Increase in Working Capital**
 - Decrease in Current Asset → **Decrease in Working Capital**
 - Increase in Current Liability → **Decrease in Working Capital**
 - Decrease in Current Liability → **Increase in Working Capital**
5. Find Net Increase or Decrease.

✓ Illustration

Balance Sheet Extract

Particulars	2022 (₹)	2023 (₹)	
Stock	50,000	70,000	
Debtors	40,000	35,000	
Bills Receivable	20,000	30,000	
Cash	10,000	25,000	
Creditors	30,000	45,000	
Bills Payable	15,000	10,000	
Outstanding Expenses	5,000	8,000	

□ Schedule of Changes in Working Capital

Particulars	2022 (₹)	2023 (₹)	Increase (₹)	Decrease (₹)
Current Assets				
Stock	50,000	70,000	20,000	–
Debtors	40,000	35,000	–	5,000

Management Accounting

Bills Receivable	20,000	30,000	10,000	–
Cash	10,000	25,000	15,000	–
Total CA	1,20,000	1,60,000	45,000	5,000
Current Liabilities				
Creditors	30,000	45,000	–	15,000
Bills Payable	15,000	10,000	5,000	–
Outstanding Expenses	5,000	8,000	–	3,000
Total CL	50,000	63,000	5,000	18,000

□ Calculation of Working Capital

Particulars	2022 (₹)	2023 (₹)
Total Current Assets	1,20,000	1,60,000
Total Current Liabilities	50,000	63,000
Working Capital	70,000	97,000
□ Net Increase in Working Capital = ₹27,000		

Schedule of Changes in Working Capital

Particulars	Increase (₹)	Decrease (₹)
Total Increase	50,000	
Total Decrease		23,000
Net Increase in Working Capital	27,000	

Illustration 1

Extract of Balance Sheet

Particulars	2023 (₹)	2024 (₹)
Stock	60,000	80,000
Debtors	50,000	45,000
Bills Receivable	20,000	25,000

Management Accounting

Cash	15,000	20,000
Creditors	40,000	55,000
Bills Payable	25,000	20,000
Outstanding Expenses	10,000	15,000

☐ Schedule of Changes in Working Capital

Particulars	2023 (₹)	2024 (₹)	Increase (₹)	Decrease (₹)	
Current Assets					
Stock	60,000	80,000	20,000	–	
Debtors	50,000	45,000	–	5,000	
Bills Receivable	20,000	25,000	5,000	–	
Cash	15,000	20,000	5,000	–	
Total CA	1,45,000	1,70,000	30,000	5,000	
Current Liabilities					
Creditors	40,000	55,000	–	15,000	
Bills Payable	25,000	20,000	5,000	–	
Outstanding Expenses	10,000	15,000	–	5,000	
Total CL	75,000	90,000	5,000	20,000	

☐ Working Capital Calculation

2023 (₹)	2024 (₹)	
Total Current Assets	1,45,000	1,70,000
Total Current Liabilities	75,000	90,000
Working Capital	70,000	80,000

☐ Net Increase in Working Capital = ₹10,000

Management Accounting

✓ Illustration 2 (Net Decrease Case)

Extract of Balance Sheet

Particulars	2022 (₹)	2023 (₹)
Stock	90,000	75,000
Debtors	60,000	50,000
Cash	25,000	20,000
Prepaid Expenses	10,000	5,000
Creditors	50,000	65,000
Bills Payable	20,000	30,000
Outstanding Expenses	15,000	20,000

□ Schedule of Changes in Working Capital

Particulars	2022 (₹)	2023 (₹)	Increase (₹)	Decrease (₹)
Current Assets				
Stock	90,000	75,000	–	15,000
Debtors	60,000	50,000	–	10,000
Cash	25,000	20,000	–	5,000
Prepaid Expenses	10,000	5,000	–	5,000
Total CA	1,85,000	1,50,000	–	35,000
Current Liabilities				
Creditors	50,000	65,000	–	15,000
Bills Payable	20,000	30,000	–	10,000
Outstanding Expenses	15,000	20,000	–	5,000
Total CL	85,000	1,15,000	–	30,000

□ Working Capital Calculation

2022 (₹)	2023 (₹)	
Total Current Assets	1,85,000	1,50,000
Total Current Liabilities	85,000	1,15,000
Working Capital	1,00,000	35,000

□ Net Decrease in Working Capital = ₹65,000

4 Calculate Funds from Operations

Funds from Operations means the funds generated from normal business operations. It is calculated by adjusting **Net Profit** for non-cash and non-operating items.

✓ Method 1: Adjusted Profit & Loss Method

Illustration 1

Given:

- Net Profit as per P&L A/c = ₹80,000
- Depreciation = ₹20,000
- Loss on Sale of Machinery = ₹5,000
- Goodwill Written Off = ₹10,000
- Profit on Sale of Land = ₹8,000
- Dividend Received = ₹7,000

□ Calculation of Funds from Operations

Add (Non-cash & Non-operating Losses):

- Depreciation = 20,000
- Loss on Sale of Machinery = 5,000
- Goodwill Written Off = 10,000

Total Additions = ₹35,000

Less (Non-operating Income):

- Profit on Sale of Land = 8,000
- Dividend Received = 7,000

Total Deductions = ₹15,000

□ Funds from Operations

Funds	from			Operations
= Net Profit + Additions – Deductions				
=	80,000	+	35,000	– 15,000
= ₹1,00,000				

✓ Illustration 2 (Using Opening & Closing P&L Balance)

Given:

Particulars	₹

Opening P&L Balance	50,000
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Management Accounting

Closing P&L Balance	90,000
Transfer to Reserve	20,000
Proposed Dividend	15,000
Provision for Tax	10,000
Depreciation	25,000
Profit on Sale of Asset	5,000

☐ **Adjusted P&L Account (Working)**

Closing	Balance	=	90,000
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Add: Transfers & Appropriations

- Transfer to Reserve = 20,000
- Proposed Dividend = 15,000
- Provision for Tax = 10,000

Add: Non-cash Expense

- Depreciation = 25,000

Less: Non-operating Income

- Profit on Sale of Asset = 5,000

Total Adjusted Profit =

$$90,000 + 20,000 + 15,000 + 10,000 + 25,000 - 5,000 = 1,55,000$$

Funds from Operations

= Adjusted Profit – Opening Balance

=	1,55,000	–	50,000
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= ₹1,05,000

5 Identify Other Sources of Funds

- Issue of shares
- Issue of debentures
- Long-term borrowings
- Sale of fixed assets

Other Sources of Funds (Fund Flow Statement)

In a **Fund Flow Statement**, apart from **Funds from Operations**, there are several **other sources of funds**. These are transactions that increase working capital or bring long-term funds into the business.

✓ Major Other Sources of Funds

❶ Issue of Share Capital

When a company issues equity or preference shares, it receives cash.

Example:

Issue of Shares = ₹2,00,000 → Source of Funds

❷ Issue of Debentures

Money raised through debentures is a long-term source.

Example:

Issue of Debentures = ₹1,50,000 → Source

❸ Raising Long-term Loans

Loans taken from banks or financial institutions.

Example:

Bank Loan raised = ₹80,000 → Source

❹ Sale of Fixed Assets

Sale of machinery, land, building, furniture etc.

Only the **actual sale proceeds** are treated as source.

Example:

Machinery sold for ₹50,000 → Source of ₹50,000

❺ Non-Operating Income

Such as:

- Dividend Received
- Interest Received
- Refund of Tax

(If not included in Funds from Operations)

6 Decrease in Working Capital

If working capital decreases, it is treated as a source of funds.

□ Illustration

Given:

- Funds from Operations = ₹1,00,000
- Issue of Shares = ₹2,00,000
- Sale of Machinery = ₹40,000
- Bank Loan taken = ₹60,000
- Decrease in Working Capital = ₹20,000

□ Statement of Sources of Funds

Particulars	Amount
Funds from Operations	1,00,000
Issue of Shares	2,00,000
Sale of Machinery	40,000
Bank Loan	60,000
Decrease in Working Capital	20,000
Total Sources of Funds	4,20,000

6 Identify Applications of Funds

- Purchase of fixed assets
- Repayment of loans
- Redemption of debentures
- Dividend paid
- Tax paid

Applications of Funds (Fund Flow Statement)

Applications of Funds mean the **uses of funds** by a business.

These transactions either:

- Decrease working capital, or
- Use long-term funds for business purposes.

✓ Major Applications of Funds 1

Purchase of Fixed Assets

Purchase of land, building, plant, machinery, furniture, etc.

Management Accounting

- ✓ Full purchase amount is treated as application.

Example:

Machinery purchased = ₹1,50,000 → Application

2 Redemption of Preference Shares

Payment made to redeem shares.

Example:

Preference Shares redeemed = ₹1,00,000 → Application

3 Redemption of Debentures

Payment of debentures is application.

4 Repayment of Long-term Loans

Loan repayment reduces long-term funds.

Example:

Bank Loan repaid = ₹80,000 → Application

5 Payment of Dividend

Dividend paid is application of funds.

6 Payment of Tax

Income tax paid is treated as application.

7 Increase in Working Capital

If working capital increases, it is treated as application of funds.

□ Illustration

Given:

- Purchase of Building = ₹2,00,000
- Purchase of Machinery = ₹1,20,000
- Loan Repaid = ₹60,000
- Dividend Paid = ₹40,000
- Increase in Working Capital = ₹30,000

Management Accounting

□ Statement of Applications of Funds

Particulars	Amount (₹)
Purchase of Building	2,00,000
Purchase of Machinery	1,20,000
Loan Repaid	60,000
Dividend Paid	40,000
Increase in Working Capital	30,000
Total Applications of Funds	4,50,000

7 Prepare Funds Flow Statement

- List all Sources on one side
- List all Applications on the other side
- Total must tally

Illustration 1 (Simple Type)

□ Balance Sheet Extract

Particulars	2023 (₹)	2024 (₹)
Share Capital	3,00,000	4,00,000
General Reserve	50,000	70,000
P&L A/c	40,000	80,000
10% Debentures	1,00,000	80,000
Creditors	60,000	75,000
Building	2,00,000	2,80,000
Machinery	1,20,000	1,00,000
Stock	70,000	90,000
Debtors	50,000	60,000
Cash	10,000	15,000

Additional Information:

- Depreciation on Machinery = ₹20,000

□ Step 1: Schedule of Changes in Working Capital

Particulars	2023	2024	Increase	Decrease
Stock	70,000	90,000	20,000	–
Debtors	50,000	60,000	10,000	–

Management Accounting

Cash	10,000	15,000	5,000	–	
Creditors	60,000	75,000	–	15,000	
Increase	in		CA	=	35,000
Increase in CL = 15,000					

□ **Net Increase in Working Capital = ₹20,000**

(Increase in WC = Application)

□ Step 2: Funds from Operations

Increase in P&L = 80,000 – 40,000 = 40,000

Add: Transfer to Reserve = 20,000

Add: Depreciation = 20,000

□ **Funds from Operations = ₹80,000**

□ Step 3: Funds Flow Statement

□ Statement of Sources and Applications of Funds

Sources	Amount
Issue of Share Capital	1,00,000
Funds from Operations	80,000
Total Sources	1,80,000
Applications	Amount
Purchase of Building	80,000
Redemption of Debentures	20,000
Increase in Working Capital	20,000
Total Applications	1,20,000

(Balance amount assumed adjusted through machinery sale/purchase)

✓ Illustration 2 (With Asset Sale)

Additional Information:

- Machinery costing ₹40,000 (Accumulated Depreciation ₹10,000) sold for ₹25,000
- Depreciation = ₹15,000

□ Funds from Operations

Assume Net Profit = ₹60,000

Management Accounting

Add:

- Depreciation = 15,000
 - Loss on Sale of Machinery (30,000 – 25,000) = 5,000
- Funds from Operations = 80,000

□ Funds Flow Statement

Sources of Funds

Particulars	₹
Funds from Operations	80,000
Sale of Machinery	25,000
Issue of Shares	1,50,000
Total Sources	2,55,000

Applications of Funds

Illustration 3 (With Provision for Tax & Dividend)

Particulars	Rs.
Purchase of Building	1,20,000
Dividend Paid	40,000
Repayment of Loan	50,000
Increase in Working Capital	45,000
Total Applications	2,55,000

□ Balance Sheet Extract

Particulars	2022 (Rs)	2023 (Rs)
Share Capital	4,00,000	5,00,000
General Reserve	60,000	80,000
P&L A/c	50,000	90,000
Provision for Tax	40,000	50,000
Proposed Dividend	30,000	40,000
Creditors	70,000	90,000
Building	3,00,000	3,80,000

Management Accounting

Machinery	1,50,000	1,30,000
Stock	80,000	1,00,000
Debtors	60,000	70,000
Cash	20,000	30,000

Additional Information:

- Depreciation on Machinery = ₹20,000
- Tax paid during year = ₹35,000
- Dividend paid during year = ₹30,000

☐ Step 1: Schedule of Changes in Working Capital

Particulars	Increase	Decrease
Stock	20,000	–
Debtors	10,000	–
Cash	10,000	–
Creditors	–	20,000

Particulars	Increase	Decrease
Stock	20,000	–
Debtors	10,000	–
Cash	10,000	–
Creditors	–	20,000
Total	Increase	= 40,000
Total Decrease = 20,000		

☐ **Net Increase in Working Capital = ₹20,000 (Application)**

Schedule of Changes in Working Capital

A **Schedule of Changes in Working Capital** shows the increase or decrease in **Current Assets (CA)** and **Current Liabilities (CL)** between two balance sheet dates.

Working Capital = Current Assets – Current Liabilities

✓ Illustration 1 (Net Increase in Working Capital)

☐ **Balance Sheet Extract**

Management Accounting

Particulars	2023 (Rs)	2024 (Rs)
Stock	80,000	1,00,000
Debtors	60,000	75,000
Bills Receivable	20,000	30,000
Cash	15,000	25,000
Creditors	50,000	65,000
Bills Payable	30,000	20,000
Outstanding Expenses	10,000	15,000

□ Schedule of Changes in Working Capital

Particulars	2023 (₹)	2024 (₹)	Increase (₹)	Decrease (₹)
Current Assets				
Stock	80,000	1,00,000	20,000	–
Debtors	60,000	75,000	15,000	–
Bills Receivable	20,000	30,000	10,000	–
Cash	15,000	25,000	10,000	–
Total CA	1,75,000	2,30,000	55,000	–
Current Liabilities				
Creditors	50,000	65,000	–	15,000
Bills Payable	30,000	20,000	10,000	–
Outstanding Expenses	10,000	15,000	–	5,000
Total CL	90,000	1,00,000	10,000	20,000

□ Working Capital Calculation

2023 (Rs)	2024 (Rs)	
Total Current Assets	1,75,000	2,30,000
Total Current Liabilities	90,000	1,00,000
Working Capital	85,000	1,30,000

□ **Net Increase in Working Capital = Rs45,000** (Increase in WC = Application of Funds)

Management Accounting

✓ Illustration 2 (Net Decrease in Working Capital)

☐ **Balance Sheet Extract**

Particulars	2022 (Rs)	2023 (Rs)
Stock	1,00,000	80,000
Debtors	70,000	60,000
Cash	40,000	25,000
Prepaid Expenses	20,000	10,000
Creditors	60,000	75,000
Bills Payable	30,000	45,000
Outstanding Expenses	20,000	25,000

☐ **Schedule of Changes in Working Capital**

Particulars	Increase (Rs)	Decrease (Rs)
Decrease in Stock	–	20,000
Decrease in Debtors	–	10,000
Decrease in Cash	–	15,000
Decrease in Prepaid Expenses	–	10,000
Increase in Creditors	–	15,000
Increase in Bills Payable	–	15,000
Increase in Outstanding Expenses		– 5,000
Total Decrease = Rs 90,000		

□ Working Capital

	2022 (Rs)	2023 (Rs)
Total CA	2,30,000	1,75,000
Total CL	1,10,000	1,45,000
Working Capital	1,20,000	30,000

□ Net Decrease in Working Capital = ₹90,000

(Decrease in WC = Source of Funds)

□ Step 2: Funds from Operations

Increase in P&L = 40,000

Add: Transfer to Reserve = 20,000

Add: Depreciation = 20,000

□ Funds from Operations = ₹80,000

Management Accounting

Adjusted Profit and Loss Account

(For Calculating **Funds from Operations**)

An **Adjusted Profit and Loss Account** is prepared to find **Funds from Operations** in a Fund Flow Statement.

It adjusts the P&L balance for:

- Non-cash expenses
- Non-operating incomes
- Appropriations of profit

✓Format of Adjusted Profit & Loss Account

Adjusted Profit & Loss A/c

Dr.	Rs	Cr.	Rs
To Depreciation		By Balance b/d (Opening)	
To Goodwill Written Off		By Funds from Operations (Balancing Figure)	
To Loss on Sale of Asset			
To Transfer to Reserve			
To Proposed Dividend			
To Provision for Tax			
To Balance c/d (Closing)			

☐ **Funds from Operations is the balancing figure on the credit side.**

✓Illustration 1

Given:

- Opening P&L Balance = ₹40,000
- Closing P&L Balance = ₹90,000
- Depreciation = ₹20,000

Management Accounting

- Goodwill Written Off = ₹10,000
- Transfer to General Reserve = ₹15,000
- Proposed Dividend = ₹25,000
- Provision for Tax = ₹20,000

□ Adjusted Profit & Loss Account

Dr.	Rs	Cr.	Rs
To Depreciation	20,000	By Balance b/d	40,000
To Goodwill Written Off	10,000	By Funds from Operations	1,40,000
To Transfer to Reserve	15,000		
To Proposed Dividend	25,000		
To Provision for Tax	20,000		
To Balance c/d	90,000		
Total	1,80,000	Total	1,80,000

□ Funds from Operations = ₹1,40,000

✓ Illustration 2 (With Profit on Sale of Asset)

Given:

- Opening P&L = Rs50,000
- Closing P&L = Rs1,00,000
- Depreciation = Rs30,000
- Loss on Sale of Machinery = Rs5,000
- Profit on Sale of Land = Rs10,000
- Transfer to Reserve = ₹20,000

□ Adjusted Profit & Loss Account

Dr.	Rs	Cr.	Rs
To Depreciation	30,000	By Balance b/d	50,000

Management Accounting

To Loss on Sale	5,000	By Profit on Sale of	10,000
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Management Accounting

		Land	
To Transfer to Reserve	20,000	By Funds from Operations	1,15,000
To Balance c/d	1,00,000		
Total	1,55,000	Total	1,55,000

☐ **Funds from Operations = ₹1,15,000**

☐ Step 3: Funds Flow Statement

☐ Sources of Funds

Particulars	₹	
Issue of Share Capital	1,00,000	
Funds from Operations	80,000	
Total Sources	1,80,000	

☐ Applications of Funds

Particulars	Rs
Purchase of Building	80,000
Tax Paid	35,000
Dividend Paid	30,000
Increase in Working Capital	20,000
Total Applications	1,65,000

(Balance assumed adjusted)

✓ Illustration 4 (With Sale of Fixed Asset & Loss)

☐ Given:

- Net Profit = ₹1,00,000
- Depreciation = ₹30,000
- Goodwill written off = ₹20,000
- Loss on Sale of Machinery = ₹10,000
- Profit on Sale of Land = ₹15,000

☐ Funds from Operations

Add:

- Depreciation = 30,000

Management Accounting

- Goodwill Written Off = 20,000
- Loss on Sale = 10,000

Total Add = 60,000

Less:

- Profit on Sale of Land = 15,000

Funds		from		Operations
=	1,00,000	+	60,000	- 15,000
=	Rs1,45,000			

□ Funds Flow Statement

Sources

Particulars	Rs
Funds from Operations	1,45,000
Sale of Land	50,000
Issue of Debentures	1,00,000
Total	2,95,000

Applications

Particulars	Rs
Purchase of Plant	1,50,000
Redemption of Shares	75,000
Increase in Working Capital	70,000
Total	2,95,000

To ascertain flow of funds, we analyze changes in working capital, identify sources and applications, and prepare a Funds Flow Statement. This process helps understand financial movements between two accounting periods.

Illustration 1 (Basic Balance Sheet Problem)

□ Balance Sheets

Liabilities	2023 (Rs)	2024 (Rs)	Assets	2023 (Rs)	2024 (Rs)
Share Capital	4,00,000	5,00,000	Building	3,00,000	3,80,000
General Reserve	50,000	70,000	Machinery	2,00,000	1,80,000

Management Accounting

P&L A/c	40,000	80,000	Stock	1,00,000	1,20,000
10% Debentures	1,50,000	1,00,000	Debtors	80,000	90,000
Creditors	70,000	90,000	Cash	30,000	40,000

Additional Information:

- Depreciation on Machinery = Rs20,000
- Dividend Paid = Rs30,000

□ Step 1: Schedule of Changes in Working Capital

Particulars	Increase	Decrease
Stock	20,000	–
Debtors	10,000	–
Cash	10,000	–
Creditors	–	20,000

□ Net Increase in Working Capital = Rs20,000 (Application)

□ Step 2: Funds from Operations

Increase	in	P&L	=	40,000
Add:	Transfer	to	Reserve	= 20,000
Add:	Dividend	Paid	=	30,000
Add: Depreciation = 20,000				

□ Funds from Operations = Rs1,10,000

□ Step 3: Fund Flow Statement

□ Sources of Funds

Particulars	Rs
Issue of Share Capital	1,00,000
Funds from Operations	1,10,000
Total	2,10,000

□ Applications of Funds

Particulars	Rs
Purchase of Building	80,000
Redemption of Debentures	50,000

Management Accounting

Dividend Paid	30,000
Increase in Working Capital	20,000
Total	1,80,000

✓ Illustration 2 (With Sale of Asset)

□ Balance Sheets

Liabilities	2022 (Rs)	2023 (Rs)	Assets	2022 (Rs)	2023 (Rs)
Share Capital	3,00,000	3,50,000	Land	2,50,000	2,00,000
P&L A/c	60,000	90,000	Plant	2,00,000	2,20,000
Bank Loan	1,00,000	80,000	Stock	90,000	1,10,000
Creditors	70,000	85,000	Debtors	60,000	75,000
			Cash	30,000	50,000

Additional Information:

- Land sold for Rs60,000
- Depreciation on Plant = Rs30,000
- Dividend Paid = Rs20,000

□ Step 1: Working Capital Schedule

Increase in CA = 55,000

Increase in CL = 15,000

□ Net Increase in Working Capital = Rs40,000

□ Step 2: Funds from Operations

Increase in P&L = 30,000

Add: Dividend Paid = 20,000

Add: Depreciation = 30,000

□ Funds from Operations = Rs80,000

□ Step 3: Fund Flow Statement

□ Sources

Particulars	Rs
-------------	----

Management Accounting

Funds from Operations	80,000
Sale of Land	60,000
Issue of Share Capital	50,000
Total	1,90,000

☐ Applications

Particulars	Rs
Purchase of Plant	50,000
Repayment of Bank Loan	20,000
Dividend Paid	20,000
Increase in Working Capital	40,000
Total	1,30,000

Cash Flow Statement: Meaning – Advantages - Limitations - Preparation of Cash Flow Statement as per AS 3 -Cash Flow from Operating, Financing and investing activities

Cash Flow Statement – Meaning

A **Cash Flow Statement** is a financial statement that shows the **inflows and outflows of cash and cash equivalents** during a specific accounting period.

It explains how cash is generated and used in a business.

✓ Simple Meaning

It is a statement that shows:

- ☐ Where cash comes from
- ☐ Where cash is spent
- ☐ Net increase or decrease in cash

☐ Definition

According to accounting standards (such as **AS-3 / IAS-7**):

A Cash Flow Statement summarizes the cash receipts and cash payments during an accounting period under operating, investing, and financing activities.

Objectives of Cash Flow Statement

The **Cash Flow Statement** is prepared to show the movement of cash and cash equivalents during an accounting period. Its objectives focus on understanding the liquidity and financial flexibility of a business.

To Show Cash Inflows and Outflows

It provides detailed information about:

- Cash received (inflows)

Management Accounting

- Cash paid (outflows)

This helps in understanding how cash is generated and used.

2 To Assess Liquidity Position

It helps determine whether the business has sufficient cash to:

- Meet short-term obligations
- Pay creditors and employees
- Handle unexpected expenses

3 To Analyze Operating Efficiency

It shows how much cash is generated from **operating activities**, indicating:

- Core business performance
- Ability to sustain operations

4 To Understand Financial Flexibility

It helps evaluate the company's ability to:

- Raise funds
- Repay loans
- Pay dividends
- Invest in new projects

5 To Explain Changes in Cash Balance

It explains the reasons for:

- Increase in cash
- Decrease in cash

Between two accounting periods.

6 To Help in Planning and Decision-Making

Management can use it for:

- Cash budgeting
- Investment decisions
- Expansion planning

In Simple Words

The main objective of a Cash Flow Statement is to provide useful information about cash movements to help users assess liquidity, solvency, and financial performance.

□ Why It Is Important

The **Cash Flow Statement** is important because it shows the **actual movement of cash** in a business. A company may show profit in the Income Statement but still face cash shortages. This statement helps understand the real cash position.

📌 1 Shows Liquidity Position

It helps to know whether the business has enough cash to:

- Pay suppliers
- Pay salaries
- Pay loans
- Meet daily expenses

□ Indicates short-term financial strength.

📌 2 Helps in Cash Planning & Budgeting

Management can:

- Plan future payments
- Control unnecessary cash outflows
- Avoid cash shortages

📌 3 Explains Difference between Profit and Cash

A company may earn profit but not receive cash immediately (credit sales).

Cash Flow Statement explains:

- Why profit increased
- Why cash decreased

📌 4 Helps Investors and Creditors

Investors and lenders check:

- Ability to repay loans
- Dividend paying capacity
- Stability of cash flows

📌 5 Assists in Decision Making

Management can decide:

- Whether to expand business
- Whether to purchase new assets
- Whether to take loans

📌 6 Measures Operational Efficiency

Strong cash flow from operating activities indicates:

- Good business performance

- Strong internal cash generation

In Simple Words

The Cash Flow Statement is important because it shows the real cash position of a business and helps in financial planning and decision-making.

Main Components of Cash Flow Statement

Main Components of Cash Flow Statement

A **Cash Flow Statement** is divided into **three main components** based on the nature of activities:

1 Operating Activities

These are cash flows from the **main business operations** of the company.

They relate to day-to-day revenue-generating activities.

Examples:

- Cash received from customers
- Cash paid to suppliers
- Salaries and wages paid
- Rent paid
- Income tax paid

Importance:

Operating cash flow shows whether the business can generate sufficient cash from its core activities.

2 Investing Activities

These include cash flows related to **purchase and sale of long-term assets** and investments.

Examples:

- Purchase of machinery
- Purchase of land/building
- Sale of fixed assets
- Purchase or sale of investments
- Interest or dividend received (in some cases)

Importance:

Shows how the company invests its funds for future growth.

3 Financing Activities

These include cash flows related to **capital and long-term financing** of the business.

Management Accounting

□ Examples:

- Issue of shares
- Issue of debentures
- Taking or repayment of loans
- Dividend paid
- Interest paid (in many cases)

□ Importance:

Shows how the business raises funds and repays investors and lenders.

□ Summary Table

Activity Type	Related To	Examples
Operating	Daily business operations	Cash from customers, salaries
Investing	Long-term assets & investments	Purchase of machinery
Financing	Capital & long-term liabilities	Issue of shares, loan repayment

□ Key Formula

Net Increase / Decrease in Cash
= Operating Cash Flow

- Investing Cash Flow
- Financing Cash Flow

□ In Short

The Cash Flow Statement shows the movement of cash during the year and helps understand how the business manages its cash resources.

Preparation of Cash Flow Statement as per AS–3

Cash Flow from Operating Activities (Indirect Method)

As per **Accounting Standard – 3 (AS–3)**, cash flows are classified into:

- 1 Operating Activities
- 2 Investing Activities
- 3 Financing Activities

Here we focus on **Cash Flow from Operating Activities (Indirect Method)** — the most commonly used method in exams.

Management Accounting

✓ Meaning of Operating Activities

Operating activities are the **principal revenue-generating activities** of the business.

Examples:

- Cash from customers
- Cash paid to suppliers
- Salary paid
- Tax paid

✓ Indirect Method (AS-3)

Under this method:

We start with **Net Profit before Tax and Extraordinary Items** and adjust for:

- Non-cash expenses
- Non-operating items
- Changes in working capital

□ Format (Indirect Method)

Cash Flow from Operating Activities

Net	Profit	before	Tax	and	Extraordinary	Items
-----	--------	--------	-----	-----	---------------	-------

Add:

- Depreciation
- Amortization
- Loss on sale of asset
- Interest expense

Less:

- Profit on sale of asset
- Interest income
- Dividend income

= Operating Profit before Working Capital Changes

Adjust for:

- Increase / Decrease in Current Assets
- Increase / Decrease in Current Liabilities

= Cash Generated from Operations

Less:

- Income Tax Paid

= Net Cash Flow from Operating Activities

Management Accounting

✓ Illustration

Given:

- Net Profit before Tax = ₹1,50,000
- Depreciation = ₹30,000
- Loss on Sale of Machinery = ₹10,000
- Profit on Sale of Land = ₹15,000
- Increase in Debtors = ₹20,000
- Decrease in Stock = ₹10,000
- Increase in Creditors = ₹15,000
- Income Tax Paid = ₹25,000

□ Cash Flow from Operating Activities

Net Profit before Tax = 1,50,000 Add:

- Depreciation = 30,000
- Loss on Sale = 10,000

Less:

- Profit on Sale of Land = (15,000)

Operating Profit before Working Capital Changes
= 1,75,000

Adjust for Working Capital Changes:

- Increase in Debtors = (20,000)
- Decrease in Stock = +10,000
- Increase in Creditors = +15,000

Cash Generated from Operations
= 1,80,000

Less: Income Tax Paid = (25,000)

□ Net Cash from Operating Activities = Rs1,55,000

□ Important AS-3

- | | | | | | | | |
|---|--------|----------|------|-----|---------------|--------|----------|
| ✓ | Always | start | with | Net | Profit | before | Tax |
| ✓ | Add | non-cash | | & | non-operating | | expenses |
| ✓ | | Deduct | | | non-operating | | incomes |

Management Accounting

✓ Adjust working capital carefully

✓ Deduct tax paid separately

Illustration 1 (With Provision for Tax & Interest)

Given:

- Net Profit before Tax = Rs2,00,000
- Depreciation = Rs 40,000
- Amortisation of Goodwill = Rs 20,000
- Profit on Sale of Machinery = Rs 15,000
- Interest on Debentures Paid = Rs 10,000
- Increase in Stock = Rs 25,000
- Decrease in Debtors = Rs 20,000
- Increase in Creditors = Rs 15,000
- Income Tax Paid = Rs 50,000

□ Cash Flow from Operating Activities

Net Profit before Tax = 2,00,000

Add:

- Depreciation = 40,000
- Amortisation of Goodwill = 20,000
- Interest Paid = 10,000

Less:

- Profit on Sale of Machinery = (15,000)

Operating Profit before Working Capital Changes

= 2,55,000

Adjustments for Working Capital:

- Increase in Stock = (25,000)
- Decrease in Debtors = +20,000
- Increase in Creditors = +15,000

Cash Generated from Operations

= 2,65,000

Less: Income Tax Paid = (50,000)

□ **Net Cash from Operating Activities = ₹2,15,000**

Management Accounting

✓ Illustration 2 (With Loss on Sale & Prepaid Expenses)

Given:

- Net Profit before Tax = ₹1,80,000
- Depreciation = ₹35,000
- Loss on Sale of Equipment = ₹10,000
- Dividend Received = ₹12,000
- Decrease in Stock = ₹15,000
- Increase in Debtors = ₹30,000
- Decrease in Prepaid Expenses = ₹8,000
- Decrease in Creditors = ₹20,000
- Tax Paid = ₹45,000

□ Cash Flow from Operating Activities

Net Profit before Tax = 1,80,000

Add:

- Depreciation = 35,000
- Loss on Sale of Equipment = 10,000

Less:

- Dividend Received = (12,000)

Operating Profit before Working Capital Changes

= 2,13,000

Working Capital Adjustments:

- Decrease in Stock = +15,000
- Increase in Debtors = (30,000)
- Decrease in Prepaid Expenses = +8,000
- Decrease in Creditors = (20,000)

Cash Generated from Operations

= 1,86,000

Less: Tax Paid = (45,000)

□ Net Cash from Operating Activities = Rs 1,41,000

□ Quick Working Capital Rules

Change	Effect on Cash
Increase in Current Asset	Increase in Cash
Decrease in Current Asset	Decrease in Cash
Increase in Current Liability	Increase in Cash
Decrease in Current Liability	Decrease in Cash

Cash Flow Statement as per AS-3

Illustrations (Indirect Method)

As per **AS-3**, Cash Flow Statement is divided into:

1	Operating	Activities
2	Investing	Activities
3	Financing	Activities

Illustrations.

✓ Illustration 1 (Comprehensive Problem)

Given:

- Net Profit before Tax = Rs 2,50,000
- Depreciation = Rs 40,000
- Loss on Sale of Machinery = Rs 10,000
- Profit on Sale of Land = Rs 20,000
- Increase in Stock = Rs 30,000
- Decrease in Debtors = Rs 25,000
- Increase in Creditors = Rs 15,000
- Income Tax Paid = Rs 60,000
- Purchase of Machinery = Rs 1,20,000
- Sale of Land = Rs 80,000
- Issue of Shares = Rs 2,00,000
- Dividend Paid = Rs 50,000

□ Cash Flow Statement (AS-3)

□ A. Cash Flow from Operating Activities

Net Profit before Tax = 2,50,000 Add:

Management Accounting

- Depreciation = 40,000
- Loss on Sale = 10,000

Less:

- Profit on Sale of Land = (20,000)

Operating Profit before Working Capital Changes
= 2,80,000

Working Capital Changes:

- Increase in Stock = (30,000)
- Decrease in Debtors = +25,000
- Increase in Creditors = +15,000

Cash Generated from Operations
= 2,90,000

Less: Income Tax Paid = (60,000)

☐ **Net Cash from Operating Activities = Rs 2,30,000**

☐ B. Cash Flow from Investing Activities

- Purchase of Machinery = (1,20,000)
- Sale of Land = +80,000

☐ **Net Cash used in Investing Activities = (Rs 40,000)**

☐ C. Cash Flow from Financing Activities

- Issue of Shares = +2,00,000
- Dividend Paid = (50,000)

☐ **Net Cash from Financing Activities = Rs 1,50,000**

☐ Net Increase in Cash

= 2,30,000 – 40,000 + 1,50,000
= Rs 3,40,000

✓ Illustration 2 (With Interest & Tax)

Given:

- Net Profit before Tax = Rs 3,00,000
- Depreciation = Rs 50,000
- Amortisation of Goodwill = Rs 20,000

Management Accounting

- Interest Paid = Rs 15,000
- Dividend Received = Rs 10,000
- Increase in Debtors = Rs 40,000
- Decrease in Stock = Rs 20,000
- Decrease in Creditors = Rs 25,000
- Tax Paid = Rs 80,000
- Purchase of Building = Rs 2,00,000
- Issue of Debentures = Rs 1,50,000
- Loan Repaid = Rs 60,000

☐ Cash Flow Statement

☐ Operating Activities

Net Profit before Tax = 3,00,000 Add:

- Depreciation = 50,000
- Amortisation = 20,000
- Interest Paid = 15,000

Less:

- Dividend Received = (10,000)

Operating	Profit	before	WC	Changes
= 3,75,000				

WC Adjustments:

- Increase in Debtors = (40,000)
- Decrease in Stock = +20,000
- Decrease in Creditors = (25,000)

Cash Generated = 3,30,000

Less Tax Paid = (80,000)

☐ **Net Cash from Operating Activities = Rs 2,50,000**

☐ Investing Activities

- Purchase of Building = (2,00,000)

☐ **Net Cash used in Investing = (Rs 2,00,000)**

☐ Financing Activities

Management Accounting

- Issue of Debentures = +1,50,000
- Loan Repaid = (60,000)

☐ **Net Cash from Financing = Rs 90,000**

☐ **Net Increase in Cash**

= 2,50,000 – 2,00,000 + 90,000
 = Rs **1,40,000**

☐

- ✓ Start with Net Profit before Tax
- ✓ Add non-cash & non-operating expenses
- ✓ Deduct non-operating incomes
- ✓ Adjust working capital carefully
- ✓ Show three sections clearly

Illustration 1

Given:

- Net Profit before Tax = Rs2,00,000
- Depreciation = Rs30,000
- Loss on Sale of Machinery = Rs10,000
- Profit on Sale of Land = Rs15,000
- Increase in Debtors = Rs20,000
- Decrease in Stock = Rs10,000
- Increase in Creditors = Rs 25,000
- Income Tax Paid = Rs40,000
- Purchase of Machinery = Rs1,00,000
- Sale of Land = Rs50,000
- Issue of Shares = Rs1,50,000
- Dividend Paid = Rs30,000

Management Accounting

□ Cash Flow Statement (Tabular Form)

A. Cash Flow from Operating Activities

Particulars	Amount (Rs)
Net Profit before Tax	2,00,000
Add: Depreciation	30,000
Add: Loss on Sale	10,000
Less: Profit on Sale of Land	(15,000)
Operating Profit before WC Changes	2,25,000
Adjustments for Working Capital:	
Increase in Debtors	(20,000)
Decrease in Stock	10,000
Increase in Creditors	25,000
Cash Generated from Operations	2,40,000
Less: Income Tax Paid	(40,000)
Net Cash from Operating Activities (A)	2,00,000

B. Cash Flow from Investing Activities

Particulars	Amount (Rs)
Purchase of Machinery	(1,00,000)
Sale of Land	50,000
Net Cash used in Investing (B)	(50,000)

C. Cash Flow from Financing Activities

Particulars	Amount (Rs)
Issue of Shares	1,50,000
Dividend Paid	(30,000)
Net Cash from Financing (C)	1,20,000

□ Net Increase in Cash

=	A	+	B	+	C
=	2,00,000	-	50,000	+	1,20,000
=	₹2,70,000				

✓ Illustration 2 (With Interest & Goodwill)

Given:

- Net Profit before Tax = Rs3,00,000
- Depreciation = Rs50,000

Management Accounting

- Amortisation of Goodwill = Rs20,000
- Interest Paid = Rs15,000
- Dividend Received = Rs10,000
- Increase in Stock = Rs40,000
- Decrease in Debtors = Rs30,000
- Decrease in Creditors = Rs20,000
- Tax Paid = Rs70,000
- Purchase of Building = Rs2,00,000
- Issue of Debentures = Rs1,00,000
- Loan Repaid = Rs 60,000

□ Cash Flow Statement (Tabular Form)

A. Operating Activities

Particulars	Amount (Rs)
Net Profit before Tax	3,00,000
Add: Depreciation	50,000
Add: Amortisation	20,000
Add: Interest Paid	15,000
Less: Dividend Received	(10,000)
Operating Profit before WC Changes	3,75,000
Increase in Stock	(40,000)
Decrease in Debtors	30,000
Decrease in Creditors	(20,000)
Cash Generated from Operations	3,45,000
Less: Tax Paid	(70,000)
Net Cash from Operating Activities (A)	2,75,000

B. Investing Activities

Particulars	Amount (Rs)
Purchase of Building	(2,00,000)
Net Cash used in Investing (B)	(2,00,000)

C. Financing Activities

□ Net Increase in Cash

Particulars	Amount (Rs)
-------------	-------------

Management Accounting

Issue of Debentures	1,00,000
Loan Repaid	(60,000)
Net Cash from Financing (C)	40,000

= 2,75,000 – 2,00,000 + 40,000

= Rs1,15,000

Illustration

□ Balance Sheets (Extract)

Particulars	31-03-2023 (Rs)	31-03-2024 (Rs)
Equity & Liabilities		
Share Capital	5,00,000	6,00,000
General Reserve	1,00,000	1,50,000
Profit & Loss A/c	80,000	1,20,000
10% Debentures	2,00,000	1,50,000
Creditors	1,20,000	1,40,000
Outstanding Expenses	20,000	30,000
Provision for Tax	60,000	70,000
Assets		
Building	4,00,000	5,00,000
Machinery	3,00,000	2,80,000
Stock	1,50,000	1,70,000
Debtors	1,00,000	1,20,000
Cash	30,000	70,000

□ Additional Information

- Depreciation on Machinery = Rs40,000
- Building purchased for Rs1,00,000
- Debentures redeemed Rs50,000
- Tax paid during the year Rs50,000
- Dividend paid Rs60,000

□ Cash Flow Statement (As per AS–3)

□ A. Cash Flow from Operating Activities

Particulars	Amount (Rs)
Net Profit before Tax (Working Note)	1,50,000

Management Accounting

Add: Depreciation	40,000
Operating Profit before WC Changes	1,90,000
Increase in Stock	(20,000)
Increase in Debtors	(20,000)
Increase in Creditors	20,000
Increase in Outstanding Expenses	10,000
Cash Generated from Operations	1,80,000
Less: Tax Paid	(50,000)
Net Cash from Operating Activities (A)	1,30,000

□ B. Cash Flow from Investing Activities

Particulars	Amount (Rs)
Purchase of Building	(1,00,000)
Net Cash used in Investing (B)	(1,00,000)

□ C. Cash Flow from Financing Activities

Particulars	Amount (Rs)
Issue of Share Capital	1,00,000
Redemption of Debentures	(50,000)
Dividend Paid	(60,000)
Net Cash from Financing (C)	(10,000)

□ Net Increase in Cash

=	A	+	B	+	C
=	1,30,000	-	1,00,000	-	10,000
=	Rs20,000				

Opening Cash = Rs30,000

Closing Cash = Rs50,000

□ Working Note: Calculation of Net Profit before Tax

Closing P&L	=	1,20,000
Add: Dividend Paid	=	60,000
Add: Transfer to Reserve	=	50,000
Add: Provision for Tax (Current Year)	=	60,000
Adjusted Profit	=	2,90,000

Less: Opening P&L = 80,000

□ Net Profit before Tax = Rs1,50,000

Advantages & Limitations of Cash Flow Statement

The **Cash Flow Statement** is an important financial statement that shows the movement of cash during a period. While it is very useful, it also has certain limitations.

✓ Advantages of Cash Flow Statement

1 Shows Actual Cash Position

It reveals the real cash available in the business.

- ✓ Helps to know whether the company can pay its liabilities.

2 Helps in Liquidity Analysis

It shows the ability of the business to meet short-term obligations.

3 Explains Difference Between Profit and Cash

A company may earn profit but still face cash shortage. The Cash Flow Statement explains this difference clearly.

4 Useful for Financial Planning

Helps management in:

- Cash budgeting
- Planning future investments
- Controlling expenses

5 Assists Investors and Creditors

Investors and lenders can judge:

- Dividend paying capacity
- Loan repayment ability
- Financial stability

6 Shows Operational Efficiency

Positive cash flow from operating activities indicates strong business performance.

× Limitations of Cash Flow Statement

1 Ignores Non-Cash Transactions

It does not consider:

- Depreciation
- Credit sales
- Provision adjustments

2 Not a Substitute for Income Statement

It does not show:

- Profitability

Management Accounting

- Overall financial performance

3 Historical in Nature

It is based on past data and may not predict future cash flows accurately.

4 Can Be Misleading Alone

If analyzed without other financial statements, it may give incomplete information.

5 Does Not Show True Profit

It focuses only on cash, not on accrued income or expenses.

The Cash Flow Statement is very useful for understanding liquidity and cash management, but it should be used along with the Balance Sheet and Income Statement for complete financial analysis.

Difference between Cash Flow Statement and Fund Flow Statement

Both statements analyze financial movement, but they focus on **different concepts**.

□ Comparison Table

Basis	Cash Flow Statement	Fund Flow Statement
Meaning	Shows inflow and outflow of cash & cash equivalents	Shows movement of funds (working capital)
Focus	Cash position	Working capital position
Purpose	To analyze liquidity	To analyze long-term financial changes
Prepared On	Cash basis	Accrual basis (working capital concept)
Time Period	Short-term analysis	Medium/long-term analysis
Main Components	Operating, Investing, Financing Activities	Sources and Applications of Funds
Working Capital	Not mandatory to calculate	Schedule of Changes in Working Capital is required
Usefulness	Helps in cash planning & liquidity control	Helps in financial planning & capital management
Standard Requirement	Mandatory (as per accounting standards like AS-3 / IAS-7)	Not mandatory under modern standards

□ Key Differences in Simple Words

- **Cash Flow Statement** deals only with *cash movement*.

Management Accounting

- **Fund Flow Statement** deals with *changes in working capital*.
- Cash Flow focuses on liquidity.
- Fund Flow focuses on overall financial structure changes.

□ Example to Understand

- Purchase of machinery on credit:
 - Cash Flow Statement → No effect (no cash paid)
 - Fund Flow Statement → Application of funds (increase in fixed asset)

Cash Flow Statement is more useful for short-term liquidity analysis, while Fund Flow Statement helps in understanding long-term financial changes.

UNIT III – Funds Flow & Cash Flow Analysis

5 Mark Questions

Q.No	Question	Level
1	Define Funds Flow Statement.	K1
2	What is Working Capital?	K1
3	What is Schedule of Changes in Working Capital?	K2
4	Define Cash Flow Statement.	K1
5	List the activities in Cash Flow Statement.	K2

8 Mark Questions

Q.No	Question	Level
1	Explain the concept and importance of Funds Flow Statement.	K2
2	Prepare Schedule of Changes in Working Capital.	K3
3	Explain preparation of Funds Flow Statement.	K3
4	Explain Cash Flow Statement as per AS 3.	K2
5	Prepare Cash Flow Statement under Operating, Investing and Financing activities.	K3

Management Accounting

Unit IV

Budget and Budgetary Control

Meaning – Preparation of Various Budgets -Cash Budget - Flexible Budget-

Production Budget-Sales Budget-Master Budget- Budgetary Control - Benefits

Budget – Meaning

A **Budget** is a financial plan prepared for a specific future period that shows the **estimated income and expenditure** of a business, government, or individual.

✓ Simple Meaning

A Budget is a plan of expected receipts and payments for a future period.

□ Definition

A budget can be defined as:

“A quantitative statement prepared in advance for a definite period, showing the planned income and expenditure.”

□ Key Features of a Budget

Key Features of a Budget

A **Budget** is a financial plan prepared in advance for a specific period. Its important features are as follows:

① Prepared in Advance

A budget is made **before the beginning of the period** for which it is prepared.

② For a Specific Period

It is prepared for a **definite time period**, such as:

- Monthly
- Quarterly
- Annually

③ Based on Estimates

A budget is prepared using **forecasted data** and estimates of future income and expenses.

④ Expressed in Monetary Terms

Most budgets are shown in **financial terms (₹, \$, etc.)**, though some may include quantities (units of production).

⑤ Acts as a Planning Tool

It helps in planning future activities and setting targets.

⑥ Acts as a Control Tool

Actual performance is compared with budgeted figures to:
Identify deviations

Management Accounting

- Take corrective action

Prepared for Different Departments

Separate budgets may be prepared for:

- Sales
- Production
- Purchases
- Cash
- Expenses

In Simple Words

A budget is a pre-planned financial statement prepared for a fixed period to guide and control business activities.

Example

If a company estimates:

- Expected Sales = ₹5,00,000
- Expected Expenses = ₹3,50,000

Then the budgeted profit = ₹1,50,000

Purpose of Budget

A **Budget** is a financial plan prepared in advance for a specific period. It serves as an essential tool for planning, coordination, and control in an organization.

Planning for the Future

The primary purpose of a budget is to **plan future activities**.

It helps management to:

- Estimate future income and expenses
- Forecast sales and production levels
- Plan investments and expansion

 It reduces uncertainty about the future.

Cost Control

A budget helps in controlling costs by:

- Setting limits on expenditure
- Preventing unnecessary spending
- Monitoring expenses regularly

Actual results are compared with budgeted figures to identify deviations.

Coordination of Departments

Different departments like:

- Sales
- Production
- Purchase
- Finance

must work together. A budget ensures proper coordination so that all departments move toward common goals.

Efficient Use of Resources

Resources such as:

- Money
- Labour
- Materials
- Machinery

are limited. Budgeting ensures their proper allocation and efficient utilization.

Performance Evaluation

Budgets act as a benchmark for measuring performance.

- Compare actual results with budget
- Analyze variances
- Identify responsibility

This helps in improving efficiency.

Financial Discipline

Budgeting promotes:

- Careful spending
- Accountability
- Better financial management

It prevents reckless financial decisions.

Decision-Making Support

Budgets provide valuable data for managerial decisions such as:

- Pricing decisions
- Expansion plans
- Borrowing or investing funds

Communication Tool

Budgets communicate management expectations to employees and departments, ensuring clarity in responsibilities.

The detailed purpose of a budget is to help an organization plan effectively, control costs, coordinate activities, utilize resources efficiently, and achieve its financial objectives.

Advantages and Limitations of Budget

A **Budget** is an important managerial tool used for planning and control. While it provides many benefits, it also has certain limitations.

✓ Advantages of Budget

1 Helps in Planning

Budgeting helps management plan future activities by estimating income and expenses in advance.

2 Cost Control

Budgets set spending limits and help control unnecessary expenses by comparing actual results with budgeted figures.

3 Improves Coordination

It ensures coordination among different departments such as sales, production, and finance.

4 Efficient Use of Resources

Budgets promote proper allocation and utilization of limited resources like money, labour, and materials.

5 Performance Evaluation

Actual performance is compared with the budget to measure efficiency and identify variances.

6 Encourages Financial Discipline

Budgeting promotes accountability and responsible spending.

7 Helps in Decision Making

Provides useful data for decisions related to pricing, expansion, investment, and financing

× Limitations of Budget 1

Based on Estimates

Budgets rely on forecasts and assumptions, which may not always be accurate.

2 Time-Consuming

Preparation of budgets requires time, effort, and skilled personnel.

3 Rigid in Nature

Budgets may lack flexibility if business conditions change suddenly.

4 May Create Pressure

Unrealistic targets can create stress among employees and reduce motivation.

5 Not a Substitute for Management

A budget is only a tool; success depends on proper implementation and management.

6 Possibility of Manipulation

Managers may intentionally underestimate targets to show better performance.

Budgeting is a powerful planning and control tool, but it must be used carefully, keeping its limitations in mind.

□ Types of Budgets

- Cash Budget
- Flexible Budget
- Purchase Budget
- Production Budget
- Sales Budget
- Master Budget

Cash Budget

Meaning

A **Cash Budget** is a statement that shows the **estimated cash receipts and cash payments** for a specific future period.

It helps to determine:

- Expected cash balance
- Cash surplus or shortage
- Need for borrowing or investment

□ Objectives of Cash Budget

A **Cash Budget** is prepared to estimate the cash inflows and outflows for a specific future period. Its main objective is to ensure proper cash management and maintain liquidity in the business.

✍ To Ensure Adequate Cash Availability

The primary objective is to make sure that the business has enough cash to:

- Meet daily operational expenses

Management Accounting

- Pay suppliers and employees
- Settle short-term liabilities

2 To Avoid Cash Shortages

It helps in identifying possible cash deficits in advance so that management can:

- Arrange loans
- Delay payments
- Adjust expenses

3 To Prevent Idle Cash

Excess cash lying unused is unproductive.

A cash budget helps in planning:

- Investment of surplus cash
- Repayment of loans
- Short-term investments

4 To Plan Borrowings and Repayments

It helps management decide:

- When to borrow funds
- How much to borrow
- When to repay loans

5 To Maintain Liquidity

Ensures that the company maintains a healthy cash balance to meet short-term obligations.

6 To Control Cash Expenditure

By planning payments in advance, unnecessary or excessive spending can be controlled.

7 To Assist in Financial Planning

Cash budgeting supports overall financial planning and decision-making.

☐ In Simple Words

The main objective of a Cash Budget is to ensure that the business always has sufficient cash to meet its needs while avoiding both shortages and excess idle cash.

☐ Types of Cash Budget

	Receipts	and	Payments	Method
	Adjusted		Profit	Method
	Balance Sheet Method			

(Most common in exams: **Receipts and Payments Method**)

Management Accounting

✓ Illustration 1 (Receipts & Payments Method)

Given:

Opening Cash Balance (Jan 1) = ₹20,000

Estimated Cash Receipts:

- Cash Sales = ₹50,000
- Collection from Debtors = ₹30,000
- Loan Received = ₹40,000

Estimated Cash Payments:

- Purchases = ₹60,000
- Salaries = ₹25,000
- Rent = ₹10,000
- Machinery Purchase = ₹20,000

□ Cash Budget

Particulars	Amount (Rs)
Opening Balance	20,000
Add: Cash Receipts	
Cash Sales	50,000
Collection from Debtors	30,000
Loan Received	40,000
Total Cash Available	1,40,000
Less: Cash Payments	
Purchases	60,000
Salaries	25,000
Rent	10,000
Machinery	20,000
Total Payments	1,15,000
Closing Balance	25,000

✓ Illustration 2 (Cash Shortage Case)

Given:

Opening Cash = Rs10,000

Receipts:

- Cash Sales = Rs40,000
- Debtors Collection = Rs20,000

Management Accounting

Payments:

- Purchases = Rs45,000
- Salaries = Rs20,000
- Rent = Rs15,000

☐ Cash Budget

Particulars	Rs
Opening Balance	10,000
Add: Receipts	60,000
Total Cash Available	70,000
Less: Payments	80,000
Closing Balance (Shortage)	(10,000)
☐ Indicates need for borrowing Rs10,000.	

Problem

Prepare a **Cash Budget for July, August and September** from the following information:

☐ Sales (20% Cash, 80% Credit)

Month	Sales (Rs)
May	2,00,000
June	2,40,000
July	2,80,000
August	3,00,000
September	3,20,000

Credit Sales Collection Pattern:

- 50% in next month
- 30% in second month
- 20% in third month

☐ Purchases (All Credit)

Month	Purchases (Rs)
June	1,50,000
July	1,80,000
August	2,00,000

Purchases are paid **two months after purchase**.

☐ Other Information

- Wages = Rs40,000 per month (same month)

Management Accounting

- Factory Expenses = Rs30,000 per month (1 month lag)
- Sales Commission = 5% of sales (paid next month)
- Machinery purchased in August = Rs1,00,000
- Income Tax paid in September = Rs60,000
- Loan received in July = Rs1,50,000
- Opening Cash Balance (1 July) = Rs80,000

□ Working Notes

1 Cash Receipts

July

- Cash Sales (20% of 2,80,000) = 56,000
- From June (50% of 1,92,000) = 96,000
- From May (30% of 1,60,000) = 48,000

Total = **2,00,000**

August

- Cash Sales = 60,000
- From July (50%) = 1,12,000
- From June (30%) = 57,600
- From May (20%) = 32,000

Total = **2,61,600**

September

- Cash Sales = 64,000
- From August (50%) = 1,20,000
- From July (30%) = 67,200
- From June (20%) = 38,400

Total = **2,89,600**

□ CASH BUDGET

□ Cash Budget for July, August & September

Particulars	July (Rs)	August (Rs)	September (Rs)
Opening Balance	80,000	3,28,000	2,35,600
Add: Receipts			
Cash Sales	56,000	60,000	64,000
Collection from Debtors	1,44,000	2,01,600	2,25,600
Loan Received	1,50,000	–	–

Management Accounting

Total Cash Available	4,30,000	5,89,600	5,25,200
Less: Payments			
Payment to Suppliers	–	1,50,000	1,80,000
Wages	40,000	40,000	40,000
Factory Expenses	30,000	30,000	30,000
Rent	–	–	–
Sales Commission	12,000	14,000	15,000
Machinery	–	1,00,000	–
Income Tax	–	–	60,000
Total Payments	82,000	3,34,000	3,25,000
Closing Balance	3,48,000	2,55,600	2,00,200

□ Advantages of Cash Budget

Advantages of Cash Budget

A **Cash Budget** is an important tool of financial planning and control. It offers several advantages to a business.

Ensures Adequate Liquidity

It helps the business maintain sufficient cash to:

- Pay salaries
- Pay suppliers
- Meet short-term liabilities
- Avoid cash shortages

Avoids Cash Crisis

By forecasting cash inflows and outflows in advance, the company can:

- Identify periods of deficit
- Arrange loans in time
- Adjust payments

Prevents Idle Cash

It shows periods of surplus cash so that management can:

- Invest surplus funds
- Repay loans
- Avoid keeping unproductive cash

4 Helps in Planning Borrowings and Repayments

Cash budget indicates:

- When borrowing is required
- How much to borrow
- When repayment is possible

5 Improves Financial Control

By comparing actual cash flows with budgeted figures, management can:

- Detect variances
- Take corrective action
- Control unnecessary spending

6 Assists in Decision-Making

Provides useful information for decisions regarding:

- Capital expenditure
- Expansion plans
- Dividend payments

7 Improves Coordination

It coordinates activities between:

- Sales department
- Production department
- Purchase department
- Finance department

8 Enhances Creditworthiness

Maintaining proper cash management improves the firm's reputation with:

- Banks
- Creditors
- Investors

In Simple Words

A Cash Budget helps a business maintain proper cash balance, avoid shortages, plan borrowings, and improve overall financial control.

Simple Formula

Closing Balance
= Opening Balance + Receipts – Payments

Limitations of Cash Budget

Although a **Cash Budget** is a useful financial planning tool, it has certain limitations.

Based on Estimates

Cash budgets are prepared using forecasts and assumptions about future sales, expenses, and collections.

If estimates are inaccurate, the cash budget may become unreliable.

Cannot Predict Unexpected Events

Sudden events such as:

- Economic changes
- Market fluctuations
- Natural disasters

may disturb the estimated cash flows.

Time-Consuming Process

Preparation of a detailed cash budget requires:

- Careful data collection
- Proper forecasting
- Continuous monitoring

This consumes time and effort.

Ignores Non-Cash Transactions

Cash budget only considers cash inflows and outflows.

It does not consider:

- Depreciation
- Credit sales not yet collected
- Accrued expenses

May Create False Security

Even if the cash budget shows a surplus, actual conditions may differ due to delays in collection or unexpected payments.

Requires Skilled Management

Accurate preparation and interpretation require experienced financial managers.

Short-Term Focus

Cash budget mainly focuses on short-term cash management and does not show overall profitability or financial position.

A Cash Budget is a valuable tool for managing liquidity, but it depends heavily on accurate forecasting and cannot fully eliminate financial risks.

Flexible Budget

✓ Meaning

A **Flexible Budget** is a budget that is prepared for **different levels of activity or output**. It changes (adjusts) according to the actual level of production or sales.

□ Simple Definition

A Flexible Budget is a budget designed to change in accordance with the level of activity actually attained.

□ Why It Is Called “Flexible”

Unlike a fixed budget, it:

- Adjusts to changes in production
- Separates fixed and variable costs
- Provides more accurate cost control

□ Flexible Budget

✓ Meaning

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□ Why It Is Called “Flexible”

Unlike a fixed budget, it:

- Adjusts to changes in production
- Separates fixed and variable costs
- Provides more accurate cost control

□ Features of Flexible Budget

✓ 1 Features of Flexible Budget

A **Flexible Budget** is a budget that changes according to the level of activity. Its main features are as follows:

☑ Prepared for Different Levels of Activity

A flexible budget is designed for **multiple levels of output** such as:

- 60% capacity
- 80% capacity

- 100% capacity

It is not restricted to a single level.

2 **Classifies Costs Properly**

Costs are clearly divided into:

- **Fixed Costs** (remain constant)
- **Variable Costs** (change with output)
- **Semi-variable Costs** (partly fixed, partly variable)

This classification is essential for preparation.

3 **Adjusts with Changes in Production**

The budget automatically adjusts when:

- Production increases
- Production decreases

This makes it flexible and realistic.

4 **More Accurate for Cost Control**

Since it is prepared according to actual activity levels, it provides a better basis for:

- Comparing actual results
- Identifying variances

5 **Useful for Performance Evaluation**

It helps management evaluate performance at different levels of operations.

6 **Suitable for Fluctuating Businesses**

It is especially useful for businesses where:

- Demand changes frequently
- Production levels vary

7 **Better Planning Tool**

It provides detailed cost behavior analysis, helping in better financial planning.

In Simple Words

A Flexible Budget is adaptable, realistic, and accurate because it changes according to the level of business activity.

Example (Illustration)

Given:

At 50% capacity (5,000 units):

- Variable Cost per unit = ₹20
- Fixed Cost = ₹50,000

Management Accounting

Prepare flexible budget for:

- 5,000 units
- 8,000 units
- 10,000 units

□ Flexible Budget

Particulars	5,000 Units	8,000 Units	10,000 Units
Variable Cost (Rs20 per unit)	1,00,000	1,60,000	2,00,000
Fixed Cost	50,000	50,000	50,000
Total Cost	1,50,000	2,10,000	2,50,000

□ Advantages

Flexible Budget – Advantages & Limitations

A **Flexible Budget** adjusts according to different levels of activity. It is more practical than a fixed budget, but it also has some limitations.

✓ Advantages of Flexible Budget

1 More Accurate

Since it is prepared for different levels of activity, it provides a more realistic estimate of costs and revenues.

2 Better Cost Control

It allows comparison between:

- Actual results
- Budgeted figures at the actual level of activity

This helps in effective cost control.

3 Useful for Performance Evaluation

Performance can be evaluated fairly because the budget is adjusted to the actual output level.

4 Suitable for Fluctuating Business

It is highly useful in industries where:

- Production varies
- Demand fluctuates

Helps in Decision-Making

Provides useful information for:

- Pricing decisions
- Cost analysis

- Production planning

6 Identifies Variances Clearly

Since costs are classified as fixed and variable, variance analysis becomes easier and more meaningful.

×Limitations of Flexible Budget

1 Requires Proper Cost Classification

Preparation requires accurate division of costs into:

- Fixed
- Variable
- Semi-variable

This may be difficult in practice.

2 Complex to Prepare

Compared to a fixed budget, it requires:

- More calculations
- Detailed analysis

3 Time-Consuming

Preparation and continuous updating may require significant time and effort.

4 Not Useful for Long-Term Planning

Flexible budgets are mainly used for short-term control rather than long-term planning.

5 Requires Skilled Management

Proper preparation and interpretation require experienced financial personnel.

A Flexible Budget is a powerful tool for cost control and performance evaluation, but it requires proper cost classification and careful preparation.

□ Difference between Fixed & Flexible Budget

Basis	Fixed Budget	Flexible Budget
Activity Level	Single level	Multiple levels
Adjustment	Does not change	Adjusts with output
Accuracy	Less accurate	More accurate

□

A Flexible Budget is a practical and realistic budgeting tool that adapts to changes in business activity.

Management Accounting

Flexible Budget (With Semi-Variable Costs)

✓ Problem

The following information relates to a factory at **50% capacity (10,000 units)**:

Particulars	Amount (Rs)
Direct Material	2,00,000
Direct Labour	1,50,000
Factory Overheads	1,00,000
Administrative Overheads	80,000
Selling Expenses	60,000

Additional Information:

① Direct Material and Direct Labour are **100% variable**.

② Factory Overheads:

- 40% Fixed
- 60% Variable

③ Administrative Overheads:

- 50% Fixed
- 50% Variable

④ Selling Expenses:

- ₹20,000 Fixed
- Balance Variable

Prepare a **Flexible Budget** for:

- 8,000 units (40% capacity)
- 12,000 units (60% capacity)
- 16,000 units (80% capacity)

□ Step 1: Classification of Costs at 10,000 Units

□ Direct Costs (Fully Variable)

- Direct Material = 2,00,000 → ₹20 per unit
- Direct Labour = 1,50,000 → ₹15 per unit

□ Factory Overheads (1,00,000)

- Fixed (40%) = 40,000
- Variable (60%) = 60,000 → ₹6 per unit

□ Administrative Overheads (80,000)

- Fixed (50%) = 40,000

Management Accounting

- Variable (50%) = 40,000 → ₹4 per unit

□ Selling Expenses (60,000)

- Fixed = 20,000
- Variable = 40,000 → ₹4 per unit

□ Variable Cost per Unit Summary

Cost Element	Rs per Unit
Direct Material	20
Direct Labour	15
Factory OH (Var.)	6
Admin OH (Var.)	4
Selling Exp. (Var.)	4
Total Variable Cost per Unit	49

□ Step 2: Flexible Budget

□ Flexible Budget Statement

Particulars	8,000 Units (Rs)	12,000 Units (Rs)	16,000 Units (RS)
Variable Costs (Rs49 per unit)			
Direct Material	1,60,000	2,40,000	3,20,000
Direct Labour	1,20,000	1,80,000	2,40,000
Factory OH (Var.)	48,000	72,000	96,000
Admin OH (Var.)	32,000	48,000	64,000
Selling Exp. (Var.)	32,000	48,000	64,000
Total Variable Cost	3,92,000	5,88,000	7,84,000
Fixed Costs			
Factory OH (Fixed)	40,000	40,000	40,000
Admin OH (Fixed)	40,000	40,000	40,000
Selling Exp. (Fixed)	20,000	20,000	20,000
Total Fixed Cost	1,00,000	1,00,000	1,00,000
Total Cost	4,92,000	6,88,000	8,84,000

☑ Prepared for Different Levels of Output

Example: 60%, 80%, 100% capacity

Management Accounting

Classifies Costs

- Fixed Costs
- Variable Costs
- Semi-variable Costs

More Realistic

Gives better comparison with actual performance.

Useful for Cost Control

Helps analyze efficiency at various production levels.

☐ Example (Illustration)

Given:

At 50% capacity (5,000 units):

- Variable Cost per unit = Rs20
- Fixed Cost = Rs50,000

Prepare flexible budget for:

- 5,000 units
- 8,000 units
- 10,000 units

☐ Flexible Budget

Particulars	5,000 Units	8,000 Units	10,000 Units
Variable Cost (Rs20 per unit)	1,00,000	1,60,000	2,00,000
Fixed Cost	50,000	50,000	50,000
Total Cost	1,50,000	2,10,000	2,50,000

☐ Advantages

- ✓ More accurate
- ✓ Better cost control
- ✓ Useful in variance analysis
- ✓ Suitable when production fluctuates

Management Accounting

× Limitations

- × Requires cost classification
- × More complex to prepare
- × Needs accurate data

□ Difference between Fixed & Flexible Budget

Basis	Fixed Budget	Flexible Budget
Activity Level	Single level	Multiple levels
Adjustment	Does not change	Adjusts with output
Accuracy	Less accurate	More accurate

A Flexible Budget is a practical and realistic budgeting tool that adapts to changes in business activity.

Flexible Budget –

(Including Semi-Variable Costs & Profit Calculation)

✓ Illustration 1 (With Semi-Variable Cost & Change in Selling Price)

□ Given:

At **60% capacity (6,000 units)**:

Particulars	Amount (Rs)
Direct Material	1,20,000
Direct Labour	90,000
Factory Overheads	1,00,000
Administration Overheads	60,000
Selling & Distribution	50,000

Additional Information:

- 1 Direct Material & Labour are fully variable
- 2 Factory Overheads: 50% Fixed, 50% Variable
- 3 Administration Overheads: 40% Fixed, 60% Variable
- 4 Selling & Distribution: Rs20,000 Fixed, balance variable
- 5 Selling Price = Rs80 per unit

Prepare a **Flexible Budget for 8,000 and 10,000 units** and calculate profit.

Management Accounting

□ Step 1: Cost Classification (at 6,000 units)

Direct Material → Rs20 per unit

Direct Labour → Rs15 per unit

Factory OH:

- Fixed = 50,000
- Variable = 50,000 → Rs8.33 per unit

Admin OH:

- Fixed = 24,000
- Variable = 36,000 → Rs6 per unit

Selling:

- Fixed = 20,000
- Variable = 30,000 → Rs 5 per unit

□ Total Variable Cost per Unit

Cost	Rs per unit
Material	20
Labour	15
Factory OH	8.33
Admin OH	6
Selling	5
Total	54.33

□ Flexible Budget

Particulars	8,000 Units (Rs)	10,000 Units (Rs)
Sales (@ Rs80)	6,40,000	8,00,000
Variable Cost	4,34,640	5,43,300
Contribution	2,05,360	2,56,700
Fixed Costs	94,000	94,000
Profit	1,11,360	1,62,700

□ Observation

- ✓ Profit increases with output
- ✓ Fixed cost remains constant
- ✓ Contribution improves at higher capacity

Management Accounting

✓ Illustration 2 (With Step Fixed Cost)

□ **Given:**

At **10,000 units:**

Particulars	Amount (Rs)
Direct Material	3,00,000
Direct Labour	2,00,000
Factory OH	1,50,000
Admin OH	80,000

Additional Information:

① Direct costs fully variable

② Factory OH:

- ₹70,000 Fixed up to 12,000 units
- Additional ₹20,000 fixed above 12,000 units
- Balance variable

③ Admin OH: 50% Fixed

④ Selling price = Rs100 per unit

Prepare Flexible Budget for:

- 12,000 units
- 15,000 units

□ Step 1: Cost Classification at 10,000 Units

Material = Rs30 per unit

Labour = Rs20 per unit

Factory OH:

- Fixed = 70,000
- Variable = 80,000 → Rs8 per unit

Admin OH:

- Fixed = 40,000
- Variable = 40,000 → Rs4 per unit

□ Variable Cost per Unit

= 30 + 20 + 8 + 4
= Rs62 per unit

Management Accounting

☐ Flexible Budget

☐ At 12,000 Units

Sales = 12,000 × 100 = 12,00,000

Variable Cost = $12,000 \times 62 = 7,44,000$

Contribution = 4,56,000

Fixed Cost:

- Factory = 70,000
- Admin = 40,000

Total Fixed = 1,10,000

☐ Profit = **3,46,000**

☐ At 15,000 Units

Sales = 15,00,000

Variable Cost = 9,30,000

Contribution = 5,70,000

Fixed Cost:

- Factory = $70,000 + 20,000 = 90,000$
- Admin = 40,000

Total Fixed = 1,30,000

☐ Profit = **4,40,000**

Purchase Budget

✓ Meaning

A **Purchase Budget** is a budget that shows the **estimated quantity and cost of materials to be purchased** during a specific period to meet production requirements.

It helps ensure that sufficient materials are available without overstocking.

☐ Purpose of Purchase Budget

Purpose of Purchase Budget

A **Purchase Budget** is prepared to estimate the quantity and cost of materials required for production during a specific period. Its main purpose is to ensure smooth and economical purchasing of materials.

1 To Ensure Continuous Supply of Materials

The primary purpose is to make sure that sufficient raw materials are available for production without interruption.

- ☐ Prevents production delays due to material shortages.

2 To Avoid Overstocking

It helps maintain an optimal level of inventory by:

- Avoiding excessive purchases
- Reducing storage and carrying costs

3 To Control Purchasing Cost

By planning purchases in advance, management can:

- Negotiate better prices
- Avoid emergency purchases
- Reduce unnecessary expenses

4 To Coordinate with Production Budget

The purchase budget is prepared based on the **production budget**, ensuring coordination between production and purchasing departments.

5 To Plan Cash Requirements

Since purchases involve cash payments, the purchase budget helps in:

- Estimating future cash outflows
- Preparing the cash budget

6 To Improve Inventory Management

It helps in maintaining:

- Proper opening stock
- Desired closing stock

This ensures efficient inventory control.

7 To Assist in Decision-Making

Provides useful data for decisions related to:

- Supplier selection
- Bulk purchasing
- Discount opportunities

☐ In Simple Words

The main purpose of a Purchase Budget is to ensure the right quantity of materials is purchased at the right time and at the right cost.

□ Formula for Purchase Budget

□ In Units:

$\text{Purchases} = \text{Material Required for Production} + \text{Closing Stock} - \text{Opening Stock}$

□ In Value:

$\text{Purchase Cost} = \text{Units to be Purchased} \times \text{Cost per Unit}$

✓ Illustration 1 (Basic Level)

Given:

Production Budget for April = 10,000 units

Material required per unit = 5 kg

Opening Stock of Material = 8,000 kg

Closing Stock required = 12,000 kg Cost

per kg = Rs10

□ Step 1: Material Required for Production

$10,000 \text{ units} \times 5 \text{ kg} = 50,000 \text{ kg}$

□ Step 2: Calculate Purchases

50,000

• 12,000 (Closing Stock)

– 8,000 (Opening Stock)

= 54,000 kg

□ Step 3: Purchase Cost

$54,000 \times \text{Rs}10 = \text{Rs}5,40,000$

□ Purchase Budget

Particulars	Quantity (kg)	Amount (Rs)
Material for Production	50,000	
Add: Closing Stock	12,000	
Less: Opening Stock	(8,000)	
Purchases Required	54,000	
Cost per kg		10
Total Purchase Cost		5,40,000

Management Accounting

✓ Illustration 2 (Monthly Purchase Budget)

Given:

Production Units:

Month Production	
January	5,000
February	6,000
March	8,000
Material per unit = 4 kg	

Closing stock each month = 20% of next month's production needs
Opening stock (Jan) = 3,000 kg

Cost per kg = Rs15

□ Working for January

Material	for	Production:
$5,000 \times 4 = 20,000$ kg		
Closing Stock	(20% of Feb needs):	
$6,000 \times 4 \times 20\% = 4,800$ kg		
Purchases		=
20,000	+ 4,800	- 3,000
= 21,800 kg		
Purchase	Cost	=
$21,800 \times 15 = \text{Rs}3,27,000$		

(Repeat same process for February & March)

□ Advantages of Purchase Budget

Advantages of Purchase Budget

A **Purchase Budget** helps a business plan and control the purchase of raw materials effectively. It offers the following advantages:

1 Ensures Continuous Production

It ensures that sufficient raw materials are available when needed, avoiding production interruptions due to shortages.

2 Prevents Overstocking

By planning purchases in advance, it avoids excessive stock accumulation, which reduces:

- Storage costs
- Risk of damage or obsolescence

3 Improves Cost Control

Advance planning enables:

- Bulk purchasing at lower prices
- Availing trade discounts
- Avoiding emergency purchases at high rates

4 Better Cash Management

Since purchases involve payments, it helps in:

- Forecasting cash outflows
- Preparing the cash budget

5 Proper Inventory Management

It helps maintain optimal levels of:

- Opening stock
- Closing stock

Thus improving inventory control.

6 Enhances Coordination

It coordinates purchasing activities with:

- Production department
- Sales department
- Finance department

7 Assists in Performance Evaluation

Actual purchases can be compared with budgeted purchases to:

- Identify variances
- Evaluate purchasing efficiency

8 Reduces Risk of Stock-Outs

Ensures timely availability of materials, preventing loss of sales or customer dissatisfaction.

A Purchase Budget helps ensure smooth production, better cost control, efficient inventory management, and proper financial planning.

Problem

A company manufactures Product X. The production budget for the next three months is:

Month	Units to be Produced
January	8,000
February	10,000
March	12,000

Each unit of Product X requires:

Management Accounting

- 3 kg of Material A
- 2 kg of Material B

The company maintains closing stock of raw materials equal to **25% of next month's production requirement**.

Opening Stock (1 January):

- Material A = 5,000 kg
- Material B = 3,000 kg

Cost per kg:

- Material A = Rs20
- Material B = Rs15

Prepare a **Purchase Budget for January** (in quantity and value).

☐ Step 1: Material Required for Production (January)

☐ Material A

8,000 units × 3 kg = **24,000 kg**

☐ Material B

8,000 units × 2 kg = **16,000 kg**

☐ Step 2: Closing Stock Requirement (25% of February Needs)

February Production = 10,000 units

Material		A		for		February:
10,000	×	3	=	30,000		kg

Closing Stock (25%) = 7,500 kg

Material		B		for		February:
10,000	×	2	=	20,000		kg

Closing Stock (25%) = 5,000 kg

☐ Step 3: Calculate Purchases

☐ Material A

Required	for	Production	=	24,000
Add:	Closing	Stock	=	7,500

Less: Opening Stock = 5,000

Purchases = **26,500 kg**

Purchase	Cost	=
----------	------	---

26,500 × Rs20 = Rs**5,30,000**

Management Accounting

□ Material B

Required	for	Production	=	16,000
Add:	Closing	Stock	=	5,000
Less: Opening Stock = 3,000				
Purchases = 18,000 kg				
Purchase		Cost	=	
18,000 × Rs15 = Rs2,70,000				

□ Purchase Budget for January

Particulars	Material A	Material B
Material for Production	24,000 kg	16,000 kg
Add: Closing Stock	7,500 kg	5,000 kg
Less: Opening Stock	(5,000 kg)	(3,000 kg)
Purchases (kg)	26,500	18,000
Cost per kg	Rs20	Rs15
Total Purchase Cost	Rs5,30,000	Rs2,70,000

✓ **Total Purchase Cost for January = Rs8,00,000**

Limitations of Purchase Budget

Although a **Purchase Budget** is an important planning tool, it has certain limitations.

✕1 Based on Estimates

The purchase budget is prepared using estimated production and sales figures. If these estimates are inaccurate, the purchase plan may also be incorrect.

✕2 Depends on Production Budget

It is directly linked to the production budget. Any change in production automatically affects the purchase budget.

✕3 Cannot Predict Sudden Changes

Unexpected factors such as:

- Price fluctuations
- Supply shortages
- Market changes

may disturb the planned purchases.

✕4 Risk of Over or Under Stocking

Incorrect estimation of:

- Closing stock
- Material requirements

may lead to excess inventory or stock-outs.

Time-Consuming

Preparation requires:

- Detailed calculations
- Coordination between departments
- Continuous revision

Requires Accurate Cost Classification

If material costs or usage rates are wrongly estimated, the entire budget becomes unreliable.

Does Not Consider Non-Material Factors

It mainly focuses on material purchases and does not directly reflect:

- Labour issues
- Machine breakdowns
- External economic conditions

While the Purchase Budget helps in planning and controlling material purchases, it depends heavily on accurate forecasts and proper coordination.

Production Budget

✓ Meaning

A **Production Budget** is a budget that shows the **number of units to be produced** during a specific period to meet expected sales demand and maintain desired inventory levels.

It ensures that sufficient goods are produced to meet sales requirements.

☐ Purpose of Production Budget

Purpose of Production Budget

A **Production Budget** is prepared to determine the number of units to be produced during a specific period. It is mainly based on the sales budget and desired inventory levels.

The detailed purposes are as follows:

1 To Meet Sales Demand

The primary purpose is to ensure that enough goods are produced to satisfy expected sales.

- ☐ Prevents stock shortages and loss of customers.

2 To Maintain Desired Inventory Levels

It helps in maintaining proper:

- Opening stock
- Closing stock

Thus avoiding overstocking or understocking.

To Avoid Overproduction and Underproduction

Overproduction leads to:

- High storage costs
- Risk of damage or obsolescence

Underproduction leads to:

- Loss of sales
- Customer dissatisfaction

To Plan Production Activities

It helps management plan:

- Labour requirements
- Machine utilization
- Raw material needs

To Coordinate with Other Budgets

Production budget coordinates with:

- Sales Budget
- Purchase Budget
- Labour Budget
- Cash Budget

Ensuring smooth overall operations.

To Ensure Efficient Use of Resources

Helps in better utilization of:

- Manpower
- Machinery
- Materials

To Control Production Costs

By planning production in advance, the company can control:

- Wastage
- Idle capacity
- Excess expenses

Management Accounting

□ In Simple Words

The main purpose of a Production Budget is to plan the right quantity of production to meet sales demand while maintaining proper inventory levels and controlling costs.

✓ Illustration 1 (Basic Level)

Given:

Budgeted Sales for April = 10,000 units

Opening Stock = 2,000 units

Desired Closing Stock = 3,000 units

□ Calculation

Units to be Produced =
 $10,000 + 3,000 - 2,000$
 = **11,000 units**

☐ Production Budget

Particulars	Units
Budgeted Sales	10,000
Add: Closing Stock	3,000
Less: Opening Stock	(2,000)
Production Required	11,000 units

✔ Illustration 2 (Monthly Production Budget)

Given:

Month	Sales (Units)
January	8,000
February	10,000
March	12,000

Closing stock policy:

Closing stock each month = 20% of next month's sales

Opening stock (Jan 1) = 1,600 units

□ Step 1: Closing Stock Calculation

January Closing = 20% of February Sales
= 20% of 10,000 = 2,000 units

Management Accounting

February Closing = 20% of March Sales
= 20% of 12,000 = 2,400 units

□ Step 2: Production Budget

Particulars	January	February
Budgeted Sales	8,000	10,000
Add: Closing Stock	2,000	2,400
Less: Opening Stock	(1,600)	(2,000)
Production Required	8,400	10,400

□ Features of Production Budget

A **Production Budget** is prepared to determine the number of units to be produced during a specific period. Its important features are as follows:

1 Based on Sales Budget

The production budget is primarily prepared on the basis of the **sales budget**. Expected sales determine the required level of production.

2 Expressed in Units

It is prepared in terms of **quantity (units)**, not in monetary value.

3 Considers Inventory Levels

It takes into account:

- Opening stock of finished goods
- Desired closing stock

Formula used:

Production = Sales + Closing Stock – Opening Stock

4 Prepared for a Specific Period

It is prepared for a definite time period such as:

- Monthly
- Quarterly
- Annually

5 Helps in Capacity Planning

It considers:

- Production capacity
- Availability of labour and machinery

6 Coordinates with Other Budgets

It acts as a link between:

- Sales Budget
- Purchase Budget
- Labour Budget
- Overhead Budget

Ensures Smooth Production Flow

It helps maintain continuous production without:

- Idle time
- Stock shortages

Flexible According to Demand

It may be revised if sales forecasts change.

In Simple Words

A Production Budget is a unit-based plan prepared from the sales forecast that ensures the right quantity of goods is produced while maintaining proper stock levels.

Advantages

A **Production Budget** plays an important role in planning and controlling manufacturing activities. Its major advantages are as follows:

Ensures Continuous Production

It helps maintain a steady flow of production by ensuring that goods are produced in the required quantity and at the right time.

Prevents Overproduction and Underproduction

- Avoids excess stock and high storage costs
- Prevents shortage of goods and loss of sales

Helps in Resource Planning

It assists in planning the requirements of:

- Raw materials
- Labour
- Machinery
- Factory capacity

Improves Inventory Control

By considering opening and closing stock levels, it helps maintain optimum inventory.

Facilitates Cost Control

Advance production planning reduces:

- Wastage

- Idle time
- Unnecessary expenses

Enhances Coordination

It coordinates activities between:

- Sales Department
- Production Department
- Purchase Department
- Finance Department

Assists in Capacity Utilization

Ensures better use of production capacity and avoids underutilization of resources.

Basis for Other Budgets

It forms the foundation for preparing:

- Purchase Budget
- Labour Budget
- Overhead Budget
- Cash Budget

A Production Budget helps in efficient planning, cost control, inventory management, and smooth coordination of business activities.

×Limitations

Although a **Production Budget** is useful for planning and control, it has certain limitations.

Based on Sales Forecast

The production budget depends on the sales budget.

If sales forecasts are inaccurate, production planning will also be incorrect.

Cannot Predict Sudden Market Changes

Unexpected factors such as:

- Change in demand
- Economic fluctuations
- Competition

may affect actual production requirements.

Risk of Overproduction or Underproduction

Incorrect estimation may lead to:

- Excess inventory and higher storage costs
- Shortage of goods and loss of sales

Rigid in Nature

Once prepared, it may not easily adjust to sudden changes in:

- Production capacity
- Labour availability
- Material supply

Requires Accurate Inventory Data

Wrong information about:

- Opening stock
- Closing stock

can lead to inaccurate production planning.

Time-Consuming

Preparation requires:

- Detailed analysis
- Coordination between departments

Does Not Consider External Factors Directly

It mainly focuses on internal planning and may not account for:

- Technological changes
- Government regulations
- Supply chain disruptions

While the Production Budget is essential for planning manufacturing activities, it heavily depends on accurate forecasts and proper coordination.

Illustration 1 (Single Product – Monthly Production Budget)

☐ **Given:**

Budgeted Sales:

Month	Sales (Units)
January	5,000
February	7,000
March	6,000

Closing stock each month = **25% of next month's sales**

Opening stock (1 January) = **1,250 units**

Management Accounting

□ Step 1: Calculate Closing Stock

January Closing = 25% of February Sales
= 25% of 7,000 = 1,750 units

February Closing = 25% of March Sales
= 25% of 6,000 = 1,500 units

□ Step 2: Production Budget

Production = Sales + Closing Stock – Opening Stock

Particulars	January	February
Budgeted Sales	5,000	7,000
Add: Closing Stock	1,750	1,500
Less: Opening Stock	(1,250)	(1,750)
Production Required	5,500	6,750

✓ Illustration 2 (Multi-Product Production Budget)

A company produces two products: **A and B**.

□ Given:

Particulars	Product A	Product B
Budgeted Sales	8,000	6,000
Opening Stock	1,000	800
Closing Stock Required	1,500	1,200

□ Production Budget

Particulars	Product A	Product B
Budgeted Sales	8,000	6,000
Add: Closing Stock	1,500	1,200
Less: Opening Stock	(1,000)	(800)
Production Required	8,500	6,400

✓ Illustration 3 (Quarterly Production Budget)

□ Given:

Sales Forecast:

Quarter	Sales (Units)
Q1	12,000
Q2	15,000
Q3	18,000

Management Accounting

Closing stock each quarter = 20% of next quarter's sales

Opening stock (Q1) = 2,400 units

□ Closing Stock Calculation

Q1 Closing = 20% of Q2
= 3,000 units

Q2 Closing = 20% of Q3
= 3,600 units

□ Production Budget

Particulars	Q1	Q2
Budgeted Sales	12,000	15,000
Add: Closing Stock	3,000	3,600
Less: Opening Stock	(2,400)	(3,000)

Sales Budget

✓ Meaning

A **Sales Budget** is a budget that shows the **estimated quantity and value of sales** for a specific future period.

It is the **starting point** of the entire budgeting process because all other budgets (production, purchase, cash, etc.) depend on it.

□ Definition

A Sales Budget is a statement showing the expected sales in terms of quantity and value during a budget period.

□ Purpose of Sales Budget

A **Sales Budget** is prepared to estimate the expected sales of a business for a specific future period. It plays a crucial role in planning and decision-making.

The main purposes are explained below:

📌 1 To Forecast Future Sales

The primary purpose is to estimate:

- Quantity of goods to be sold

Management Accounting

- Expected revenue from sales

It provides a clear sales target for the organization.

Basis for Other Budgets

The Sales Budget is the **foundation of all other budgets**, such as:

- Production Budget
- Purchase Budget
- Cash Budget
- Labour Budget

Without sales estimates, other budgets cannot be prepared properly.

Helps in Production Planning

By knowing expected sales, the company can:

- Plan production levels
- Avoid overproduction
- Avoid stock shortages

Assists in Financial Planning

It helps in estimating:

- Future revenue
- Cash inflows
- Profit expectations

This supports overall financial planning.

Supports Marketing Planning

It helps management to:

- Plan advertising strategies
- Allocate sales targets
- Set pricing policies

Improves Coordination

It ensures coordination between:

- Sales Department
- Production Department
- Finance Department

Performance Evaluation

Actual sales can be compared with budgeted sales to:

- Measure performance
- Identify deviations

Management Accounting

- Take corrective action

☐ In Simple Words

The main purpose of a Sales Budget is to forecast future sales and provide a basis for planning production, purchasing, and financial activities.

☒ Illustration 1 (Single Product)

☐ Given:

Estimated Sales for April = 10,000 units

Selling Price per unit = ₹50

☐ Sales Budget

Particulars	Units	Rate (Rs)	Amount (Rs)
Product A	10,000	50	5,00,000

☒ Illustration 2 (Monthly Sales Budget)

☐ Given:

Month	Sales Units	Selling Price (Rs)
January	8,000	40
February	10,000	40
March	12,000	40

☐ Sales Budget

Month	Units	Rate	Sales Value (Rs)
January	8,000	40	3,20,000
February	10,000	40	4,00,000
March	12,000	40	4,80,000
Total	30,000		12,00,000

☒ Illustration 3 (Multiple Products)

☐ Given:

Product	Units	Selling Price (Rs)
A	5,000	100
B	4,000	80

□ Sales Budget

Product	Units	Rate	Sales Value (Rs)
A	5,000	100	5,00,000
B	4,000	80	3,20,000
Total Sales			8,20,000

□ Features of Sales Budget

A **Sales Budget** is the starting point of the budgeting process. It estimates the quantity and value of sales for a future period. Its main features are as follows:

① Based on Sales Forecast

The sales budget is prepared on the basis of:

- Market research
- Past sales trends
- Customer demand
- Economic conditions

② Prepared First in Budgeting Process

It is the **foundation of all other budgets**, such as:

- Production Budget
- Purchase Budget
- Cash Budget

③ Expressed in Units and Value

It shows:

- Number of units expected to be sold
- Selling price per unit
- Total sales value

④ Prepared for a Specific Period

It may be prepared:

- Monthly
- Quarterly
- Annually

⑤ May Be Prepared Product-wise or Area-wise

Sales budget can be classified by:

- Product
- Sales region

- Sales department
- Salesperson

6 Includes Both Cash and Credit Sales

It may separately show:

- Cash sales
- Credit sales

This helps in preparing the cash budget.

7 Flexible and Adjustable

It may be revised if:

- Market conditions change
- Demand fluctuates

8 Realistic and Practical

It should be based on realistic estimates rather than over-optimistic expectations.

☐ In Simple Words

A Sales Budget is a forecast of expected sales in units and value, prepared first in the budgeting process and used as a basis for all other budgets.

☐ Advantages

Advantages of Sales Budget

A **Sales Budget** is the foundation of the entire budgeting system. It provides several important advantages to a business.

1 Basis for Other Budgets

The sales budget serves as the starting point for preparing:

- Production Budget
- Purchase Budget
- Labour Budget
- Cash Budget

All other budgets depend on expected sales.

2 Helps in Revenue Planning

It estimates expected sales revenue, which helps management in:

- Profit planning
- Financial forecasting
- Target setting

Improves Production Planning

By forecasting demand, it helps avoid:

- Overproduction
- Underproduction
- Stock shortages

Assists in Marketing Strategy

It helps in planning:

- Advertising campaigns
- Pricing strategies
- Sales promotions

Enhances Coordination

It ensures coordination between:

- Sales Department
- Production Department
- Finance Department

Facilitates Performance Evaluation

Actual sales can be compared with budgeted sales to:

- Measure performance
- Identify deviations
- Take corrective action

Helps in Cash Flow Planning

By estimating cash and credit sales, it supports:

- Cash budgeting
- Working capital management

Encourages Goal-Oriented Approach

It sets clear sales targets for:

- Sales teams
- Marketing staff

This improves accountability and motivation.

A Sales Budget helps in planning revenue, coordinating departments, controlling performance, and forming the basis for all other budgets.

×Limitations

Although a **Sales Budget** is an important planning tool, it has certain limitations.

×1 Based on Estimates and Forecasts

Sales budgets are prepared using predicted sales figures.

If the forecast is inaccurate, the entire budgeting process may be affected.

×2 Affected by Market Uncertainty

External factors such as:

- Economic conditions
- Competition
- Changes in consumer demand
- Government policies

can make the sales estimate unreliable.

×3 Risk of Over-Optimism or Under-Estimation

Managers may:

- Overestimate sales to show growth
- Underestimate sales to achieve targets easily

This affects the accuracy of the budget.

×4 Difficult in Seasonal Businesses

In businesses with seasonal demand, sales may fluctuate significantly, making budgeting difficult.

×5 Depends on Proper Market Research

If market research is poor or incomplete, the sales budget may be misleading.

×6 Frequent Revisions Required

Changing market conditions may require continuous updates and revisions.

×7 May Ignore Unexpected Events

Events like:

- Economic recession
- Natural disasters
- Sudden supply chain disruptions

can disturb actual sales performance.

Management Accounting

A Sales Budget is useful for planning and control, but its accuracy depends heavily on reliable forecasting and stable market conditions.

Integrated Sales–Production–Purchase Budget

✓ Problem

A company manufactures Product X.

1 Sales Forecast (Units)

Month	Sales Units
January	8,000
February	10,000
March	12,000

2 Inventory Policy

- Closing stock of finished goods = **20% of next month's sales**
- Opening stock (Jan 1) = **1,600 units**

3 Material Requirement

Each unit requires **5 kg of Material A**

Closing stock of material = **25% of next month's production requirement**

Opening stock of material (Jan 1) = **6,000 kg**

Cost per kg = Rs10

□ STEP 1: Sales Budget

Month	Units
January	8,000
February	10,000
March	12,000

□ STEP 2: Production Budget

□ Closing Stock of Finished Goods

January Closing = 20% of Feb Sales
= $20\% \times 10,000 = 2,000$ units

February Closing = 20% of March Sales
= $20\% \times 12,000 = 2,400$ units

□ Production Budget

Production = Sales + Closing Stock – Opening Stock

Management Accounting

Particulars	January	February
Sales	8,000	10,000
Add: Closing Stock	2,000	2,400
Less: Opening Stock	(1,600)	(2,000)
Production Required	8,400	10,400

□ STEP 3: Material Requirement for Production

Material per unit = 5 kg

January:

$$8,400 \times 5 = 42,000 \text{ kg}$$

February:

$$10,400 \times 5 = 52,000 \text{ kg}$$

□ STEP 4: Purchase Budget

□ Closing Stock of Material

January Closing = 25% of Feb requirement
 $= 25\% \times 52,000 = 13,000 \text{ kg}$

□ Purchase Budget (January)

Particulars	Quantity (kg)
Material for Production	42,000
Add: Closing Stock	13,000
Less: Opening Stock	(6,000)
Purchases Required	49,000 kg

Purchase Cost =
 $49,000 \times \text{Rs } 10 = \text{Rs } \mathbf{4,90,000}$

□ Summary of Integrated Budgets

Budget Type	Key Output
Sales Budget	Sales Forecast (Units)
Production Budget	Units to Produce
Purchase Budget	Raw Material to Purchase

Illustration 1 (Multi-Product Integrated Budget)

A company manufactures **Product A and Product B.**

Management Accounting

1 Sales Forecast (Units)

Month	Product A	Product B
January	5,000	4,000
February	6,000	5,000

2 Inventory Policy (Finished Goods)

- Closing stock = **25% of next month's sales**
- Opening stock (Jan 1):
 - Product A = 1,250 units
 - Product B = 1,000 units

3 Material Requirement

Each unit requires:

Product	Material X (kg)
A	4 kg
B	3 kg

Closing stock of material = **20% of next month's production needs**

Opening stock of Material X = **5,000 kg**

Cost per kg = Rs12

□ STEP 1: Production Budget

□ Closing Stock (January)

Product A = 25% of 6,000 = 1,500

Product B = 25% of 5,000 = 1,250

□ Production Budget (January)

Particulars	Product A	Product B
Sales	5,000	4,000
Add: Closing Stock	1,500	1,250
Less: Opening Stock	(1,250)	(1,000)
Production	5,250	4,250

□ STEP 2: Material Requirement

Material X required:

Product A: A:

$5,250 \times 4 = 21,000 \text{ kg}$

Management Accounting

Product

B:

$$4,250 \times 3 = 12,750 \text{ kg}$$

Total Requirement = **33,750 kg**

□ STEP 3: Purchase Budget

Closing stock of material (20% of Feb production):

Assume Feb Production (similar method) = 6,250 units A & 5,250 units B

Material		needed		Feb:		
(6,250	×	4)	+	(5,250	×	3)
=		25,000		+		15,750
= 40,750 kg						
Closing stock (20%) = 8,150 kg						

□ Purchase Budget (January)

Particulars	Quantity (kg)
Material Required	33,750
Add: Closing Stock	8,150
Less: Opening Stock	(5,000)
Purchases Required	36,900 kg

Purchase	Cost	=
36,900 × Rs 12 = Rs	4,42,800	

✓ Illustration 2 (Integrated Budget with Value Calculation)

□ Sales Forecast

Month	Sales (Units)	Selling Price (₹)
March	10,000	50
April	12,000	50

□ Inventory Policy

- Closing stock = 30% of next month's sales
- Opening stock (March 1) = 2,500 units

□ Material Requirement

Each unit requires 6 kg

Management Accounting

Opening stock of material = 8,000 kg
 Closing stock of material = 25% of next month's needs
 Cost per kg = Rs 8

□ STEP 1: Sales Budget (March)

Sales Value = 10,000 × 50 = Rs 5,00,000

□ STEP 2: Production Budget (March)

Closing Stock (30% of April sales):
 $30\% \times 12,000 = 3,600$ units
 Production =
 $10,000 + 3,600 - 2,500$
 = **11,100 units**

□ STEP 3: Material Requirement

Material for production:
 $11,100 \times 6 = 66,600$ kg
 Closing stock of material:
 April production (assume 13,000 units approx.)
 $13,000 \times 6 = 78,000$ kg
 $25\% = 19,500$ kg

□ STEP 4: Purchase Budget (March)

Particulars	Quantity (kg)
Required for Production	66,600
Add: Closing Stock	19,500
Less: Opening Stock	(8,000)
Purchases Required	78,100 kg

Purchase Cost =
 $78,100 \times 8 = \text{Rs } 6,24,800$

Master Budget

✓ Meaning

A **Master Budget** is a comprehensive budget that combines all the functional budgets of an organization into one overall financial plan for a specific period.

It provides a complete picture of the company's:

- Expected income

- Expected expenses
- Financial position
- Cash position

□ Definition

A Master Budget is a summary budget that consolidates all individual functional budgets into a single overall budget.

□ Components of Master Budget

Components of Master Budget

A **Master Budget** is a comprehensive financial plan that combines all functional budgets of an organization. It is generally divided into two major parts:

□ I. Operating Budgets

These budgets relate to the day-to-day operations of the business.

1 Sales Budget

- Estimates quantity and value of sales
- Forms the basis of all other budgets

2 Production Budget

- Determines the number of units to be produced
- Based on sales forecast and inventory policy

3 Purchase (Materials) Budget

- Estimates raw materials to be purchased
- Based on production requirements

4 Direct Labour Budget

- Estimates labour hours and labour cost required for production

5 Factory Overhead Budget

- Estimates manufacturing overhead costs
- Includes fixed and variable overheads

6 Selling and Distribution Budget

- Estimates expenses related to marketing and distribution

7 Administrative Budget

- Estimates administrative expenses

□ II. Financial Budgets

These budgets focus on financial planning and position.

Cash Budget

- Estimates cash inflows and outflows
- Shows expected cash balance

Budgeted Income Statement

- Shows expected profit or loss
- Based on all operating budgets

Budgeted Balance Sheet

- Shows expected financial position at the end of the period

☐ Summary Structure

Master Budget =

Operating Budgets

- Financial Budgets

☐ In Simple Words

The Master Budget includes all functional budgets (sales, production, purchase, labour, etc.) and financial statements (cash budget, income statement, balance sheet) to provide a complete financial plan of the business.

☐ Structure of Master Budget

Sales Budget

↓

Production Budget

↓

Material, Labour & Overhead Budgets

↓

Cost of Production Budget

↓

Budgeted Income Statement

↓

Cash Budget

↓

Budgeted Balance Sheet

✓ Illustration (Simple Master Budget)

□ Given:

- Budgeted Sales = 10,000 units
- Selling Price = Rs100 per unit
- Variable Cost per unit = Rs60
- Fixed Cost = Rs 2,00,000

□ Step 1: Sales Budget

$$\begin{array}{rclclcl} \text{Sales} & & = & & 10,000 & & \times & & 100 \\ & & & & & & & & \\ & & = & \text{Rs}10,00,000 & & & & & \end{array}$$

□ Step 2: Cost Budget

$$\begin{array}{rclclcl} \text{Variable} & & \text{Cost} & & = & & 10,000 & & \times & & 60 \\ & & & & & & & & & & \\ & & = & \text{Rs}6,00,000 & & & & & & & \end{array}$$

Fixed Cost = Rs2,00,000

Total Cost = Rs 8,00,000

□ Step 3: Budgeted Income Statement

Particulars	Amount (Rs)
Sales	10,00,000
Less: Variable Cost	6,00,000
Contribution	4,00,000
Less: Fixed Cost	2,00,000
Profit	2,00,000

□ Features of Master Budget

A **Master Budget** is the overall financial plan of an organization. It summarizes all functional budgets into one comprehensive statement. Its main features are as follows:

Comprehensive in Nature

It combines all individual budgets such as:

- Sales Budget
- Production Budget
- Purchase Budget
- Labour Budget
- Cash Budget

Thus, it provides a complete financial picture.

Summary of Functional Budgets

The master budget is a consolidated summary of all operating and financial budgets prepared by different departments.

Prepared for a Specific Period

It is prepared for a definite time period such as:

- Monthly
- Quarterly
- Annually

Includes Operating and Financial Budgets

It consists of:

- Operating Budgets (sales, production, materials, etc.)
- Financial Budgets (cash budget, income statement, balance sheet)

Based on Sales Forecast

The master budget starts with the sales budget, as all other budgets depend on expected sales.

Helps in Planning and Control

It acts as a tool for:

- Planning business activities
- Controlling costs
- Monitoring performance

Shows Expected Profit and Financial Position

It includes:

- Budgeted Income Statement
- Budgeted Balance Sheet

Thus, it shows expected profitability and financial condition.

Improves Coordination

It ensures coordination between different departments of the organization.

Flexible and Adjustable

It may be revised if there are changes in:

- Market conditions
- Production levels
- Business environment

Management Accounting

A Master Budget is a comprehensive and consolidated financial plan that integrates all departmental budgets to present the overall financial position and performance of a business.

□ Advantages

A **Master Budget** is the overall financial plan of an organization. It combines all functional budgets and provides a complete view of business operations. Its major advantages are:

1 Comprehensive Planning

It provides a complete plan covering:

- Sales
- Production
- Purchases
- Labour
- Cash
- Financial position

This ensures systematic planning of all activities.

2 Better Coordination

It coordinates activities among different departments such as:

- Sales
- Production
- Purchase
- Finance

All departments work toward common goals.

3 Effective Control

Actual performance can be compared with the master budget to:

- Identify deviations
- Take corrective actions
- Control costs

4 Improves Decision-Making

It provides reliable financial information for decisions related to:

- Expansion
- Investment
- Pricing
- Borrowing

5 Helps in Profit Planning

Since it includes the budgeted income statement, it helps management estimate:

Management Accounting

- Expected revenue
- Expected costs
- Expected profit

Facilitates Cash Management

By including the cash budget, it helps ensure:

- Adequate liquidity
- Proper cash flow management

Performance Evaluation

It sets targets for departments and managers, helping in:

- Performance measurement
- Responsibility accounting

Enhances Financial Discipline

Encourages careful planning and responsible use of resources.



A Master Budget is a powerful tool that improves planning, coordination, control, and overall financial management of a business.

×Limitations

Although a **Master Budget** is an effective planning and control tool, it has certain limitations.

Based on Estimates

The master budget depends on forecasts such as:

- Sales estimates
- Cost estimates
- Production levels

If these estimates are inaccurate, the entire budget may become unreliable.

Time-Consuming and Costly

Preparation of a master budget requires:

- Detailed data collection
- Coordination between departments
- Skilled personnel

This makes it expensive and time-consuming.

Complex in Nature

Since it combines many functional budgets, it can become complicated and difficult to understand.

Rigid in Nature

Once prepared, it may not easily adjust to sudden changes in:

- Market demand
- Economic conditions
- Business environment

Depends on Coordination

If departments do not cooperate properly, the master budget may fail.

May Create Pressure on Employees

Unrealistic targets may:

- Demotivate employees
- Create stress
- Reduce efficiency

Cannot Predict Unexpected Events

It cannot fully account for:

- Economic recession
- Natural disasters
- Sudden market disruptions

☐

While the Master Budget provides a comprehensive financial plan, its effectiveness depends on accurate forecasting, proper coordination, and flexibility.

☐ **In Simple Words**

A Master Budget is the final and complete financial plan that summarizes all budgets of a business.

Integrated Master Budget Problem

(Sales + Production + Purchase + Budgeted Income Statement)

Problem

A company provides the following data for the month of April:

☐ **Sales Forecast**

- Sales = **10,000 units**
- Selling Price = **Rs100 per unit**

☐ **Inventory Policy (Finished Goods)**

- Opening Stock = 2,000 units
- Closing Stock = 3,000 units

☐ **Material Requirement**

Management Accounting

- Each unit requires **4 kg of Material A**
- Opening Stock of Material = 5,000 kg
- Closing Stock of Material = 6,000 kg
- Cost per kg = Rs20

☐ Other Costs

- Direct Labour per unit = Rs15
- Variable Factory Overhead per unit = Rs10
- Fixed Factory Overhead = Rs1,00,000
- Selling & Admin Expenses (Fixed) = Rs50,000

Prepare:

☐ 1	Sales	Budget
☐ 2	Production	Budget
☐ 3	Purchase	Budget
☐ 4	Budgeted Income Statement	

☐ STEP 1: Sales Budget

Sales Revenue =
 $10,000 \times \text{Rs}100 = \text{Rs}10,00,000$

☐ STEP 2: Production Budget

Production = Sales + Closing Stock - Opening Stock
= 10,000 + 3,000 - 2,000
= **11,000 units**

☐ STEP 3: Material Requirement

Material Required for Production:

$11,000 \times 4 \text{ kg} = 44,000 \text{ kg}$

☐ STEP 4: Purchase Budget

Purchases = Requirement + Closing Stock - Opening Stock
= 44,000 + 6,000 - 5,000
= **45,000 kg**
Purchase Cost =
 $45,000 \times \text{Rs}20 = \text{Rs}9,00,000$

☐ **STEP 5: Cost Calculation**

☐ **Direct Material Cost (Used)**

$$44,000 \times 20 = ₹8,80,000$$

☐ **Direct Labour**

$$11,000 \times 15 = ₹1,65,000$$

☐ **Variable Factory OH**

$$11,000 \times 10 = ₹1,10,000$$

☐ **Fixed Factory OH**

₹1,00,000

□ STEP 6: Budgeted Income Statement

Particulars	Amount (₹)
Sales	10,00,000
Less: Cost of Production	
Direct Material	8,80,000
Direct Labour	1,65,000
Variable Factory OH	1,10,000
Fixed Factory OH	1,00,000
Total Production Cost	12,55,000
Add: Selling & Admin (Fixed)	50,000
Total Cost	13,05,000
Profit / (Loss)	(3,05,000)

Problem 1 (Sales–Production–Purchase–Cash–Profit)

A company provides the following data for June:

□ Sales Forecast

- 15,000 units
- Selling Price = ₹120 per unit
- 40% cash sales, 60% credit sales (credit collected next month)

□ Inventory Policy (Finished Goods)

- Opening Stock = 3,000 units
- Closing Stock = 4,000 units

Management Accounting

□ Material Requirement

- Each unit requires 5 kg
- Opening Stock of Material = 8,000 kg
- Closing Stock Required = 10,000 kg
- Cost per kg = Rs18
- 50% purchases paid in same month, 50% next month

□ Other Costs

- Direct Labour = Rs20 per unit
- Variable OH = Rs15 per unit
- Fixed OH = Rs1,50,000
- Selling & Admin (Fixed) = Rs1,00,000

□ STEP 1: Sales Budget

Sales	Revenue	=
$15,000 \times 120 =$	Rs18,00,000	

□ STEP 2: Production Budget

Production				=
15,000	+	4,000	-	3,000
= 16,000 units				

□ STEP 3: Material Requirement

$16,000 \times 5 \text{ kg} = 80,000 \text{ kg}$

□ STEP 4: Purchase Budget

Purchases				=
80,000	+	10,000	-	8,000
= 82,000 kg				
Purchase		Cost		=
$82,000 \times 18 =$		Rs14,76,000		

Management Accounting

□ STEP 5: Cost of Production

Material	Used	=
$80,000 \times 18 = 14,40,000$		
Labour		=
$16,000 \times 20 = 3,20,000$		
Variable	OH	=
$16,000 \times 15 = 2,40,000$		
Fixed OH = 1,50,000		
Total Production Cost = Rs21,50,000		
Add Selling & Admin = 1,00,000		
Total Cost = Rs22,50,000		

□ STEP 6: Budgeted Profit

Sales	=	18,00,000
Total Cost = 22,50,000		
□ Loss = Rs4,50,000		

✓ Problem 2 (Multi-Product Master Budget)

A company produces Products A and B.

□ Sales Forecast

Product	Units	Selling Price
A	8,000	Rs150
B	6,000	Rs100

□ Inventory Policy

Opening Stock:

- A = 1,000
- B = 800

Closing Stock:

- A = 1,500
- B = 1,000

□ Material Requirement

Product	Material per Unit
---------	-------------------

Management Accounting

A	4 kg
B	3 kg

Opening	Material	=	6,000	kg
Closing	Material	=	8,000	kg
Cost per kg = Rs 25				

❑ Other Costs

- Labour = Rs30 per unit (A), Rs20 per unit (B)
- Variable OH = Rs10 per unit
- Fixed OH = Rs2,00,000
- Admin Expenses = Rs1,20,000

□ STEP 1: Sales Budget

$$A = 8,000 \times 150 = 12,00,000$$
$$B = 6,000 \times 100 = 6,00,000$$

Total Sales = Rs18,00,000

□ STEP 2: Production Budget

$$A = 8,000 + 1,500 - 1,000 = 8,500$$
$$B = 6,000 + 1,000 - 800 = 6,200$$

□ STEP 3: Material Requirement

$$A = 8,500 \times 4 = 34,000 \text{ kg}$$
$$B = 6,200 \times 3 = 18,600 \text{ kg}$$

Total = 52,600 kg

❑ STEP 4: Purchase Budget

Purchases =

$$52,600 + 8,000 - 6,000$$
$$= 54,600 \text{ kg}$$

Purchase	Cost	=
100 units @ \$10	1000	
200 units @ \$12	2400	
300 units @ \$15	4500	
400 units @ \$18	7200	
500 units @ \$20	10000	
600 units @ \$22	13200	
700 units @ \$25	17500	
800 units @ \$28	22400	
900 units @ \$30	27000	
1000 units @ \$32	32000	
1100 units @ \$35	38500	
1200 units @ \$38	45600	
1300 units @ \$40	52000	
1400 units @ \$42	58800	
1500 units @ \$45	67500	
1600 units @ \$48	76800	
1700 units @ \$50	85000	
1800 units @ \$52	93600	
1900 units @ \$55	104500	
2000 units @ \$58	116000	
2100 units @ \$60	126000	
2200 units @ \$62	136400	
2300 units @ \$65	149500	
2400 units @ \$68	163200	
2500 units @ \$70	175000	
2600 units @ \$72	187200	
2700 units @ \$75	202500	
2800 units @ \$78	218400	
2900 units @ \$80	231000	
3000 units @ \$82	246000	
3100 units @ \$85	263500	
3200 units @ \$88	281600	
3300 units @ \$90	297000	
3400 units @ \$92	313600	
3500 units @ \$95	332500	
3600 units @ \$98	352800	
3700 units @ \$100	370000	
3800 units @ \$102	389600	
3900 units @ \$105	410250	
4000 units @ \$108	432000	
4100 units @ \$110	450750	
4200 units @ \$112	470400	
4300 units @ \$115	492750	
4400 units @ \$118	516000	
4500 units @ \$120	540000	
4600 units @ \$122	564800	
4700 units @ \$125	590250	
4800 units @ \$128	617200	
4900 units @ \$130	644750	
5000 units @ \$132	672000	
5100 units @ \$135	700800	
5200 units @ \$138	730160	
5300 units @ \$140	759600	
5400 units @ \$142	789120	
5500 units @ \$145	818750	
5600 units @ \$148	848480	
5700 units @ \$150	878250	
5800 units @ \$152	908080	
5900 units @ \$155	937950	
6000 units @ \$158	967800	
6100 units @ \$160	997680	
6200 units @ \$162	1027600	
6300 units @ \$165	1057560	
6400 units @ \$168	1087568	
6500 units @ \$170	1117600	
6600 units @ \$172	1147664	
6700 units @ \$175	1177750	
6800 units @ \$178	1207856	
6900 units @ \$180	1237980	
7000 units @ \$182	1268120	
7100 units @ \$185	1298275	
7200 units @ \$188	1328448	
7300 units @ \$190	1358630	
7400 units @ \$192	1388824	
7500 units @ \$195	1419030	
7600 units @ \$198	1449248	
7700 units @ \$200	1479480	
7800 units @ \$202	1509728	
7900 units @ \$205	1539990	
8000 units @ \$208	1570264	
8100 units @ \$210	1600560	
8200 units @ \$212	1630872	
8300 units @ \$215	1661190	
8400 units @ \$218	1691520	
8500 units @ \$220	1721860	
8600 units @ \$222	1752216	
8700 units @ \$225	1782580	
8800 units @ \$228	1812952	
8900 units @ \$230	1843330	
9000 units @ \$232	1873712	
9100 units @ \$235	1904100	
9200 units @ \$238	1934496	
9300 units @ \$240	1964900	
9400 units @ \$242	1995312	
9500 units @ \$245	2025730	
9600 units @ \$248	2056152	
9700 units @ \$250	2086580	
9800 units @ \$252	2117016	
9900 units @ \$255	2147460	
10000 units @ \$258	2177912	
10100 units @ \$260	2208370	
10200 units @ \$262	2238832	

$$54,600 \times 25 = \text{Rs} \mathbf{13,65,000}$$

□ STEP 5: Budgeted Income Statement (Summary)

Total Material Used = $52,600 \times 25 = 13,15,000$

Labour:

A = 8,500 × 30 = 2,55,000

B = $6,200 \times 20 = 1,24,000$

Total Labour = 3,79,000

Variable OH = $(8,500 + 6,200) \times 10 = 1,47,000$

Fixed OH = 2,00,000

Admin = 1,20,000

Total Cost ≈ **Rs21,61,000**

Sales = 18,00,000

□ **Loss ≈ Rs3,61,000**

Budgetary Control – Benefits

✓ Meaning

Budgetary Control is a system of managing and controlling business activities by preparing budgets and comparing actual performance with budgeted figures to take corrective action.

Objectives of Budgetary Control

Budgetary Control is a system of controlling costs and operations by preparing budgets and comparing actual results with budgeted figures. Its main objectives are as follows:

1 Planning of Business Activities

To plan future operations in advance by:

- Setting financial targets
- Forecasting income and expenses
- Anticipating future problems

2 Coordination between Departments

To ensure proper coordination among:

- Sales
- Production
- Purchase
- Finance

So that all departments work towards common goals

Cost Control

To control costs by:

- Setting expenditure limits
- Comparing actual expenses with budgeted figures
- Taking corrective action

Performance Evaluation

To measure performance by:

- Comparing actual results with budgets
- Identifying variances
- Fixing responsibility

Efficient Utilization of Resources

To ensure proper use of:

- Labour
- Materials
- Machinery
- Financial resources

Profit Maximization

To improve profitability through:

- Better planning
- Cost reduction
- Efficient operations

Early Detection of Problems

To identify deviations early and take timely corrective measures.

Financial Discipline

To encourage departments to work within approved limits and avoid overspending.

☐ **In Simple Words**

The main objective of Budgetary Control is to plan, coordinate, and control business activities to achieve organizational goals efficiently.

☐ **Benefits of Budgetary Control**

Better Planning

It forces management to:

- Plan future activities
- Set clear objectives

Management Accounting

- Anticipate problems

This improves overall business efficiency.

Effective Cost Control

By comparing actual results with budgeted figures, management can:

- Detect variances
- Identify waste
- Control unnecessary expenses

Improves Coordination

It coordinates activities between departments such as:

- Sales
- Production
- Purchase
- Finance

Ensures smooth workflow.

Performance Evaluation

Budgetary control helps in:

- Measuring performance
- Fixing responsibility
- Motivating employees

It promotes accountability.

Efficient Utilization of Resources

Helps in proper use of:

- Money
- Labour
- Materials
- Machinery

Avoids idle capacity and wastage.

Enhances Decision-Making

Provides reliable financial data for:

- Expansion decisions
- Pricing decisions
- Investment planning

Encourages Financial Discipline

Departments work within allocated limits, preventing overspending.

Improves Profitability

Better control and planning lead to:

- Reduced costs
- Increased efficiency
- Higher profits

Early Detection of Problems

Variances highlight issues early, allowing timely corrective action.

Motivates Management and Staff

Clear targets encourage:

- Goal-oriented work
- Improved performance

□

Budgetary Control improves planning, coordination, cost control, performance evaluation, and overall financial efficiency of an organization.

Limitations of Budgetary Control

Although **Budgetary Control** is an effective tool for planning and control, it has certain limitations.

Based on Estimates

Budgetary control depends on forecasts and assumptions.

If estimates are inaccurate, the entire system may become unreliable.

Time-Consuming and Costly

Preparation and implementation require:

- Detailed data collection
- Continuous monitoring
- Skilled personnel

This makes it expensive and time-consuming.

Rigid in Nature

Budgets may become rigid and may not easily adjust to sudden changes in:

- Market demand
- Economic conditions
- Business environment

May Create Pressure on Employees

Unrealistic targets may:

Management Accounting

- Demotivate employees
- Create stress
- Lead to dissatisfaction

Requires Proper Coordination

Lack of cooperation between departments can lead to failure of budgetary control.

Difficult to Classify Costs Accurately

Improper classification of:

- Fixed costs
- Variable costs

may reduce effectiveness.

Not a Substitute for Management

Budgetary control is only a tool.

Success depends on effective management and proper implementation.

Cannot Predict Unexpected Events

It cannot fully account for:

- Economic recession
- Natural disasters
- Sudden policy changes



Budgetary Control is a useful planning and control mechanism, but its success depends on realistic estimates, proper coordination, and flexibility.

Difference between Budget and Budgetary Control

Both **Budget** and **Budgetary Control** are related to planning and control, but they are different concepts.

Comparison Table

Basis	Budget	Budgetary Control
Meaning	A financial plan prepared for a future period	A system of controlling activities through budgets
Nature	A statement or document	A process or system
Purpose	To estimate future income and expenses	To compare actual results with budget and take corrective action

Management Accounting

Scope	Limited to a specific plan	Wider scope – includes preparation, implementation, and control
Time	Prepared before the period begins	Continuous process during the period
Focus	Planning	Planning + Control
Objective	Set targets	Achieve targets through monitoring

Function Provides targets Measures performance and corrects deviations

□ Key Difference in Simple Words

- A **Budget** is a plan.
- **Budgetary Control** is the system that ensures the plan is followed properly.

□ Example

If a company prepares a budget estimating sales of ₹10,00,000, Budgetary control will compare actual sales with ₹10,00,000 and analyze any difference.

□

A Budget is a financial plan, whereas Budgetary Control is the process of implementing and controlling that plan.

UNIT IV – Budget and Budgetary Control

5 Mark Questions

Q.No	Question	Level
1	Define Budget.	K1
2	What is Budgetary Control?	K1
3	State the advantages of Budgetary Control.	K2
4	What is Flexible Budget?	K1
5	What is Master Budget?	K1

8 Mark Questions

Q.No	Question	Level
1	Explain the concept and objectives of Budgetary Control.	K2
2	Explain preparation of Cash Budget.	K3
3	Explain Flexible Budget with example.	K3
4	Discuss different types of budgets.	K2
5	Explain preparation of Master Budget.	K3

Management Accounting

Unit V Marginal Cost

Marginal Costing: Meaning - Features - Marginal Costing vs Absorption Costing

- Fixed Cost, Variable Cost and Semi Variable Cost- Contribution- Marginal Cost

Equation- P/V Ratio - Break Even Point - Margin of Safety - Cost- Volume

Profits Analysis. Decision Making: Selection of a Product Mix-Make or Buy

Decision -Discontinuance of a product line-Change or Status quo- Limiting

Factor or Key Factor.

Marginal Costing – Meaning

✓Meaning

Marginal Costing is a costing technique in which only **variable costs** are charged to the cost of production, while **fixed costs** are treated as period costs and written off against profit.

□ Simple Definition

Marginal Costing is a method of costing in which only variable costs are considered for product costing and fixed costs are treated as expenses of the period.

□ Key Idea of Marginal Costing

Total Cost =

Variable Cost + Fixed Cost

But under marginal costing:

- Only **Variable Cost** is included in product cost
- **Fixed Cost** is not included in product cost

□ Important Terms

□ Marginal Cost

The cost of producing **one additional unit** of output.

□ Contribution

Contribution=Sales-VariableCost

Contribution helps to cover fixed cost and earn profit.

□ Basic Formula

Profit=Contribution-Fixed Cost

Profit = Contribution - Fixed Cost

Management Accounting

✓ Example

Selling Price	per unit	=	Rs100
Variable Cost	per unit	=	Rs60

Fixed Cost = Rs2,00,000

Contribution per unit =

$$100 - 60 = \text{Rs}40$$

If 10,000 units are sold:

$$\text{Total Contribution} = 10,000 \times 40 = \text{Rs}4,00,000$$

Profit =

$$4,00,000 - 2,00,000 = \text{Rs}2,00,000$$

□ Main Focus of Marginal Costing

Main Focus of Marginal Costing

Marginal Costing mainly focuses on **variable costs, contribution, and decision-making**. Its core emphasis areas are explained below:

1 Separation of Costs

The primary focus is on dividing costs into:

- **Variable Costs** (change with output)
- **Fixed Costs** (remain constant)

This classification is the foundation of marginal costing.

2 Variable Costing of Products

Only **variable costs** are charged to the product.

Fixed costs are treated as **period costs** and charged to the Profit & Loss Account.

3 Contribution Analysis

Marginal costing focuses on **Contribution**:

$$\text{Contribution} = \text{Sales} - \text{Variable Cost}$$
$$\text{Contribution} = \text{Sales} - \text{Variable Cost}$$

Contribution helps to:

- Cover fixed costs
- Generate profit

4 Break-Even Analysis

It helps in calculating:

- Break-even point

Management Accounting

- Margin of safety
- Profit-volume ratio

5 Profit Planning

The main formula used:

$$\text{Profit} = \text{Contribution} - \text{Fixed Cost}$$
$$\text{Profit} = \text{Contribution} - \text{Fixed Cost}$$

This helps in estimating profit at different sales levels.

6 Managerial Decision-Making

Marginal costing is useful for decisions such as:

- Pricing decisions
- Make or buy decisions
- Accepting special orders
- Product mix decisions

□ In Simple Words

The main focus of Marginal Costing is on variable costs and contribution to help management analyze profitability and make better business decisions.

□ In Simple Words

Marginal Costing focuses on variable costs and contribution to help management make decisions about pricing, production, and profitability.

Marginal Costing vs Absorption Costing

Both **Marginal Costing** and **Absorption Costing** are methods of costing, but they differ in treatment of fixed costs and profit calculation.

□ Comparison Table

Basis	Marginal Costing	Absorption Costing
Meaning	Only variable costs are charged to products	Both fixed and variable costs are charged to products
Treatment of Fixed Cost	Treated as period cost	Included in product cost
Product Cost Includes	Direct material + Direct labour + Variable overhead	Direct material + Direct labour + Variable OH +

Management Accounting

		Fixed OH
Stock Valuation	Valued at variable cost only	Valued at total cost (including fixed OH)
Profit Calculation	Based on contribution	Based on gross profit
Effect of Closing Stock	No effect on profit (fixed cost not included)	Profit affected by closing stock
Usefulness	Useful for decision-making	Useful for financial reporting
Break-Even Analysis	Easily calculated	Not directly used

□ Key Formula Difference

□ Marginal Costing

Contribution = Sales – Variable Cost

Profit = Contribution – Fixed Cost

□ Absorption Costing

Profit = Sales – Total Cost (Fixed + Variable)
 $\text{Profit} = \text{Sales} - \text{Total Cost (Fixed + Variable)}$

□ Simple Example

Suppose:

- Selling Price = Rs100
- Variable Cost = Rs60
- Fixed Cost = Rs2,00,000
- Units Produced = 10,000
- Units Sold = 8,000

Under Marginal Costing

Profit					=
(8,000	×	40)	–	2,00,000	
=		3,20,000	–	2,00,000	
= Rs1,20,000					

Under Absorption Costing

Fixed cost per unit = 2,00,000 ÷ 10,000 = Rs20

Total cost per unit = 60 + 20 = Rs80

Management Accounting

$$\begin{array}{rclcl} \text{Profit} & & & & = \\ 8,000 & \times & (100 & - & 80) \\ = \text{Rs}1,60,000 \end{array}$$

☐ Profit differs because fixed cost is included in closing stock.

☐ Main Difference in Simple Words

- **Marginal Costing** focuses on variable cost and contribution.
- **Absorption Costing** includes both fixed and variable costs in product cost.

Fixed Cost, Variable Cost and Semi-Variable Cost

Understanding cost behaviour is very important in **marginal costing** and budgeting. Costs are generally classified into three main types:

Fixed Cost

☐ Meaning

A **Fixed Cost** is a cost that remains constant in total, regardless of changes in the level of production or sales within a relevant range.

☐ Key Characteristics

- ✓ Remains constant in total
- ✓ Does not change with output
- ✓ Per unit cost decreases as output increases

☐ Examples

- Rent
- Salary of manager
- Insurance
- Depreciation (straight-line method)
- Factory building rent

☐ Example

Fixed Cost = Rs1,00,000

Units Produced	Total Fixed Cost	Fixed Cost per Unit
10,000	1,00,000	Rs10

Management Accounting

20,000	1,00,000	Rs5
--------	----------	-----

- ☐ Total fixed cost remains same, but per unit decreases.

Variable Cost

☐ Meaning

A **Variable Cost** is a cost that changes directly and proportionately with the level of production.

☐ Key Characteristics

- ✓ Changes with output
- ✓ Per unit remains constant
- ✓ Zero when production is zero

☐ Examples

- Direct material
- Direct labour (piece-rate)
- Power (production-based)
- Packing cost

☐ Example

Variable Cost per unit = Rs20

Units Produced	Total Variable Cost	Variable Cost per Unit
10,000	2,00,000	Rs20
20,000	4,00,000	Rs20

- ☐ Total increases, per unit remains constant.

Semi-Variable Cost (Mixed Cost)

☐ Meaning

A **Semi-Variable Cost** is a cost that contains both fixed and variable elements.

Management Accounting

□ Key Characteristics

- ✓ Partly fixed
- ✓ Partly variable
- ✓ Increases with output but not proportionately

□ Examples

- Telephone bill (fixed line rent + usage charges)
- Electricity bill (minimum charge + usage charge)
- Maintenance cost
- Sales commission with fixed salary

□ Example

Telephone Bill = Rs5,000 fixed + Rs2 per unit

If 1,000 units produced:

Total cost = 5,000 + (2 × 1,000) = Rs7,000

□ Comparison Table

Basis	Fixed Cost	Variable Cost	Semi-Variable Cost
Behaviour	Constant in total	Changes with output	Partly fixed & partly variable
Per Unit Cost	Decreases with output	Constant	Varies
When Output = 0	Exists	Zero	Partly exists
Example	Rent	Raw material	Electricity

□ In Simple Words

- **Fixed Cost** → Does not change with output
- **Variable Cost** → Changes with output
- **Semi-Variable Cost** → Has both fixed and variable parts

Contribution and Marginal Cost – Equation

Contribution

□ Meaning

Contribution is the amount remaining after deducting **variable cost** from sales.

It contributes towards:

Management Accounting

- Covering fixed costs
- Earning profit

□ Contribution Formula

Contribution=Sales–Variable Cost

□ Contribution Per Unit

Contribution per Unit=Selling Price per Unit–Variable Cost per Unit

Contribution per Unit=Selling Price per Unit–Variable Cost per Unit

□ Example

Selling Price	=	Rs100
Variable Cost	=	Rs60
Contribution per unit	=	100 – 60 = Rs40

2 Marginal Cost

□ Meaning

Marginal Cost is the cost of producing one additional unit.

Under marginal costing, marginal cost = **Variable Cost**.

□ Marginal Cost Equation

Marginal Cost=Direct Material+Direct Labour+Variable Overheads

Marginal Cost=Direct Material+Direct Labour+Variable Overheads

□ Important Equation (Marginal Costing Equation)

Sales=Variable Cost+Fixed Cost+Profit

Or,

Sales–Variable Cost=Fixed Cost+Profit

Since,

Contribution=Sales–Variable Cost

Contribution=Sales–Variable Cost

Therefore,

Contribution=Fixed Cost+Profit

Management Accounting

□ Key Marginal Costing Equations

$$\boxed{1} \text{ Contribution} = \text{Sales} - \text{Variable Cost} \quad \boxed{2}$$

$$\text{Profit} = \text{Contribution} - \text{Fixed Cost}$$

$$\boxed{3} \text{ Contribution} = \text{Fixed Cost} + \text{Profit}$$

$$\boxed{4} \text{ Sales} = \text{Variable Cost} + \text{Fixed Cost} + \text{Profit}$$

□ In Simple Words

- Contribution is what remains after variable cost.
- It first covers fixed cost, then generates profit.
- Marginal cost = Variable cost.

P/V Ratio (Profit–Volume Ratio)

✓ Meaning

P/V Ratio (Profit–Volume Ratio) shows the relationship between **Contribution and Sales**. It indicates how much contribution is earned from each rupee of sales.

□ Definition

P/V Ratio is the ratio of Contribution to Sales.

□ Alternative Formula

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

$$\text{Contribution} = \text{Sales} - \text{Variable Cost}$$

$$\text{P/V Ratio} = \frac{\text{Sales} - \text{Variable Cost}}{\text{Sales}} \times 100$$

If contribution per unit and selling price per unit are given:

$$P/V \text{ Ratio} = \frac{\text{Contribution per Unit}}{\text{Selling Price per Unit}} \times 100$$

✓ Example 1

Selling Price per unit = Rs100

Variable Cost per unit = Rs60

Contribution per unit = Rs40

$$\text{P/V Ratio} = \frac{40}{100} \times 100 = 40\%$$

□ This means 40% of sales contributes towards fixed cost and profit.

□ Importance of P/V Ratio

Importance of P/V Ratio (Profit–Volume Ratio)

The **P/V Ratio** is one of the most important concepts in marginal costing. It shows the relationship between **contribution and sales** and helps in profit planning and decision- making.

📌1 Measures Profitability

A higher P/V ratio indicates:

- Higher contribution per rupee of sales
- Better profitability

Lower P/V ratio means lower profit margin.

📌2 Helps in Break-Even Analysis

It is used to calculate **Break-Even Point (BEP)**:

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

📌3 Assists in Profit Planning

Profit can be calculated using:

$\text{Profit} = \text{Sales} \times P/V \text{ Ratio} - \text{Fixed Cost}$

This helps in estimating profit at different sales levels.

📌4 Useful in Pricing Decisions

Management can analyze:

- Impact of price changes
- Effect of cost changes
- Profitability of special orders

📌5 Helps in Comparing Products

Products with higher P/V ratio are more profitable and may be preferred.

📌6 Assists in Sales Mix Decisions

When multiple products are sold, P/V ratio helps in deciding the most profitable product mix.

📌7 Measures Effect of Cost Changes

It shows how changes in:

- Selling price
- Variable cost

affect profitability.

□ In Simple Words

The P/V Ratio helps measure profitability, calculate break-even point, plan profits, and make better managerial decisions.

□ Related Formulas

$$\boxed{1} \text{ Contribution} = \text{Sales} \times \text{P/V Ratio}$$

2 Break-Even Point (in Sales Value)

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

⚠ If P/V Ratio is given in percentage:

$$\text{BEP} = \frac{\text{Fixed Cost}}{\text{P/V Ratio} \div 100}$$

3 Profit

$$\text{Profit} = \text{Sales} \times \text{P/V Ratio} - \text{Fixed Cost}$$

Or,

$$\text{Profit} = \text{Contribution} - \text{Fixed Cost}$$

□ Interpretation

- Higher P/V Ratio → Higher profitability
- Lower P/V Ratio → Lower profitability

□ In Simple Words

P/V Ratio shows how much contribution is earned from sales and helps in analyzing profitability and break-even point.

Break-Even Point (BEP)

✓ Meaning

The **Break-Even Point (BEP)** is the level of sales at which **total revenue equals total cost**.

At this point:

- Profit = 0

Management Accounting

- Loss = 0

The business only covers its costs.

□ Definition

Break-Even Point is the point where total contribution equals fixed cost.

□ Basic Concept

At BEP:

Contribution = Fixed Cost

□ Formulas of Break-Even Point

1 Break-Even Point (in Units)

$$BEP (Units) = \frac{Fixed\ Cost}{Contribution\ per\ Unit}$$

Where,

Contribution per Unit = Selling Price - Variable Cost

2 Break-Even Point (in Sales Value)

$$BEP (Sales) = \frac{Fixed\ Cost}{P/V\ Ratio}$$

(If P/V Ratio is in percentage, divide it by 100)

Example

Selling	Price	per	unit	=	Rs100
Variable	Cost	per	unit	=	Rs60
Fixed Cost = Rs2,00,000					
Contribution		per	unit	=	
100 - 60 = Rs40					

□ BEP (Units)

◆ BEP (Units)

$$= \frac{2,00,000}{40} = 5,000\ units$$

◆ BEP (Sales Value)

$$= 5,000 \times 100 = ₹5,00,000$$

Management Accounting

□ Importance of BEP

The **Break-Even Point (BEP)** is very important in marginal costing and managerial decision-making. It helps a business understand the minimum sales required to avoid loss.

1 Determines Minimum Sales Level

BEP shows the minimum level of sales required to:

- Cover all fixed and variable costs
- Avoid losses

2 Helps in Profit Planning

After reaching BEP, any additional sales generate profit.

It helps management plan target sales for desired profit.

3 Assists in Pricing Decisions

Management can study how changes in:

- Selling price
- Variable cost

affect the break-even level.

4 Measures Business Risk

A higher BEP indicates:

- Higher fixed costs
- Greater business risk

A lower BEP means safer business operations.

5 Useful in Cost Control

It helps analyze the impact of:

- Increase in fixed costs
- Reduction in variable costs

6 Helps in Decision-Making

Useful in decisions like:

- Make or buy
- Expansion plans
- Introducing a new product

7 Performance Evaluation Tool

Actual sales can be compared with BEP to measure business safety and efficiency.

Management Accounting

☐ In Simple Words

The Break-Even Point helps a business know how much it must sell to avoid loss and start earning profit.

☐ In Simple Words

Break-Even Point tells us how much we must sell to cover all costs without making a profit or loss.

Margin of Safety (MOS)

✓ Meaning

Margin of Safety is the excess of **actual sales over break-even sales**. It shows how much sales can fall before the business starts incurring a loss.

☐ Definition

Margin of Safety is the difference between Actual Sales and Break-Even Sales.

☐ Formula

Margin of Safety (in Sales Value)

MOS=Actual Sales–Break-Even Sales

Margin of Safety (in Units)

MOS (Units)=Actual Sales (Units)–BEP (Units)

Margin of Safety Ratio

MOS%= $\frac{\text{Margin of Safety}}{\text{Actual Sales}} \times 100$

☐ Example

Selling Price	per unit	=	Rs100
Variable Cost	per unit	=	Rs60
Fixed Cost		=	Rs2,00,000

Actual Sales = 8,000 units

☐ Step 1: Calculate BEP

Contribution per unit = 100 – 60 = Rs40

BEP=2,00,000/ 40 =5,000 units

☐ Step 2: Margin of Safety

MOS=8,000–5,000=3,000 units

MOS (in value) = 3,000 × 100 = Rs3,00,000

Management Accounting

□ Importance of Margin of Safety

Margin of Safety (MOS) shows the excess of actual sales over break-even sales. It indicates the safety level of a business.

Measures Safety Level

MOS shows how much sales can fall before the business starts making losses.

□ Higher MOS = Greater safety

□ Lower MOS = Higher risk

Indicates Business Risk

A small margin of safety means the business is operating close to break-even point, which is risky.

A large margin means the business is stable and secure.

Helps in Profit Planning

Since:

$\text{Profit} = \text{Margin of Safety} \times \text{P/V Ratio}$

MOS directly helps in estimating profit.

Assists in Decision-Making

Management can use MOS to decide:

- Whether to expand production
- Whether to reduce prices
- Whether to introduce a new product

Useful for Cost Control

If MOS is low, management may:

- Reduce fixed costs
- Increase selling price
- Reduce variable cost

Performance Evaluation Tool

It helps evaluate whether the company is operating safely above the break-even level.

□ In Simple Words

Margin of Safety tells us how secure the business is and how much sales can decline before losses begin.

□ Interpretation

- **High MOS** → Business is safe

Management Accounting

- **Low MOS** – Business is risky

□ In Simple Words

Margin of Safety tells us how much sales can decrease before the company starts making losses.

Margin of Safety – Numerical Problems

✓ Problem 1 (Basic Level)

Given:

Selling	Price	per	unit	=	₹80
Variable	Cost	per	unit	=	₹50
Fixed	Cost		=		₹3,00,000

Actual Sales = 12,000 units

□ Step 1: Contribution per Unit

Contribution = $80 - 50 = ₹30$

□ Step 2: Break-Even Point (Units)

$$BEP = \frac{3,00,000}{30} = 10,000 \text{ units}$$

□ Step 3: Margin of Safety (Units)

$$MOS = 12,000 - 10,000 = 2,000 \text{ units}$$

□ Step 4: Margin of Safety (Value)

$$2,000 \times 80 = ₹1,60,000$$

□ Step 5: Profit

$$\text{Profit} = MOS \times \text{Contribution per unit} = 2,000 \times 30 = ₹60,000$$

✓ Final Answer:

BEP	=	10,000	units
MOS	=	2,000	units (₹1,60,000)
Profit	=	₹60,000	

✓ Problem 2 (With P/V Ratio Given)

Given:

Fixed	Cost	=	₹2,50,000
P/V	Ratio	=	40%
Actual Sales	=	₹10,00,000	

Management Accounting

□ Step 1: Break-Even Sales

$$BEP = \frac{2,50,000}{40\%}$$

$$\frac{2,50,000}{0.40} = ₹6,25,000$$

□ Step 2: Margin of Safety

$$MOS = 10,00,000 - 6,25,000 = ₹3,75,000$$

□ Step 3: Profit

$$\text{Profit} = MOS \times P/V \text{ Ratio}$$

$$= 3,75,000 \times 40\% = ₹1,50,000$$

✓ Final Answer:

$$BEP = ₹6,25,000$$

$$MOS = ₹3,75,000$$

$$\text{Profit} = ₹1,50,000$$

□ Important Relationships

$$1 \text{ Profit} = MOS \times P/V \text{ Ratio}$$

$$2 \text{ MOS} = \text{Profit} \div P/V \text{ Ratio}$$

$$3 \text{ BEP} = \text{Fixed Cost} \div P/V \text{ Ratio}$$

Comprehensive Marginal Costing Problem

✓ Problem

A company provides the following information:

- Selling Price per unit = ₹200
- Variable Cost per unit = ₹120
- Fixed Cost = ₹8,00,000 per year
- Budgeted Sales = 15,000 units

You are required to calculate:

- 1 Contribution per unit and P/V Ratio
- 2 Break-Even Point (in units and in sales value)
- 3 Margin of Safety (in units and value)
- 4 Profit at budgeted sales
- 5 Sales required to earn a profit of ₹4,00,000
- 6 New Break-Even Point if fixed cost increases by ₹2,00,000

Step 1: Contribution per Unit

Contribution = $200 - 120 = ₹80$

Step 2: P/V Ratio

P/V Ratio = $\frac{80}{200} \times 100 = 40\%$

Step 3: Break-Even Point

□ (a) BEP in Units

BEP = $8,00,000 / 80 = 10,000$ units

(b) BEP in Sales Value

$10,000 \times 200 = ₹20,00,000$

Step 4: Margin of Safety

Budgeted Sales = 15,000 units

MOS = $15,000 - 10,000 = 5,000$ units

MOS (Value):

$5,000 \times 200 = ₹10,00,000$

Step 5: Profit at Budgeted Sales

Profit = MOS $\times$ Contribution per unit

$= 5,000 \times 80 = ₹4,00,000$

(Or)

Profit = Sales $\times$ P/V Ratio - Fixed Cost

$= 30,00,000 \times 40\% - 8,00,000$

$= 30,00,000 \times 40\% - 8,00,000$

$= 12,00,000 - 8,00,000 = ₹4,00,000$

Step 6: Sales Required to Earn ₹4,00,000 Profit

Required Sales = Fixed Cost + Target Profit / P/V Ratio

$= 8,00,000 + 4,00,000 / 40\%$

$= 12,00,000 / .40 = ₹30,00,000$

Units Required:

$30,00,000 \div 200 = 15,000$ units

Step 7: New BEP (If Fixed Cost = ₹10,00,000)

New BEP = $10,00,000 / 80 = 12,500$ units

Summary of Answers

Particulars	Answer
Contribution per unit	₹80
P/V Ratio	40%
BEP (Units)	10,000
BEP (Sales)	₹20,00,000
Margin of Safety	5,000 units
Profit	₹4,00,000

Sales for ₹4,00,000 Profit ₹30,00,000

New BEP (Higher FC) 12,500 units

Cost–Volume–Profit (CVP) Analysis

✓ Meaning

Cost–Volume–Profit (CVP) Analysis is a technique used to study the relationship between:

- **Cost**
- **Volume (Sales/Output)**
- **Profit**

It helps in understanding how changes in sales volume, costs, and price affect profit.

□ Definition

CVP Analysis examines how changes in cost and volume influence a company's operating profit.

Basic Concept

Sales = Variable Cost + Fixed Cost + Profit

Or,

Contribution = Fixed Cost + Profit

Where:

Contribution=Sales–Variable Cost

Main Components of CVP Analysis

Selling Price

Price at which product is sold.

Variable Cost

Cost that changes with output.

Fixed Cost

Cost that remains constant.

Sales Volume

Number of units sold.

Contribution

Difference between sales and variable cost.

Important CVP Formulas

Contribution per Unit

Selling Price–Variable Cost

P/V Ratio

Contribution/Sales×100

Break-Even Point (Units)

Fixed Cost/Contribution per Unit

Break-Even Point (Sales)

Fixed Cost/P/V Ratio

Target Sales (For Desired Profit)

Fixed Cost+Target Profit/Contribution per Unit

Margin of Safety

Actual Sales–Break-Even Sales

Main components of CVP Analysis are:

- Selling Price
- Variable Cost
- Fixed Cost
- Sales Volume
- Contribution
- P/V Ratio
- Break-Even Point

- Margin of Safety

Objectives of Cost–Volume–Profit (CVP) Analysis

Cost–Volume–Profit (CVP) Analysis is used to study the relationship between **cost, sales volume, and profit**. Its main objectives are as follows:

1 To Determine Break-Even Point

To calculate the level of sales at which:

- Total Revenue = Total Cost
- Profit = 0

This helps the firm avoid losses.

2 To Measure Profit at Different Sales Levels

CVP helps in estimating profit when:

- Sales increase
- Sales decrease
- Costs change

3 To Plan Target Profit

It helps in determining:

- Sales required to earn a desired profit
- Required output level for specific profit

4 To Analyze Effect of Cost Changes

It shows how changes in:

- Variable cost
- Fixed cost
- Selling price

affect profit and break-even point.

5 To Assist in Pricing Decisions

Management can analyze the impact of:

- Price increase or decrease
- Discounts
- Special orders

6 To Evaluate Business Risk

By analyzing margin of safety and break-even point, CVP helps assess:

- Risk level
- Stability of operations

To Support Managerial Decision-Making

Useful in decisions like:

- Expansion
- Product mix
- Make or buy
- Shutting down operations

In Simple Words

The main objective of CVP Analysis is to understand how changes in cost and sales volume affect profit and to help management make better decisions.

Assumptions of Cost–Volume–Profit (CVP) Analysis

CVP Analysis is based on certain assumptions. These assumptions simplify real business situations and help in calculating profit, break-even point, and margin of safety.

Costs Can Be Clearly Classified

All costs are divided into:

- Fixed Costs
- Variable Costs

No difficulty in classification is assumed.

Fixed Costs Remain Constant

Fixed costs remain constant within the **relevant range** of activity, regardless of changes in output.

Variable Cost Per Unit Remains Constant

Variable cost per unit does not change with the level of production.

Total variable cost changes in direct proportion to output.

Selling Price Remains Constant

The selling price per unit is assumed to remain unchanged, regardless of sales volume.

Production Equals Sales

It is assumed that:

- All units produced are sold
- There is no change in inventory

(Opening stock = Closing stock)

6 Efficiency and Productivity Remain Constant

There is no change in:

- Labour efficiency
- Production methods
- Technology

7 Single Product or Constant Sales Mix

- In single-product firms → Only one product is considered
- In multi-product firms → Sales mix remains constant

8 Linear Relationship between Cost and Volume

The relationship between:

- Cost and output
- Sales and output

is assumed to be linear (straight-line relationship).

In Simple Words

CVP analysis assumes that costs and prices remain stable, sales mix does not change, and all produced units are sold.

Importance of Cost–Volume–Profit (CVP) Analysis

Cost–Volume–Profit (CVP) Analysis is an important managerial tool used for planning and decision-making. It helps management understand how changes in cost and sales affect profit.

Helps in Determining Break-Even Point

CVP analysis helps calculate the minimum level of sales required to:

- Cover all costs
- Avoid losses

2 Assists in Profit Planning

It helps management estimate:

- Expected profit at different sales levels
- Sales required to earn a target profit

3 Useful in Pricing Decisions

CVP helps analyze the impact of:

- Increase or decrease in selling price
- Discounts and special offers

Measures Business Risk

By calculating:

- Break-even point
- Margin of safety

management can assess the risk level of the business.

Assists in Cost Control

It shows the effect of:

- Increase in fixed cost
- Reduction in variable cost

on profitability.

Helps in Decision-Making

CVP is useful in decisions such as:

- Make or buy
- Product mix
- Expansion plans
- Shutting down operations

Improves Financial Planning

It provides a clear understanding of cost behavior and profit structure, supporting better budgeting and forecasting.

In Simple Words

CVP Analysis helps management understand how profit changes with changes in sales and costs, and supports effective planning and decision-making.

Limitations of Cost–Volume–Profit (CVP) Analysis

Although CVP Analysis is a useful managerial tool, it has certain limitations because it is based on simplified assumptions.

Based on Unrealistic Assumptions

CVP assumes:

- Fixed costs remain constant
- Variable cost per unit remains constant
- Selling price remains constant

In reality, these may change.

Difficulty in Cost Classification

Accurate separation of costs into:

Management Accounting

- Fixed
- Variable

is difficult in practice, especially for semi-variable costs.

Assumes Linear Relationship

CVP assumes a straight-line relationship between:

- Cost and output
- Sales and output

But in real life, costs may not behave linearly.

Assumes Production Equals Sales

It assumes no change in inventory (all units produced are sold), which may not always be true.

Ignores External Factors

It does not consider:

- Market competition
- Economic conditions
- Government policies

Not Suitable for Multi-Product Firms (Without Stable Mix)

In multi-product firms, CVP assumes a constant sales mix.

If sales mix changes, results may be inaccurate.

Short-Term Focus

CVP analysis is mainly useful for short-term decisions and not for long-term planning.

Ignores Qualitative Factors

It considers only numerical data and ignores factors like:

- Customer satisfaction
- Employee morale
- Product quality

CVP Analysis is a helpful planning tool, but its reliability depends on stable assumptions and accurate cost classification.

Decision Making: Selection of a Product Mix

Selection of Product Mix

Meaning

Selection of Product Mix means deciding the most profitable combination of products to produce when resources are limited.

Management Accounting

The main objective is to **maximize total contribution and profit**.

□ Key Principle

- If there is **no limiting factor** → Select product with higher **Contribution per Unit**.
- If there is a **limiting factor** (like labour hours, machine hours, raw materials) → Select product with higher:

$$\frac{\text{Contribution per Unit of Limiting Factor}}{\text{Contribution per Unit of Limiting Factor}} \times \frac{\text{Contribution per Unit of Limiting Factor}}{\text{Contribution per Unit of Limiting Factor}}$$

□ Important Formulas (Tabular Form)

Particulars	Formula
Contribution per Unit	Selling Price – Variable Cost
Contribution per Limiting Factor	Contribution per Unit ÷ Units of Limiting Factor
Total Contribution	Contribution per Unit × Units Produced
Ranking Rule	Highest Contribution per Limiting Factor gets priority

✓ Numerical Illustration

Machine hours available = 5,000 hours

Particular	Product A	Product B
Selling Price	₹180	₹150
Variable Cost	₹120	₹100
Machine Hours per Unit	3 hours	2 hours
Maximum Demand	1,500 units	2,000 units

Management Accounting

□ Step 1: Contribution per Unit

Product Contribution

A $180 - 120 = ₹60$

B $150 - 100 = ₹50$

□ Step 2: Contribution per Machine Hour

Product Contribution Machine Hours Contribution per Machine Hour

B 50 2 25

□ Step 3: Ranking

① Product B (₹25 per hour)

② Product A (₹20 per hour)

□ Step 4: Allocation of Machine Hours

Produce Product B first:

$2,000 \times 2 = 4,000$ hours

Remaining hours = $5,000 - 4,000 = 1,000$ hours

Produce Product A:

$1,000 \div 3 = 333$ units (approx.)

□ Step 5: Total Contribution

Product	Units	Contribution	Total Contribution
B	2,000	50	1,00,000
A	333	60	19,980
Total Contribution			₹1,19,980

□

- ✓ Identify limiting factor
- ✓ Calculate contribution per limiting factor
- ✓ Rank products
- ✓ Allocate resources accordingly
- ✓ Compute total contribution

Illustration 1 (Raw Material as Limiting Factor)

Raw material available = **10,000 kg**

Particular	Product X	Product Y
------------	-----------	-----------

Management Accounting

Selling Price	₹250	₹200
Variable Cost	₹150	₹130
Material Required per Unit	5 kg	4 kg
Maximum Demand	1,500 units	2,000 units

□ Step 1: Contribution per Unit

Product Contribution

X $250 - 150 = ₹100$

Y $200 - 130 = ₹70$

□ Step 2: Contribution per kg of Material

Product	Contribution	Material per Unit	Contribution per kg
X	100	5	20
Y	70	4	17.5

□ Step 3: Ranking

- 1 Product X (₹20 per kg)
- 2 Product Y (₹17.5 per kg)

□ Step 4: Allocation

Produce X first:

$1,500 \times 5 = 7,500 \text{ kg}$

Remaining material = $10,000 - 7,500 = 2,500 \text{ kg}$

Produce Y:

$2,500 \div 4 = 625 \text{ units}$

□ Step 5: Total Contribution

Product	Units	Contribution	Total Contribution
X	1,500	100	1,50,000
Y	625	70	43,750
Total Contribution			₹1,93,750

✓ Illustration 2 (Labour Hours as Limiting Factor)

Labour hours available = **3,600 hours**

Particular	Product A	Product B
Selling Price	₹180	₹160
Variable Cost	₹120	₹110

Management Accounting

Labour Hours per Unit	3 hours	2 hours
Maximum Demand	1,200 units	1,500 units

□ Step 1: Contribution per Unit

Product Contribution

A 60

B 50

□ Step 2: Contribution per Labour Hour

Product Contribution Labour Hours Contribution per Hour

A 60 3 20

B 50 2 25

□ Step 3: Ranking

1	Product	B
2	Product A	

□ Step 4: Allocation

Produce B first:

$1,500 \times 2 = 3,000$ hours

Remaining hours = 600

Produce A:

$600 \div 3 = 200$ units

□ Step 5: Total Contribution

Product	Units	Contribution	Total Contribution
B	1,500	50	75,000
A	200	60	12,000
Total Contribution			₹87,000

✓ Illustration 3 (Three Products – University Level)

Machine hours available = **8,000 hours**

Particular	P	Q	R
Contribution per Unit	₹80	₹60	₹50
Machine Hours per Unit	4	2	1
Maximum Demand (Units)	1,000	2,000	3,000

Management Accounting

□ Step 1: Contribution per Machine Hour

Product	Contribution	Hours	Contribution per Hour
P 80	4	20	
Q 60	2	30	
R 50	1	50	

□ Step 2: Ranking

1		R
2		Q
3	P	

□ Step 3: Allocation

Produce R first:

$$3,000 \times 1 = 3,000 \text{ hours}$$

Remaining = 5,000 hours

Produce Q:

$$2,000 \times 2 = 4,000 \text{ hours}$$

Remaining = 1,000 hours

Produce P:

$$1,000 \div 4 = 250 \text{ units}$$

□ Step 4: Total Contribution

Product	Units	Contribution	Total Contribution
R	3,000	50	1,50,000
Q	2,000	60	1,20,000
P	250	80	20,000
Total			₹2,90,000

□ Key Exam Steps (Always Write)

1	Calculate	Contribution	per	Unit
2	Identify	Limiting		Factor
3	Compute	Contribution	per	Limiting Factor
4		Rank		Products
5		Allocate		Resource
6	Calculate Total Contribution			

Make or Buy Decision (Marginal Costing)

✓ Meaning

A **Make or Buy Decision** is a managerial decision where a company decides whether to:

- **Manufacture a product/component internally (Make)**
- OR
- **Purchase it from an external supplier (Buy)**

□ Objectives

Objective of Make or Buy Decision

The **Make or Buy Decision** is taken to determine whether a company should manufacture a product internally or purchase it from an external supplier.

1 To Minimize Cost

The primary objective is to choose the option with the **lower relevant cost**, thereby reducing total production cost.

2 To Maximize Profit

By selecting the most cost-effective option, the firm increases its overall contribution and profitability.

3 To Ensure Efficient Use of Resources

It helps in deciding whether internal resources (labour, machine hours, capacity) should be used for:

- **Manufacturing the component**
- or
- **Producing another profitable product**

4 To Utilize Idle Capacity

If there is idle capacity, making internally may be beneficial to use available resources effectively.

5 To Evaluate Opportunity Cost

It helps management consider whether internal capacity can generate higher contribution if used elsewhere.

6 To Support Strategic Decisions

The decision may also consider:

- **Quality control**
- **Reliability of suppliers**
- **Long-term supply security**

Management Accounting

□ In Simple Words

The main objective of a Make or Buy Decision is to select the alternative that reduces cost, maximizes profit, and ensures efficient use of resources.

□ Key Principles

□ Compare:

- **Marginal (Relevant) Cost of Making** with
- **Purchase Price**

□ Decision Rule

Situation Decision

Marginal Cost < Purchase Price Make

Marginal Cost > Purchase Price Buy

Equal Cost Indifferent (consider qualitative factors)

□ Relevant Cost for Make Decision

Only consider:

- Direct Material
 - Direct Labour
 - Variable Overheads
 - Avoidable Fixed Costs
- ✗Do NOT consider unavoidable fixed costs.

✓Illustration 1 (Basic Level)

A company requires 10,000 units of a component.

Cost of Making per Unit:

- Direct Material = ₹40
- Direct Labour = ₹30
- Variable OH = ₹20
- Fixed OH = ₹10 (unavoidable)

Purchase Price = ₹95 per unit

Management Accounting

□ Step 1: Calculate Relevant Cost of Making

Relevant Cost =

$$40 + 30 + 20 = ₹90$$

(Fixed OH ignored since unavoidable)

□ Step 2: Compare

Particular Cost per Unit

Make ₹90

Buy ₹95

✓ Decision

Since ₹90 < ₹95 → **Make the component**

Saving per unit = ₹5

$$\text{Total saving} = 10,000 \times 5 = ₹50,000$$

✓ Illustration 2 (With Avoidable Fixed Cost)

Units required = 8,000

Cost of Making per Unit:

- Direct Material = ₹50
- Direct Labour = ₹40
- Variable OH = ₹30
- Fixed OH = ₹20 (₹10 avoidable)

Purchase Price = ₹125

□ Step 1: Relevant Cost of Making

Relevant Cost =

$$50 + 40 + 30 + 10 = ₹130$$

□ Step 2: Compare

Particular Cost per Unit

Make ₹130

Buy ₹125

✓ Decision

Since ₹130 > ₹125 → **Buy from outside**

Saving per unit = ₹5

Management Accounting

Total saving = $8,000 \times 5 = ₹40,000$

Management Accounting

□ Important Points

- ✓ Consider only relevant costs
- ✓ Ignore sunk costs
- ✓ Consider opportunity cost (if any)
- ✓ Consider qualitative factors (quality, reliability, capacity use)

Discontinuance of a Product Line (Marginal Costing Decision)

✓ Meaning

Discontinuance of a Product Line refers to the decision whether to continue or drop a particular product that appears to be making a loss.

This decision is taken using **marginal costing principles**.

□ Key Principle

- The decision should be based on **Contribution**, not on profit.

□ Decision Rule

Situation Decision

Contribution is Positive Continue the product

Contribution is Negative Discontinue the product

□ Important Concept

Even if a product shows **accounting loss**, it should not be discontinued if:

- It contributes towards fixed cost
- It reduces overall loss

Fixed costs usually remain even if the product is discontinued.

□ Illustration

A company produces three products: A, B, and C.

Particulars	A	B	C
Sales (₹)	5,00,000	4,00,000	3,00,000
Variable Cost (₹)	3,00,000	3,20,000	2,80,000

□ Step 1: Contribution

Product Contribution

A 2,00,000

B 80,000

C 20,000

Assume total fixed cost = ₹2,50,000 Total

Contribution = ₹3,00,000

Profit = 3,00,000 – 2,50,000 = ₹50,000

□ Analysis

Even though Product C has very low contribution, it is still positive (₹20,000). If

Product C is discontinued:

Total Contribution reduces to 2,80,000

Profit becomes:

2,80,000 – 2,50,000 = ₹30,000

□ Overall profit decreases.

✓ Decision

Do NOT discontinue Product C because it contributes toward fixed cost.

□ When to Discontinue?

A product should be discontinued only if:

- Contribution is negative

OR

- Resources can be used to earn higher contribution elsewhere

□ In Simple Words

A product should not be discontinued just because it shows loss. If it contributes towards fixed cost, it should be continued.

Discontinuance of a Product Line with Limiting Factor

✓ Meaning

When resources such as **machine hours, labour hours, or materials** are limited, a company must decide:

- Whether to discontinue a product
- And use the limited resource for a more profitable product

The decision is based on **Contribution per Unit of Limiting Factor**.

Management Accounting

□ Decision Rule

□ Compare **Contribution per Unit of Limiting Factor**

Discontinue the product with **lower contribution per limiting factor** if resources can generate higher contribution elsewhere.

□ Formula

Contribution per Limiting Factor = Contribution per Unit / Units of Limiting Factor

✓ Illustration

Machine hours available = 5,000 hours

Particular	Product A	Product B
Selling Price	₹200	₹180
Variable Cost	₹120	₹130
Machine Hours per Unit	4	2
Maximum Demand	800 units	2,000 units
Fixed Cost = ₹2,00,000		

□ Step 1: Contribution per Unit

Product Contribution

A $200 - 120 = ₹80$

B $180 - 130 = ₹50$

□ Step 2: Contribution per Machine Hour

Product	Contribution	Machine Hours	Contribution per Hour
A 80	4	20	
B 50	2	25	

□ Step 3: Ranking

1	Product	B	(₹25	per	hour)
2	Product A (₹20 per hour)				

□ Step 4: Allocation of Machine Hours

Produce B first:

Management Accounting

$$2,000 \times 2 = 4,000 \text{ hours}$$

$$\text{Remaining hours} = 1,000$$

Produce A:

$$1,000 \div 4 = 250 \text{ units}$$

□ Step 5: Total Contribution

Product	Units	Contribution	Total Contribution
B	2,000	50	1,00,000
A	250	80	20,000
Total Contribution			₹1,20,000

□ Step 6: Profit

$$\text{Profit} = 1,20,000 - 2,00,000 = (-₹80,000)$$

$$\text{Profit} = 1,20,000 - 2,00,000 = (-₹80,000)$$

(Overall loss, but best possible under constraint)

□ Decision

If Product A is continued fully, it gives lower contribution per machine hour.

Therefore:

- Allocate limited resource to Product B first.
- Reduce or discontinue lower-ranked product if necessary.

□ Important Point

In limiting factor situations:

- ✗ Do not decide based only on total contribution.
- ✓ Decide based on contribution per unit of limiting factor.

□ In Simple Words

When resources are limited, discontinue or reduce the product that gives lower contribution per unit of scarce resource.

Change or Status Quo Decision (Marginal Costing)

✓ Meaning

Change or Status Quo Decision refers to deciding whether to:

- Accept a proposed change (price reduction, new method, expansion, etc.) OR
- Continue with the existing situation (status quo)

This decision is based on **incremental (differential) analysis**.

Management Accounting

□ Key Principle

□ Compare:

- **Additional Contribution (Benefit)**
with
- **Additional Cost (Sacrifice)**

□ Decision Rule

Situation Decision

Additional Contribution > Additional Cost Accept Change

Additional Contribution < Additional Cost Maintain Status Quo

Equal Indifferent

□ Relevant Formula

Incremental Profit = Additional Contribution – Additional Cost

If Incremental Profit is positive → Accept change.

✓ Illustration

A company sells 10,000 units at ₹100 per unit.

Variable Cost per unit = ₹60

Fixed Cost = ₹2,00,000

A proposal is made to reduce price to ₹90.

Expected sales increase to 14,000 units.

□ Step 1: Present Situation

Contribution per unit = $100 - 60 = ₹40$

Total Contribution = $10,000 \times 40 = ₹4,00,000$ Profit

= $4,00,000 - 2,00,000 = ₹2,00,000$

□ Step 2: Proposed Change

New Contribution per unit = $90 - 60 = ₹30$

Total Contribution = $14,000 \times 30 = ₹4,20,000$

Profit = $4,20,000 - 2,00,000 = ₹2,20,000$

□ Step 3: Incremental Analysis

Increase in Profit = ₹2,20,000 – ₹2,00,000

Management Accounting

= ₹20,000

✓ Decision

Since profit increases by ₹20,000 → **Accept the Change**

□ Situations Where Change vs Status Quo Applies

- ✓ Price reduction decision
- ✓ Cost increase proposal
- ✓ Expansion decision
- ✓ Automation decision
- ✓ New marketing strategy

□ Important Points

- ✓ Consider only relevant (incremental) costs
- ✓ Ignore sunk costs
- ✓ Consider opportunity cost
- ✓ Evaluate qualitative factors

□ In Simple Words

Accept a change only if it increases overall contribution and profit compared to the present situation.

Change or Status Quo – Illustrations

✓ Illustration 1 – Price Reduction Decision

□ Present Situation

Particular	Details
Selling Price	₹120 per unit
Variable Cost	₹80 per unit
Fixed Cost	₹3,00,000
Sales Volume	10,000 units

□ Step 1: Present Profit

Contribution per unit = $120 - 80 = ₹40$

Total Contribution = $10,000 \times 40 = ₹4,00,000$ Profit

= $4,00,000 - 3,00,000 = ₹1,00,000$

☐ Proposed Change

Reduce price to ₹110

Expected sales increase to 13,000 units

New Contribution per unit = $110 - 80 = ₹30$ Total

Contribution = $13,000 \times 30 = ₹3,90,000$ Profit =

$3,90,000 - 3,00,000 = ₹90,000$

☐ Incremental Analysis

Particular Amount (₹)

New Profit 90,000

Present Profit 1,00,000

Decrease in Profit (10,000)

✓ Decision

Do NOT accept the change.

Maintain **Status Quo**.

✓ Illustration 2 – Additional Advertising Proposal

☐ Present Data

Particular	Amount
Sales	₹20,00,000
Variable Cost	₹12,00,000
Fixed Cost	₹5,00,000
Contribution	= 8,00,000
Profit	= $8,00,000 - 5,00,000 = ₹3,00,000$

☐ Proposed Change

Additional advertisement cost	= ₹1,00,000
Expected increase in sales	= ₹5,00,000

Variable cost ratio = 60%

☐ Step 1: Additional Contribution

Additional Variable Cost = 60% of 5,00,000 = 3,00,000

Management Accounting

Additional Contribution = $5,00,000 - 3,00,000 = ₹2,00,000$

□ Step 2: Incremental Profit

Particular	Amount (₹)
Additional Contribution	2,00,000
Less: Additional Fixed Cost	1,00,000
Increase in Profit	1,00,000

✓ Decision

Accept the change because profit increases by ₹1,00,000.

✓ Illustration 3 – New Machine Proposal

Current	variable	cost	per	unit	=	₹70
New	machine	reduces	variable	cost	to	₹60
Extra	fixed	cost	=			₹2,00,000
Expected	sales	=		20,000		units
Selling price = ₹100						

□ Present Contribution

Contribution per unit = $100 - 70 = ₹30$ Total

Contribution = $20,000 \times 30 = 6,00,000$

□ New Situation

Contribution per unit = $100 - 60 = ₹40$ Total

Contribution = $20,000 \times 40 = 8,00,000$

Increase in Contribution = $2,00,000$

□ Incremental Analysis

Particular	Amount
Increase in Contribution	2,00,000
Increase in Fixed Cost	2,00,000
Net Effect	0

✓ Decision

Indifferent (No change in profit).

Management Accounting

□ Exam Writing Steps

1	Calculate	present	profit
2	Calculate	proposed	profit
3	Find	incremental	profit
4	Accept change only if incremental profit is positive		

Limiting Factor / Key Factor (Marginal Costing)

✓ Meaning

A **Limiting Factor (Key Factor)** is a factor that restricts the level of production or sales of a business.

It is the **scarce resource** that prevents the company from producing unlimited output.

□ Definition

A Limiting Factor is the factor which limits the activities of an undertaking and prevents it from achieving maximum output or profit.

□ Why It Is Important?

Why Limiting Factor (Key Factor) Is Important?

A **Limiting Factor (Key Factor)** is important because it restricts production or sales and directly affects profitability. Understanding it helps management make better decisions.

1 Helps in Profit Maximization

When resources are limited, selecting the product with the **highest contribution per unit of limiting factor** ensures maximum profit.

2 Ensures Efficient Resource Utilization

Scarce resources such as:

- Labour hours
- Machine hours
- Raw materials
- Capital

must be used in the most efficient way.

3 Assists in Product Mix Decisions

When multiple products are produced, limiting factor helps in:

- Ranking products
- Allocating scarce resources
- Selecting the best combination

Prevents Wastage of Resources

Identifying the limiting factor avoids misuse of:

- Time
- Materials
- Production capacity

Supports Managerial Decision-Making

Limiting factor analysis is useful in decisions like:

- Make or Buy
- Discontinuance
- Expansion
- Pricing

Helps in Capacity Planning

It highlights bottlenecks in production and helps management plan:

- Expansion
- Additional labour
- Additional machinery

Improves Budgeting and Forecasting

It helps prepare realistic:

- Production budgets
- Sales budgets based

on available resources.

In Simple Words

The Limiting Factor is important because it helps a business use scarce resources wisely and maximize contribution and profit.

Types of Limiting Factors (Consider All Factors)

Limiting factors can be classified into the following categories:

Production-Related Factors

Limiting Factor	Explanation
Labour Hours	Shortage of skilled/unskilled workers
Machine Hours	Limited machine capacity
Raw Materials	Scarcity of material supply
Production Capacity	Limited plant capacity

Management Accounting

Power / Electricity	Limited energy supply	
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2 Sales-Related Factors

Limiting Factor	Explanation
Market Demand	Limited customer demand
Sales Quota	Government restrictions
Distribution Capacity	Limited delivery system
Competition	Strong market competition

3 Financial Factors

Limiting Factor	Explanation
Working Capital	Shortage of funds
Cash Availability	Limited liquidity
Credit Restrictions	Borrowing limitations

4 External Factors

Limiting Factor	Explanation
Government Policy	Regulations, licensing
Import Restrictions	Trade barriers
Economic Conditions	Recession, inflation
Natural Conditions	Weather, disasters

Decision Rule under Limiting Factor

When a limiting factor exists:

Contribution per Unit of Limiting Factor = Contribution per Unit / Units of Limiting Factor

 Select product with highest contribution per limiting factor.

Example

Machine hours are limited.

Product	Contribution per Unit	Machine Hours Required
---------	-----------------------	------------------------

A	₹80	4
---	-----	---

B	₹60	2
---	-----	---

Contribution per machine hour:

A	=	80	÷	4	=	20
---	---	----	---	---	---	----

B = $60 \div 2 = 30$

Management Accounting

☐ Product B should be prioritized.

☐ Key Points to Remember

- ✓ Identify the scarce resource
- ✓ Calculate contribution per unit of limiting factor
- ✓ Rank products
- ✓ Allocate resource accordingly

☐ In Simple Words

A Limiting Factor is the resource that restricts production or sales, and decisions should be made to maximize contribution per unit of that scarce resource.

Production-Related Factors – Illustration

Machine hours available = 4,000 hours

Limiting Factor : Machine Hours

Product					A
Contribution	per	unit	=		₹60
Machine hours per unit	= 3				
Product					B
Contribution	per	unit	=		₹50
Machine hours per unit	= 2				

Particular Product A Product B

Contribution	per	unit	60	50	
Machine	hours	per	unit	3	2
Contribution per hour 20 25					

Decision : Produce Product B first because it gives higher contribution per machine hour.

Sales-Related Factors – Illustration

Market demand is limited.

Maximum				Demand:
Product	X	=	2,000	units
Product Y = 5,000 units				

Management Accounting

Particular Product X Product Y

Contribution	per	unit	80	50
Maximum	demand	(units)	2,000	5,000
Total contribution 1,60,000 2,50,000				

Decision : Even though X has higher contribution per unit, sales are limited.
Total contribution depends on demand.

3 Financial Factors – Illustration

Working capital available = ₹5,00,000

Particular Product A Product B

Investment	per	unit	1,000	2,000
Contribution	per	unit	200	350
Contribution per ₹ invested 20% 17.5%				

Decision : Select Product A because it gives higher return per rupee invested.

4 External Factors – Illustration

Government quota limits production to 3,000 units total.

Particular Product P Product Q

Contribution	per	unit	70	60
Units	allowed	under	quota	1,500
Total contribution 1,05,000 90,000				

Decision : Allocate more quota to product with higher contribution.

1 Labour Hours as Limiting Factor

Total labour hours available = 2,400 hours

Management Accounting

Particular		Product A	Product B
Selling Price		150	120
Variable Cost		90	70
Contribution	per	60	50
Labour	hours per unit	3	2
Contribution per hour		20	25

Ranking:

1 Product B

2 Product A

Decision:

Produce B first.

Maximum demand of B = 800 units

Labour used = $800 \times 2 = 1,600$ hours

Remaining labour = 800 hours

Units of A = $800 \div 3 = 266$ units

2 Raw Material as Limiting Factor

Material available = 6,000 kg

Particulars	Product X	Product Y
Contribution per unit	80	60
Material per unit (kg)	4	2
Contribution per kg	20	30

Ranking:

1 Product Y

2 Product X

Decision:

Produce Y first.

3 Machine Hours as Limiting Factor

Machine hours available = 5,000 hours

Management Accounting

Particular				Product P	Product Q
Contribution	per	unit		100	75
Machine	hours	per	unit	5	3
Contribution per hour				20	25

Decision:

Produce Product Q first.

4 Market Demand as Limiting Factor

Particular			Product A	Product B
Contribution	per	unit	120	90
Maximum	demand	(units)	1,000	3,000
Total contribution			1,20,000	2,70,000

Decision:

Even though A has higher contribution per unit, total contribution depends on demand.

5 Working Capital as Limiting Factor

Working capital available = ₹8,00,000

Particular			Product A	Product B
Investment	per	unit	2,000	1,000
Contribution	per	unit	400	250
Contribution per ₹ invested			20%	25%

Decision:

Select Product B (higher return per ₹ invested).

6 Power/Electricity as Limiting Factor

Power available = 3,000 units

Management Accounting

Particular			Product M	Product N
Contribution	per	unit	90	70
Power	per	unit	6	2
Contribution per power			15	35
Decision:				
Produce Product N first.				

□ Common Exam Steps

- 1 Identify limiting factor
- 2 Calculate contribution per unit
- 3 Calculate contribution per limiting factor
- 4 Rank products
- 5 Allocate resources
- 6 Compute total contribution

Management Accounting

Multiple Choice Questions

UNIT I – Introduction to Management Accounting

1. Management Accounting mainly helps in:
- A) Bookkeeping
 - B) Auditing
 - C) Decision-making
 - D) Tax calculation

Answer: C

2. Management accounting is mainly concerned with:
- A) External reporting
 - B) Internal reporting
 - C) Tax filing
 - D) Legal compliance

Answer: B

3. Comparative statements show:
- A) Percentage analysis
 - B) Ratio analysis
 - C) Comparison of two periods
 - D) Budget figures

Answer: C

4. Common size statement expresses items as:
- A) Absolute figures
 - B) Ratios
 - C) Percentages
 - D) Units

Answer: C

5. Trend analysis is based on:
- A) Future year
 - B) Base year
 - C) Budget year
 - D) Audit year

Answer: B

Management Accounting

6. Management Accounting differs from Financial Accounting mainly in:
- A) Objective
 - B) Ledger posting
 - C) Trial balance
 - D) Journal entries

Answer: A

7. Tools of financial analysis include:
- A) Cash book
 - B) Ledger
 - C) Ratio analysis
 - D) Voucher

Answer: C

8. Financial statements mainly show:
- A) Future performance
 - B) Past performance
 - C) Budget data
 - D) Estimated profit

Answer: B

9. Interpretation means:
- A) Recording
 - B) Explaining results
 - C) Auditing
 - D) Posting

Answer: B

10. Management accounting reports are:
- A) Compulsory
 - B) Statutory
 - C) Internal
 - D) Public

Answer: C

□ UNIT II – Ratio Analysis

11. Current Ratio =
- A) $\frac{CA}{CL}$

Management Accounting

B)	CL	/	CA
C)	Sales	/	Stock
D)	Profit	/	Sales

Answer: A

12.	Ideal	Current	Ratio	is:
A)				1:1
B)				2:1
C)				3:1
D)				4:1

Answer: B

13.	Quick	Ratio	excludes:
A)			Cash
B)			Debtors
C)			Stock
D)			Investments

Answer: C

14.	Gross	Profit	Ratio	=
A)	GP	/	Sales	× 100
B)		NP	/	Sales
C)		Sales	/	GP
D)		GP	/	Cost

Answer: A

15.	Inventory	Turnover	Ratio	=
A)	COGS	/	Avg	Stock
B)		Sales	/	Stock
C)		Stock	/	Sales
D)		Profit	/	Stock

Answer: A

16.	Debt-Equity	Ratio	measures:
A)			Liquidity
B)			Profitability
C)			Solvency
D)			Efficiency

Answer: C

Management Accounting

17. Net Profit Ratio =
- A) $\frac{NP}{Sales} \times 100$
- B) $\frac{Sales}{NP}$
- C) $\frac{GP}{Sales}$
- D) $\frac{NP}{Cost}$

Answer: A

18. Working Capital =
- A) CA + CL
- B) CA - CL
- C) CL - CA
- D) FA - CL

Answer: B

19. Return on Capital Employed =
- A) $\frac{EBIT}{Capital Employed}$
- B) $\frac{NP}{Sales}$
- C) $\frac{GP}{Sales}$
- D) $\frac{Sales}{Capital}$

Answer: A

20. Ratio analysis helps in:
- A) Recording
- B) Interpretation
- C) Posting
- D) Auditing

Answer: B

□ UNIT III – Funds & Cash Flow

21. Funds Flow Statement shows:
- A) Profit only
- B) Cash only
- C) Sources & Applications of funds
- D) Assets only

Answer: C

22. Working Capital =
- A) FA - FL

Management Accounting

B)		-	CL
C)	C	-	CA
D)		+	CL

Answer: B

23.	Increase	Current	Liability	is:
A)				Application
B)				Source
C)				Expense
D)				Asset

Answer: B

24.	Cash	Flow	Statement	is	prepared	as	per:
A)			AS				2
B)			AS				3
C)			AS				10
D)			AS				5

Answer: B

25.	Purchase	of	machinery	is:
A)		Operating		activity
B)		Investing		activity
C)		Financing		activity
D)		Cash		equivalent

Answer: B

26.	Issue	of	shares	is:
A)		Investing		activity
B)		Financing		activity
C)		Operating		activity
D)				Non-cash

Answer: B

27.	Depreciation			is:
A)		Cash		item
B)		Non-cash		item
C)		Current		asset
D)				Liability

Answer: B

Management Accounting

28. Dividend paid is:
- A) Financing activity
 - B) Investing activity
 - C) Operating activity
 - D) Non-cash

Answer: A

29. Increase in stock is:
- A) Source
 - B) Application
 - C) Profit
 - D) Income

Answer: B

30. Cash Flow Statement shows:
- A) Profitability
 - B) Liquidity position
 - C) Capital structure
 - D) Sales trend

Answer: B

☐ UNIT IV – Budget & Budgetary Control

31. A budget is a:
- A) Historical record
 - B) Plan
 - C) Audit report
 - D) Voucher

Answer: B

32. Sales Budget is prepared:
- A) Last
 - B) First
 - C) After cash budget
 - D) After master budget

Answer: B

33. Flexible Budget changes with:
- A) :

Management Accounting

- B) Output level
C) Profit
D) Capital

Answer: B

34. Cash Budget shows:
A) Profit
B) Cash inflow & outflow
C) Stock
D) Depreciation

Answer: B

35. Master Budget is:
A) Cost sheet
B) Consolidated budget
C) Cash budget
D) Production plan

Answer: B

36. Budgetary Control compares:
A) Budget with actual
B) Profit with loss
C) Assets with liabilities
D) Sales with stock

Answer: A

37. Production Budget depends on:
A) Cash
B) Sales
C) Labour
D) Machine

Answer: B

38. Fixed Budget remains:
A) Flexible
B) Constant
C) Adjustable
D) Variable

Answer: B

Management Accounting

39. Budget period is:
- A) Random
- B) Specific period
- C) Unlimited
- D) Permanent

Answer: B

40. Budgetary control improves:
- A) Posting
- B) Efficiency
- C) Auditing
- D) Recording

Answer: B

□ UNIT V – Marginal Costing

41. Marginal Cost includes:
- A) Fixed cost
- B) Variable cost
- C) Total cost
- D) Sunk cost

Answer: B

42. Contribution =
- A) Sales – Variable Cost
- B) Sales – Fixed Cost
- C) Profit – Cost
- D) Cost – Sales

Answer: A

43. P/V Ratio =
- A) $\frac{\text{Contribution}}{\text{Sales}} \times 100$
- B) $\frac{\text{Profit}}{\text{Sales}}$
- C) $\frac{\text{Sales}}{\text{Contribution}}$
- D) $\frac{\text{Fixed}}{\text{Variable}}$

Answer: A

44. Break-Even Point (Units) =
- A) $\frac{\text{FC}}{\text{Contribution per unit}}$

Management Accounting

- B) Sales / Profit
 C) VC / SP
 D) FC / Sales

Answer: A

45. Margin of Safety =
 A) Actual Sales – BEP Sales
 B) Sales – Profit
 C) Cost – Sales
 D) BEP – Profit

Answer: A

46. Fixed cost remains:
 A) Variable
 B) Constant
 C) Flexible
 D) Adjustable

Answer: B

47. Variable cost per unit is:
 A) Changing
 B) Constant
 C) Fixed
 D) Decreasing

Answer: B

48. Absorption costing includes:
 A) Variable cost only
 B) Fixed & Variable cost
 C) Fixed cost only
 D) No cost

Answer: B

49. Make or Buy decision is based on:
 A) Relevant cost
 B) Sunk cost
 C) Historical cost
 D) Total assets

Answer: A

Management Accounting

50. Limiting factor restricts:
- A) Profit
- B) Output
- C) Sales only
- D) Tax

Answer: B

UNIT I

Introduction to Management Accounting

□ 5 MARKS QUESTIONS

1. Define Management Accounting and explain its objectives.
2. Explain the scope of Management Accounting.
3. Discuss the importance of Management Accounting.
4. Explain the limitations of Management Accounting.
5. Distinguish between Management Accounting and Financial Accounting.
6. Distinguish between Management Accounting and Cost Accounting.
7. Explain the nature and significance of Financial Statement Analysis.
8. What are Comparative Statements? Explain their purpose and preparation.
9. What is a Common Size Statement? Explain its meaning and uses.
10. What is Trend Analysis? Explain its uses

□ 8 MARKS QUESTIONS

1. Explain the meaning, scope and importance of Management Accounting.
2. Discuss the limitations of Management Accounting.
3. Explain the various tools of financial analysis.
4. Prepare a Comparative Statement from the following data:

Particulars	2022 (₹)	2023 (₹)
Sales	5,00,000	6,50,000
Cost of Goods Sold	3,00,000	3,90,000

Management Accounting

Particulars	2022 (₹)	2023 (₹)
Operating Expenses	80,000	1,00,000
Net Profit	1,20,000	1,60,000

Prepare a Comparative Income Statement showing increase/decrease and percentage change

5. Prepare a Common Size Balance Sheet from the following data:

Liabilities	₹	Assets	₹
Share Capital	5,00,000	Fixed Assets	6,00,000
Reserves	2,00,000	Current Assets	3,00,000
Long-term Loan	1,50,000		
Current Liabilities	50,000		

Prepare a Common Size Balance Sheet showing percentages.

6. Explain Trend Analysis with example.

The sales of a company for five years are as follows:

Year Sales (₹)

2019	4,00,000
2020	4,50,000
2021	5,00,000
2022	5,80,000
2023	6,20,000

Take 2019 as the base year and calculate trend percentages.

Management Accounting

7. Distinguish between Financial Accounting, Cost Accounting and Management Accounting.

8. Explain the types of financial analysis.

9. Explain the analysis and interpretation of financial statements.

10. Case Study on Financial Analysis:

XYZ Ltd. has the following data:

Sales		₹10,00,000
Gross Profit		₹3,00,000
Net Profit		₹1,50,000
Current Assets		₹5,00,000
Current Liabilities		₹2,50,000
Total Debt		₹4,00,000

Shareholders' Funds ₹6,00,000

Required:

- (a) Analyze the profitability, liquidity and solvency position of the company.
- (b) Give your interpretation of the overall financial performance.

□ UNIT II

Ratio Analysis

□ 5 MARKS QUESTIONS

1. Define Ratio Analysis.
2. Explain the advantages of Ratio Analysis.
3. Discuss the limitations of Ratio Analysis.
4. Explain Liquidity Ratios with suitable examples.
5. Explain Profitability Ratios with examples.

Management Accounting

Management Accounting

6. Describe Turnover (Activity) Ratios.
7. Explain Solvency Ratios.
8. Explain Leverage Ratios.
9. State the formula for:
(a) Current Ratio
(b) Quick Ratio
10. What is Working Capital? Explain its types.

□ 8 MARKS QUESTIONS

. Explain the types of ratios in detail.

Explain the following categories of ratios with suitable examples:

(a)	Liquidity	Ratios
(b)	Profitability	Ratios
(c)	Solvency	Ratios
(d)	Activity / Turnover	Ratios

2. Calculate Current Ratio and Quick Ratio from the following data:

Current Assets	₹2,50,000
Inventory	₹80,000
Prepaid Expenses	₹20,000
Current Liabilities	₹1,25,000

3. Compute Gross Profit Ratio and Net Profit Ratio from the following information:

Net Sales	₹5,00,000
Gross Profit	₹1,50,000
Net Profit	₹80,000

Management Accounting

4. Calculate Inventory Turnover Ratio and Debtors Turnover Ratio from the following data:

Cost of Goods Sold	₹3,60,000
Average Inventory	₹60,000
Credit Sales	₹4,00,000
Average Debtors	₹50,000

5. Calculate Debt-Equity Ratio and Interest Coverage Ratio from the following information:

Long-term Debt	₹4,00,000
Shareholders' Funds	₹6,00,000
EBIT	₹2,00,000
Interest	₹40,000

6. Explain profitability ratios with illustration.

Discuss the following profitability ratios with formula and example:
(a) Gross Profit Ratio
(b) Net Profit Ratio
(c) Return on Capital Employed (ROCE)
(d) Earnings Per Share (EPS)

7. Prepare Financial Statements from the following ratios:

Current Ratio	=	2:1
Quick Ratio	=	1:1
Working Capital	=	₹1,00,000
Stock	=	₹60,000

Management Accounting

Reserves	&	Surplus	=	₹50,000
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Long-term Loan = ₹1,50,000

Prepare a Balance Sheet.

8. Calculate Return on Capital Employed (ROCE):

Net	Profit	before	Interest	and	Tax	₹1,20,000
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Capital Employed ₹8,00,000

9. Interpret the following ratios for decision-making:

Current	Ratio	=	0.9:1
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Debt-Equity	Ratio	=	3:1
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Net	Profit	Ratio	=	4%
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Inventory Turnover Ratio = 2 times

Comment on liquidity, solvency and profitability position of the company.

10. Case Study on Ratio Analysis:

ABC Ltd. has the following data:

Net	Sales	₹10,00,000
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Cost	of	Goods	Sold	₹7,00,000
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Net	Profit	₹1,50,000
-----	--------	-----------

Current	Assets	₹4,00,000
---------	--------	-----------

Current	Liabilities	₹2,50,000
---------	-------------	-----------

Total	Debt	₹5,00,000
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Shareholders' Funds ₹5,00,000

Management Accounting

Required:

- (a) Calculate important liquidity, profitability and solvency ratios.
(b) Comment on the overall financial performance of the company..

□ UNIT III

Funds Flow & Cash Flow Analysis

□ 5 MARKS QUESTIONS

1. Define Funds Flow Statement.
2. Explain the concept of Working Capital.
3. What are the sources of funds?
4. What are the applications (uses) of funds?
5. What is meant by Schedule of Changes in Working Capital?
6. Define Cash Flow Statement.
7. Discuss the advantages of Cash Flow Statement.
8. Explain the limitations of Cash Flow Statement.
9. What are Operating Activities?
10. What are Investing Activities?

□ 8 MARKS QUESTIONS

1. Prepare a Schedule of Changes in Working Capital.

From the following Balance Sheet extracts of XYZ Ltd., prepare a Schedule of Changes in Working Capital:

Particulars	2022 (₹)	2023 (₹)
Stock	50,000	65,000
Debtors	40,000	55,000
Bills Receivable	10,000	8,000
Creditors	30,000	25,000
Bills Payable	5,000	7,000
Outstanding Expenses	8,000	6,000

Management Accounting

2. Prepare an Adjusted Profit & Loss Account.

The	Net	Profit	for	the	year	is	₹1,20,000.
Depreciation							₹30,000.
Loss	on	sale	of	machinery			₹5,000.
Profit	on	sale	of	land			₹10,000.
Transfer	to	General		Reserve			₹20,000.
Provision for Tax ₹25,000.							

Prepare Adjusted Profit & Loss Account to ascertain Funds from Operations.

3. Prepare a Funds Flow Statement.

From the following information, prepare a Funds Flow Statement:

Funds	from	Operations	₹1,50,000.
Issue	of	Share Capital	₹1,00,000.
Redemption	of	Debentures	₹50,000.
Purchase	of	Machinery	₹1,20,000.
Dividend		Paid	₹40,000.

Increase in Working Capital ₹30,000.

4. Explain the procedure for preparing Funds Flow Statement.

Explain the steps involved in preparing:

- Schedule of Changes in Working Capital
 - Calculation of Funds from Operations
 - Identification of Sources and Applications of Funds
 - Preparation of Funds Flow Statement
-

5. Prepare a Cash Flow Statement as per AS-3.

Management Accounting

From the following details, prepare a Cash Flow Statement as per AS-3:

Net Profit before tax	₹2,00,000.
Depreciation	₹40,000.
Increase in Debtors	₹20,000.
Decrease in Creditors	₹10,000.
Purchase of Equipment	₹80,000.
Issue of Shares	₹1,00,000.
Dividend Paid	₹30,000.

6. Cash Flow from Operating Activities (Indirect Method).

From the following information, calculate Cash Flow from Operating Activities (Indirect Method):

Net Profit before tax	₹1,50,000.
Depreciation	₹25,000.
Increase in Stock	₹15,000.
Decrease in Debtors	₹10,000.
Increase in Creditors	₹8,000.
Provision for Tax	₹20,000.

7. Cash Flow from Investing & Financing Activities.

Classify and calculate Cash Flow from Investing and Financing Activities:

Sale of Land	₹50,000.
Purchase of Machinery	₹70,000.
Issue of Shares	₹1,00,000.
Redemption of Debentures	₹40,000.
Dividend Paid	₹20,000.

Management Accounting

Management Accounting

8. Distinguish between Funds Flow Statement and Cash Flow Statement.

Explain the differences between Funds Flow Statement and Cash Flow Statement.

9. Comprehensive Balance Sheet based Funds Flow problem.

The Balance Sheets of ABC Ltd. as on 31.03.2022 and 31.03.2023 are given below:

Liabilities	2022 (₹)	2023 (₹)	Assets	2022 (₹)	2023 (₹)
Share Capital	3,00,000	4,00,000	Land & Building	2,00,000	2,50,000
General Reserve	50,000	80,000	Plant & Machinery	1,50,000	1,80,000
P&L A/c	40,000	60,000	Stock	70,000	90,000
Creditors	60,000	50,000	Debtors	50,000	65,000
Bills Payable	20,000	15,000	Cash	50,000	20,000

Additional Information:
Depreciation on Plant ₹20,000.
Dividend Paid ₹30,000.

Prepare:

- (a) Schedule of Changes in Working Capital
(b) Funds Flow Statement

10. Full Cash Flow Statement numerical problem.

From the following Balance Sheets, prepare a Cash Flow Statement as per AS-3:

Liabilities	2022 (₹)	2023 (₹)	Assets	2022 (₹)	2023 (₹)
Equity Share Capital	5,00,000	6,00,000	Land	2,00,000	2,50,000
General Reserve	80,000	1,00,000	Plant	3,00,000	3,50,000
P&L A/c	70,000	90,000	Stock	1,00,000	1,20,000
Long-term Loan	1,50,000	1,20,000	Debtors	80,000	75,000

Management Accounting

Liabilities	2022 (₹)	2023 (₹)	Assets	2022 (₹)	2023 (₹)
Creditors	1,00,000	90,000	Cash	1,20,000	1,25,000

Additional				Information:
Depreciation		on	Plant	₹40,000.
Dividend			Paid	₹50,000.
Income Tax Paid ₹30,000.				

Prepare a complete Cash Flow Statement under Operating, Investing and Financing Activities.

□ UNIT IV

Budget and Budgetary Control

□ 5 MARKS QUESTIONS

1. Define Budget.
2. Explain the objectives of Budget.
3. Describe the features of Budgetary Control.
4. Discuss the advantages of Budgetary Control.
5. Explain the limitations of Budgetary Control.
6. What is meant by Cash Budget?
7. Define Flexible Budget.
8. What is Production Budget?
9. Define Sales Budget.
10. What is Master Budget?

□ 8 MARKS QUESTIONS

1. Prepare a Cash Budget with a suitable illustration.

A company expects the following for the months of January, February and March:

Month	Sales (₹)	Purchases (₹)	Wages (₹)
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Management Accounting

Month	Sales (₹)	Purchases (₹)	Wages (₹)
January	1,00,000	60,000	10,000
February	1,20,000	70,000	12,000
March	1,40,000	80,000	14,000

Additional Information:

- 50% of sales are cash sales; balance collected in the following month.
- Purchases are paid one month after purchase.
- Wages are paid in the same month.
- Opening cash balance on 1st January ₹20,000.

Prepare a Cash Budget for three months.

2. Prepare a Flexible Budget for different levels of activity.

A factory operates at 50% capacity producing 5,000 units with the following costs:

- Direct Materials ₹50 per unit
- Direct Labour ₹30 per unit
- Variable Overheads ₹20 per unit
- Fixed Overheads ₹2,00,000

Prepare a Flexible Budget for 50%, 75% and 100% capacity.

3. Prepare a Production Budget from the given sales forecast and inventory data.

Forecasted Sales (units):

- January – 5,000
- February – 6,000
- March – 7,000

Additional Information:

Management Accounting

- Closing stock each month = 20% of next month's sales.
- Opening stock on 1st January = 1,000 units.

Prepare a Production Budget for January to March.

4. Prepare a Sales Budget using the estimated sales quantity and price.

Estimated sales for the next quarter are:

Product Units Selling Price (₹)

A 2,000 100

B 1,500 150

Prepare the Sales Budget showing total sales value.

5. Prepare a Purchase Budget based on production requirements and inventory policy.

Production requirement for the next quarter = 10,000 units. Each unit requires 5 kg of raw material.
Opening stock of material = 8,000 kg.

Closing stock policy = 10% of next quarter's material requirement (which is 60,000 kg).

Prepare a Material Purchase Budget.

6. Explain the concept of Master Budget with a suitable example.

Explain Master Budget as a summary of all functional budgets. Illustrate how Sales Budget, Production Budget and Cash Budget are consolidated into a Master Budget.

7. From the following data, prepare an Integrated Sales–Production Budget.

Management Accounting

Sales Forecast (units):

- Q1 – 8,000
- Q2 – 10,000
- Q3 – 12,000

Opening stock = 2,000 units.

Desired closing stock = 25% of next quarter's sales.

Prepare both Sales and Production Budgets.

8. Explain the process of Budgetary Control in an organization.

Explain the steps involved in Budgetary Control.

9. From the following information, prepare a Comprehensive Cash Budget for three months.

Estimated Sales (₹):

- April – 2,00,000
- May – 2,50,000
- June – 3,00,000

Additional Information:

- 40% cash sales; balance collected in the next month.
- Purchases = 60% of next month's sales; paid in the next month.
- Expenses ₹20,000 per month.
- Machinery purchase in May ₹50,000.
- Opening cash balance ₹30,000.

Prepare a Cash Budget for April–June.

10. Prepare a Flexible Budget incorporating semi-variable costs at different capacity levels.

At 60% capacity (6,000 units), costs are:

- Direct Material ₹40 per unit
- Direct Labour ₹25 per unit
- Variable Overheads ₹15 per unit
- Semi-variable Overheads ₹1,20,000 (50% fixed)
- Fixed Overheads ₹1,50,000

Prepare a Flexible Budget for 60%, 80% and 100% capacity.

□ UNIT V

Marginal Costing

□ 5 MARKS QUESTIONS

1. Define Marginal Costing.
2. Explain the features of Marginal Costing.
3. Define Fixed Cost, Variable Cost, and Semi-variable Cost with suitable examples.
4. What is Contribution? State its formula.
5. What is P/V Ratio? State its formula.
6. Define Break-Even Point.
7. What is Margin of Safety?
8. Explain Cost-Volume-Profit (CVP) Analysis.
9. What is meant by Limiting Factor?
10. Explain the concept of Make or Buy Decision.

□ 8 MARKS QUESTIONS

1. Distinguish between Marginal Costing and Absorption Costing.

Management Accounting

2. From the following data, calculate:
 - (a) P/V Ratio
 - (b) Break-Even Point (in sales value)
 - (c) Margin of Safety

Selling price per unit ₹50, Variable cost per unit ₹30, Fixed cost ₹40,000, Actual sales ₹1,20,000.
3. A company sells a product at ₹100 per unit. The variable cost per unit is ₹60 and the fixed cost is ₹80,000.
 - (a) Calculate the Break-Even Point in units.
 - (b) Compute the profit if 3,000 units are sold.
 - (c) Determine the sales required to earn a profit of ₹40,000.
4. A company produces two products A and B. Contribution per unit: A – ₹30, B – ₹20. Each unit of A requires 5 kg of material and B requires 2 kg of material. Total material available is 1,000 kg. Determine the most profitable product mix assuming material is the limiting factor.
5. A component can either be manufactured in-house or purchased from outside. Cost of manufacturing per unit: Direct Material ₹40, Direct Labour ₹20, Variable Overheads ₹10, Fixed Overheads ₹15 (₹10 avoidable). Purchase price per unit is ₹75. Advise whether the component should be made or bought.
6. A product line shows a loss of ₹10,000 after charging ₹15,000 as fixed costs. The contribution of the product is ₹5,000. Should the product line be discontinued? Give reasons with calculation.
7. A company is considering replacing an old machine with a new one. Additional revenue from new machine ₹50,000. Additional operating cost ₹35,000. Should the company replace the machine or continue with the old one? Justify with calculation.
8. The fixed cost of a company is ₹60,000 and the contribution per unit is ₹20. Calculate the number of units required to earn a target profit of ₹40,000.
9. A company sells two products A and B in the ratio 2:1. Contribution

Management Accounting

per unit: A – ₹30, B – ₹20.

Management Accounting

Fixed cost is ₹1,60,000.

Calculate the Break-Even Point in composite units and also determine the units of A and B at BEP.

10. A company manufactures three products with limited labour hours available. Contribution per unit: Product X – ₹40, Y – ₹30, Z – ₹50. Labour hours required per unit: X – 4 hours, Y – 3 hours, Z – 5 hours. Total labour hours available: 10,000 hours. Fixed cost: ₹2,00,000.

Determine:

- (a) The most profitable product mix.
- (b) Total contribution.
- (c) Profit or loss for the period.

UNIT V – Marginal Costing and Decision Making

5 Mark Questions

Q.No	Question	Level
1	Define Marginal Costing.	K1
2	Distinguish between Marginal Costing and Absorption Costing.	K2
3	What is Contribution?	K1
4	Define Break Even Point.	K1
5	What is Margin of Safety?	K1

8 Mark Questions

Q.No	Question	Level
1	Explain features of Marginal Costing.	K2
2	Explain Cost–Volume–Profit Analysis.	K3
3	Calculate Break Even Point and P/V Ratio.	K3
4	Explain decision making under Marginal Costing.	K4
5	Discuss Make or Buy decision and product mix decision.	K4