Que 3.1. Define accounting and state its functions.

Que 3.1: Define Accounting and State its Functions

A. Accounting

1. **Traditional View:**
   - Accounting was once considered simply as a **process of recording business transactions**.
   - Accountants mainly performed the **role of record-keeping**.
2. **Modern View:**
   - Today, accounting is viewed as a **tool of management**.
   - It provides **vital information** that helps in **planning the organization's future**.
3. **Definition by American Accounting Association (AAA):**

"Accounting is the process of identifying, measuring, and communicating economic information to permit informed judgments and decision by users of the information."

B. Is Accounting a Science or an Art?

1. **Accounting as a Science:**
   - It is based on **organized knowledge** and **principles**.
   - Therefore, it is considered a **science**.
2. **Accounting as a Social Science:**
   - It also depends on **human behavior** and **social and economic factors**, making it a **social science**.
3. **Accounting as an Art:**
   - It is a **technique** that helps us in **achieving desired objectives**, such as maintaining proper accounts, analyzing profit, etc.

C. Functions of Accounting

a. Recording:

- This is the **basic function** of accounting.

- It ensures that all **business transactions** of financial nature are not only recorded but done so in an **orderly manner**.
- Recording is done in the book known as the **"Journal"**.

b. Classifying:

- Classification is a **systematic analysis** of recorded data.
- It groups transactions or entries of the same nature **at one place**.
- Classification is done in a book called **"Ledger"**.

c. Summarising:

- Involves presenting classified data in a **useful and understandable form** for both **internal and external users**.
- This leads to preparation of:
    1. **Trial Balance**
    2. **Income Statement**
    3. **Balance Sheet**

d. Dealing with Financial Transactions:

- Accounting records **only those events** which are of **financial character**.
- Transactions without financial value are **not recorded**.

e. Analysing and Interpreting:

- The recorded financial data is **analyzed and interpreted** so that users can make **meaningful judgments**.
- It helps understand the **financial health** and **profitability** of the business.
- It is also used for **future planning** and **policy framing**.

f. Communicating:

- The analyzed and interpreted information is **communicated properly** to the relevant persons in a **proper format and manner**.

✅ **Example to Illustrate:**

Suppose a company sells products worth ₹20,000:

1. **Recording** – The ₹20,000 sale is noted in the **Journal**.
2. **Classifying** – It is grouped under the **Sales Ledger**.

3. **Summarising** – Monthly sales are compiled into an **Income Statement**.
4. **Dealing with Financial Transactions** – Only this financial sale is recorded, not things like employee mood.
5. **Analysing** – Data shows that the company is earning well, so they can plan to expand.
6. **Communicating** – A report is prepared and sent to the manager or owner for decisions.

D. Rules of Debit and Credit in Accounting

- All business transactions are recorded in the **Journal** using the **rules of debit and credit**.
- For proper recording, business transactions are classified into **three categories**:

---

1. Personal Account

- These accounts relate to **persons**, which can be:
  - **Natural persons** (like Ramesh, Suresh)
  - **Artificial persons** (like companies, banks)
  - **Representative persons** (like outstanding salary account)

Rule:

- **Debit the Receiver**
- **Credit the Giver**

Example:

If you pay ₹1,000 to Ramesh:

- Ramesh (a person) is **receiving** money → **Debit Ramesh A/c**
- Your cash is going out → **Credit Cash A/c**

---

2. Real Account

- These accounts relate to **tangible** (physical) and **intangible** (non-physical) assets.
  - Examples: Machinery, Furniture, Cash, Patents, Goodwill

Rule:

- **Debit What Comes In**
- **Credit What Goes Out**

Example:

If you buy furniture for ₹5,000 in cash:

- Furniture is **coming in** → **Debit Furniture A/c**
- Cash is **going out** → **Credit Cash A/c**

---

3. Nominal Account

- These accounts relate to **expenses, losses, incomes, and gains**.
- They do not physically exist but represent business performance.

Rule:

- **Debit All Expenses and Losses**
- **Credit All Gains and Incomes**

Example:

If you pay rent ₹2,000:

- Rent is an **expense** → **Debit Rent A/c**
- Cash is going out → **Credit Cash A/c**

✅ **Summary Table:**

Type of Account	Rule	Example
Personal	Debit the Receiver, Credit the Giver	Paid Ramesh ₹1,000
Real	Debit What Comes In, Credit What Goes Out	Bought furniture for ₹5,000
Nominal	Debit Expenses/Losses, Credit Incomes/Gains	Paid rent ₹2,000

Type of Account	Rule	Example

CREDIT ALL GAINS AND INCOMES

Que 3.2. **Explain balance sheet and classify assets and liabilities.**

Que 3.2: Explain Balance Sheet and Classify Assets and Liabilities

---

A. Balance Sheet

A **balance sheet** is a financial statement that provides a **snapshot of a business's financial position** at a specific point in time.

Main Points:

1. **Purpose:**
   - It is prepared to **ascertain and analyze** what the business **owns (assets)** and **owes (liabilities)** on a particular date.
2. **Preparation:**
   - It is made after determining the **net profit or net loss** using the **Trading and Profit & Loss Account**.
   - The balance sheet reflects the **assets and liabilities** of the business at the **end of the accounting year**.
3. **Structure:**
   - **Left Side:** Liabilities (what the business owes)
   - **Right Side:** Assets (what the business owns)
4. **Equation Used:**

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

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

5. **Balance Sheet Format (simplified):**

Liabilities	Amount	Assets	Amount
Current Liabilities		Current Assets	
Long-term Liabilities		Long-term Investments	

Liabilities	Amount	Assets	Amount
Shareholder's Equity (Capital)		Fixed Assets (Land, Machinery)	

✅ **Example:**

Suppose a business has the following at year-end:

- **Cash:** ₹20,000
- **Inventory:** ₹30,000
- **Land:** ₹50,000
- **Loans Payable:** ₹25,000
- **Capital Invested:** ₹75,000

Balance Sheet:

Liabilities	**₹**	**Assets**	**₹**
Loans Payable	25,000	Cash	20,000
Capital	75,000	Inventory	30,000
		Land	50,000
Total	1,00,000	**Total**	1,00,000

B. Classification of Assets and Liabilities

---

1. Assets:

Assets refer to the **economic resources** possessed by a business.
Examples: Land, furniture, cash, debtors, stock, buildings, etc.

Types of Assets:

---

i. Fixed Assets:

- Long-term assets used for generating profit.
- Used **continuously in business operations**.
- Examples: Land, building, plant, machinery.

---

ii. Current Assets:

- Short-term assets expected to be **converted into cash within a year**.
- Also called **floating or circulating assets**.
- Examples: Cash, bank balance, stock, accounts receivable, prepaid insurance.

---

iii. Tangible Assets:

- Physical assets that can be **seen and touched**.
- Examples: Furniture, building, machinery, stock.

---

iv. Fictitious Assets:

- Not real assets. Represent **past losses** or **deferred expenses**.
- Shown temporarily on the balance sheet.
- Examples: Preliminary expenses, accumulated losses.

---

v. Intangible Assets:

- Assets with **no physical existence**, but have value.
- Examples: Goodwill, patents, copyrights.

---

vi. Liquid Assets:

- Assets that can be **quickly converted into cash**.
- Examples: Cash, marketable securities.

---

2. Liabilities:

Liabilities are the **financial obligations** of a business—what it owes to outsiders.

Types of Liabilities:

---

i. Fixed Liabilities:

- Long-term liabilities payable **only upon business closure**.

- Examples: Capital, long-term loans.

---

ii. Long-Term Liabilities:

- Payable **after more than one year**.
- Examples: Debentures, mortgage loans.

---

iii. Current Liabilities:

- Payable **within one year**.
- Examples: Bills payable, short-term loans, salaries payable.

---

iv. Contingent Liabilities:

- Not actual liabilities yet.
- May become liabilities **based on certain events**.
- Example: A pending court case.

✅ **Summary Table:**

Assets	Liabilities
Fixed Assets	Fixed Liabilities
Current Assets	Long-term Liabilities
Tangible Assets	Current Liabilities
Intangible Assets	Contingent Liabilities
Fictitious Assets	
Liquid Assets	

Que 3.3: Proforma of Balance Sheet

(A) In Order to Presence

This format arranges assets **from least liquid (intangible/fixed) to most liquid**, and liabilities **from long-term to short-term**.

Que 3.3. Give performa of balance sheet in order to presence and in order to liquidity.

Answer

A. In Order to Presence
Balance Sheet of.....
As on .....

Liabilities	Amount Rs.	Assets	Amount Rs.
Fixed Liabilities		**Intangible Assets**	
Capital	....	Goodwill	....
Long-term Liabilities		Patents	....
Loan from bank	....	Copyright	....
Debentures	....	**Fictitious Assets**	
Current Liabilities		Advertisement	....
Bills payable	....	Misc. Expenses	....
Sundry Creditors	....	Profit and Loss A/c	....
Bank Overdraft	....	**Fixed Assets**	
Outstanding Expenses	....	Machinery	....
Short term loan	....	Building	....
		Furniture and Fixture	....
		Motor car	....
		Liquid Assets	
		Cash in hand	....
		Cash in bank	....

✅ **Balance Sheet (In Order to Presence)**

Liabilities	**Amount (₹)**	**Assets**	**Amount (₹)**
Fixed Liabilities		**Intangible Assets**	
- Capital		- Goodwill	
- Long-term Liabilities		- Patents	
-- Loan from Bank		- Copyright	
-- Debentures		**Fictitious Assets**	
Current Liabilities:		- Advertisement	
- Bills Payable		- Misc. Expenses	
- Sundry Creditors		- Profit and Loss A/c	
- Bank Overdraft		**Fixed Assets**	

Liabilities	Amount (₹)	Assets	Amount (₹)
- Outstanding Expenses		- Machinery	
- Short-term Loan		- Building	
		- Furniture and Fixtures	
		- Motor Car	
		Liquid Assets	
		- Cash in Hand	
		- Cash in Bank	

(B) In Order to Liquidity

Liabilities	Amount Rs.	Assets	Amount Rs.
Current Liabilities		**Liquid Assets**	
Bills Payable	.....	Cash in Hand	.....
Sundry Creditors	.....	Cash at Bank	.....
Bank Overdrafts	.....	**Floating Assets**	.....
Outstanding Expenses	.....	Sundry Debtors	.....
Short-term Loan	.....	Investments	.....
Long-term Liabilities		Bill Receivable	.....
		Stock in Trade	.....
Loan from Bank	.....	Prepaid Expenses	.....
Debentures	.....	**Fixed Assets**	
Fixed Liabilities		Machinery	.....
Capital	.....	Building	.....
		Furniture and Fixtures	.....
		Motor Car	.....
		Fictitious Assets	
		Advertisement	
		Misc. Expenses	
		Profit and Loss A/c	
		Intangible Assets	
		Goodwill	
		Patents	
		Copyright	

This format arranges **assets from most liquid (cash) to least liquid (intangibles)**, and **liabilities from short-term to long-term**.

✅ **Balance Sheet (In Order to Liquidity)**

Liabilities	Amount (₹)	Assets	Amount (₹)
Current Liabilities		**Liquid Assets**	
- Bills Payable		- Cash in Hand	
- Sundry Creditors		- Cash at Bank	
- Bank Overdrafts		**Floating Assets**	
- Outstanding Expenses		- Sundry Debtors	
- Short-term Loan		- Investments	
Long-term Liabilities		- Bill Receivable	
- Loan from Bank		- Stock in Trade	
- Debentures		- Prepaid Expenses	
Fixed Liabilities		**Fixed Assets**	
- Capital		- Machinery	
		- Building	
		- Furniture and Fixtures	
		- Motor Car	
		Fictitious Assets	
		- Advertisement	
		- Misc. Expenses	

Liabilities	Amount (₹)	Assets	Amount (₹)
		- Profit and Loss A/c	
		Intangible Assets	
		- Goodwill	
		- Patents	
		- Copyright	

Que 3.4. Give examples of assets, liabilities, net worth, revenues, expenses, direct material, direct labour and overhead.

UPTU 2012-13, Marks 10

Q.3.4: Give examples of assets, liabilities, net worth, revenues, expenses, direct material, direct labour, and overhead.

---

1. Assets

Definition:
Assets are economic resources owned by a business which are expected to provide future benefits. They can be in the form of cash, receivables, inventory, land, machinery, etc.

Examples:

- Cash in hand
- Bank balance
- Accounts receivable (amount to be received from customers)
- Stock/inventory
- Land
- Machinery
- Building
- Furniture
- Goodwill
- Patents

---

2. Liabilities

Definition:
Liabilities are financial obligations or debts that a business owes to outsiders. They represent claims of creditors against the business's assets.

Examples:

- Bills payable
- Loans from banks
- Debentures
- Outstanding expenses (e.g., unpaid salaries, rent)
- Creditors (Sundry creditors)
- Bank overdraft
- Short-term loans
- Long-term liabilities (e.g., mortgage loans)

---

3. Net Worth

Definition:
Net worth is the owner's equity in the business. It represents the difference between total assets and total liabilities.

Formula:

Net Worth=Total Assets−Total Liabilities\text{Net Worth} = \text{Total Assets} - \text{Total Liabilities}Net Worth=Total Assets−Total Liabilities

Example:
If a business has assets worth ₹10,00,000 and liabilities worth ₹4,00,000, then
Net Worth = ₹10,00,000 - ₹4,00,000 = ₹6,00,000

---

4. Revenues

Definition:
Revenues are the earnings generated by a business from its core activities such as selling goods or services.

Examples:

- Sales (cash and credit)
- Interest received on bank deposits
- Discounts received from suppliers

- Rent received from subletting office space
- Commission received
- Service charges received

---

5. Expenses

Definition:
Expenses are the costs incurred in the process of earning revenue. These reduce the profit of a business.

Examples:

- Purchases (raw materials)
- Salaries and wages
- Rent paid
- Depreciation on assets
- Taxes (GST, Income Tax, etc.)
- Electricity bill
- Repairs and maintenance
- Insurance premium

---

6. Direct Material

Definition:
Direct materials are raw materials that are directly used in the production of goods.

Examples:

- Wood for making furniture
- Steel for manufacturing tools
- Fabric for stitching garments
- Electricity used directly in production machines

---

7. Direct Labour

Definition:
Direct labour includes the cost of workers directly involved in the manufacturing process.

Examples:

- Wages paid to machine operators
- Salary of assembly line workers
- Labour charges for cutting, stitching, welding etc.

---

8. Overhead

Definition:
Overheads are indirect costs that cannot be directly linked to production but are necessary for the business to operate.

Examples:

- Paper and stationery
- Watchmen's salary
- Office rent
- Telephone bills
- Administrative staff salaries
- Office electricity bill (not used in production)

Que 3.5. State the difference between trial balance and balance sheet.

Q.3.5: State the difference between Trial Balance and Balance Sheet

In this question, you're asked to compare **Trial Balance** and **Balance Sheet** — both are essential financial statements, but they serve very different purposes in accounting.

Here's a **detailed explanation** based on the tabular comparison shown in your snapshot:

🔍 **Comparison Between Trial Balance and Balance Sheet**

S. No.	Trial Balance	Balance Sheet
1.	It is prepared to check the **arithmetical accuracy** of the books of account.	It is prepared to **measure the financial position** of the business on a fixed date.
2.	It is **not possible** to get information regarding **profit or loss** from it.	It **shows the profit** or financial performance of the business.

S. No.	Trial Balance	Balance Sheet
3.	Preparation of **trial balance is desirable** to ensure accurate bookkeeping.	Preparation of **balance sheet is essential** for financial reporting.
4.	Two sides are headed as **debit and credit**.	Two sides are headed as **assets and liabilities**.
5.	It includes **all three accounts**: personal, real, and nominal.	It includes **only personal and real accounts** (no nominal accounts).
6.	Can be prepared **every month or anytime** for checking balances.	It is prepared **only at the end of the accounting year** (or financial period).
7.	It is prepared **without any adjustment entries**.	It includes **all adjustment entries** (e.g., depreciation, outstanding expenses).

✅ **Summary of the Difference**

Basis	Trial Balance	Balance Sheet
Purpose	To check arithmetic accuracy	To show financial position of the business
Accounts Included	Personal, Real, and Nominal	Personal and Real accounts only
Profit Calculation	Not possible	Shows profit/loss indirectly
Heading	Debit and Credit sides	Assets and Liabilities sides
Timing	Any time during the year	Only at end of the year
Adjustments	Not included	Includes all necessary adjustments

📌 **Example:**

- Suppose a business has:
  - Cash ₹50,000
  - Machinery ₹1,00,000
  - Creditors ₹30,000
  - Capital ₹1,20,000
  - Outstanding Rent ₹5,000

Trial Balance would list all these items as debit and credit, just to check the math.
Balance Sheet would use these to present:

- **Assets**: Cash ₹50,000, Machinery ₹1,00,000
- **Liabilities**: Creditors ₹30,000, Outstanding Rent ₹5,000
- **Capital**: ₹1,20,000

With adjustments (like outstanding rent), the balance sheet gives the true picture of the business's financial health.

1. Trial Balance:

A **Trial Balance** is a list of all the general ledger accounts in a company's books, with their respective debit or credit balances. It is prepared to **check the arithmetical accuracy** of the accounts and ensure that debits and credits are equal. It does not directly show profit or loss.

Purpose of Trial Balance:

- To verify that the books are mathematically correct.
- To make sure that **debits = credits**.
- It is the starting point for preparing final financial statements like the **Profit & Loss account** and **Balance Sheet**.

Example of a Trial Balance:

Let’s assume the following accounts for a small business:

Account	Debit (₹)	Credit (₹)
Cash	50,000	
Accounts Receivable	30,000	
Capital		1,20,000
Rent Expense	10,000	
Sales		1,50,000
Accounts Payable		20,000

Here, the **total debits** = ₹50,000 (Cash) + ₹30,000 (Accounts Receivable) + ₹10,000 (Rent Expense) = **₹90,000**.
The **total credits** = ₹1,20,000 (Capital) + ₹1,50,000 (Sales) + ₹20,000 (Accounts Payable) = **₹90,000**.

Since **debits = credits**, the trial balance confirms that the **arithmetical accuracy** of the books is correct.

---

2. Balance Sheet:

A **Balance Sheet** is a financial statement that presents the financial position of a company at a specific point in time. It is divided into two main sections: **Assets** (what the business owns) and **Liabilities** (what the business owes).

Purpose of Balance Sheet:

- To show the financial health of the business.
- It gives the **position of assets** and **liabilities**.
- It is based on the **accounting equation**: Assets=Liabilities+Equity (Capital)\text{Assets} = \text{Liabilities} + \text{Equity (Capital)}Assets=Liabilities+Equity (Capital)

Balance Sheet Format:

Assets	**₹**	**Liabilities & Equity**	**₹**
Current Assets		**Current Liabilities**	
Cash	50,000	Accounts Payable	20,000
Accounts Receivable	30,000	Short-term Loans	10,000
Fixed Assets		**Long-Term Liabilities**	
Equipment	1,00,000	Loan	50,000
Total Assets	1,80,000	**Total Liabilities & Equity**	1,80,000

Balance Sheet Analysis:

- **Assets:**
  - **Current Assets**: Cash (₹50,000) + Accounts Receivable (₹30,000) = ₹80,000
  - **Fixed Assets**: Equipment (₹1,00,000)
  - **Total Assets** = ₹80,000 + ₹1,00,000 = **₹1,80,000**
- **Liabilities:**
  - **Current Liabilities**: Accounts Payable (₹20,000) + Short-term Loans (₹10,000) = ₹30,000

- **Long-Term Liabilities**: Loan (₹50,000)
- **Total Liabilities** = ₹30,000 + ₹50,000 = ₹80,000

- **Equity (Owner's Capital)** = **₹1,00,000** (the remaining balance after deducting liabilities from total assets).

Thus, the accounting equation **Assets = Liabilities + Equity** is balanced:
₹1,80,000=₹80,000(Liabilities)+₹1,00,000(Equity)₹1,80,000 = ₹80,000 (\text{Liabilities}) + ₹1,00,000 (\text{Equity})₹1,80,000=₹80,000(Liabilities)+₹1,00,000(Equity)

Que 3.8. Define the assessment of economic viability and discuss its important techniques.

Q3.8 – Define the assessment of economic viability and discuss its important techniques.

Meaning of Economic Viability:

Economic viability means **whether a proposed project or idea will work successfully in economic terms**. It's not just about technical feasibility (whether it can be built or done), but also whether the project is:

- **Economically sensible**
- **Commercially profitable**

A project is **economically viable** if it can:

- Generate adequate income
- Justify the investment made
- Cover operating costs
- Yield profit over time

Important Points:

1. **Viability** = Will it work profitably?
2. It is **multi-dimensional**: A project must be viable **technically**, **economically**, and **commercially**.
3. Even a technically sound project might not be viable economically.
    - For example: Building a factory in Rajasthan may be technically possible, but building it in Ludhiana or Panipat might make more commercial sense due to better infrastructure or market access.

A. Evaluation of Project Profitability:

This involves analyzing whether a project will generate sufficient **revenue** and **profit** to justify the investment.

<u>Techniques to Assess Economic Viability:</u>

Let's understand the 4 key techniques mentioned with examples.

---

1. Benefit-Cost Analysis Method (BCA):

This method compares the **total benefits** of a project to the **total costs**.

- **Formula:**

Benefit-
cost ratio=Benefit – Disbenefit – MaintenanceTotal cost of project – Salvage value\text{Benefit-cost ratio} = \frac{\text{Benefit – Disbenefit – Maintenance}}{\text{Total cost of project – Salvage value}}Benefit-
cost ratio=Total cost of project – Salvage valueBenefit – Disbenefit – Maintenance

Example:

- Total benefit expected: ₹10,00,000
- Disbenefits (e.g., environmental impact): ₹50,000
- Maintenance cost: ₹1,00,000
- Total project cost: ₹7,00,000
- Salvage value (end value of asset): ₹50,000

$$\text{Benefit-cost ratio} = \frac{\text{Benefit} - \text{Disbenefit} - \text{Maintenance operation cost}}{\text{Total cost of project} - \text{Salvage value}}$$

Benefit-
cost ratio=10,00,000−50,000−1,00,0007,00,000−50,000=8,50,0006,50,000=1.31\text{Benefit-cost ratio} = \frac{10,00,000 - 50,000 - 1,00,000}{7,00,000 - 50,000} = \frac{8,50,000}{6,50,000} = 1.31Benefit-
cost ratio=7,00,000−50,00010,00,000−50,000−1,00,000=6,50,0008,50,000=1.31

Since B/C ratio > 1, the project is economically viable.

---

2. Discounted Cash Flow (DCF) Method:

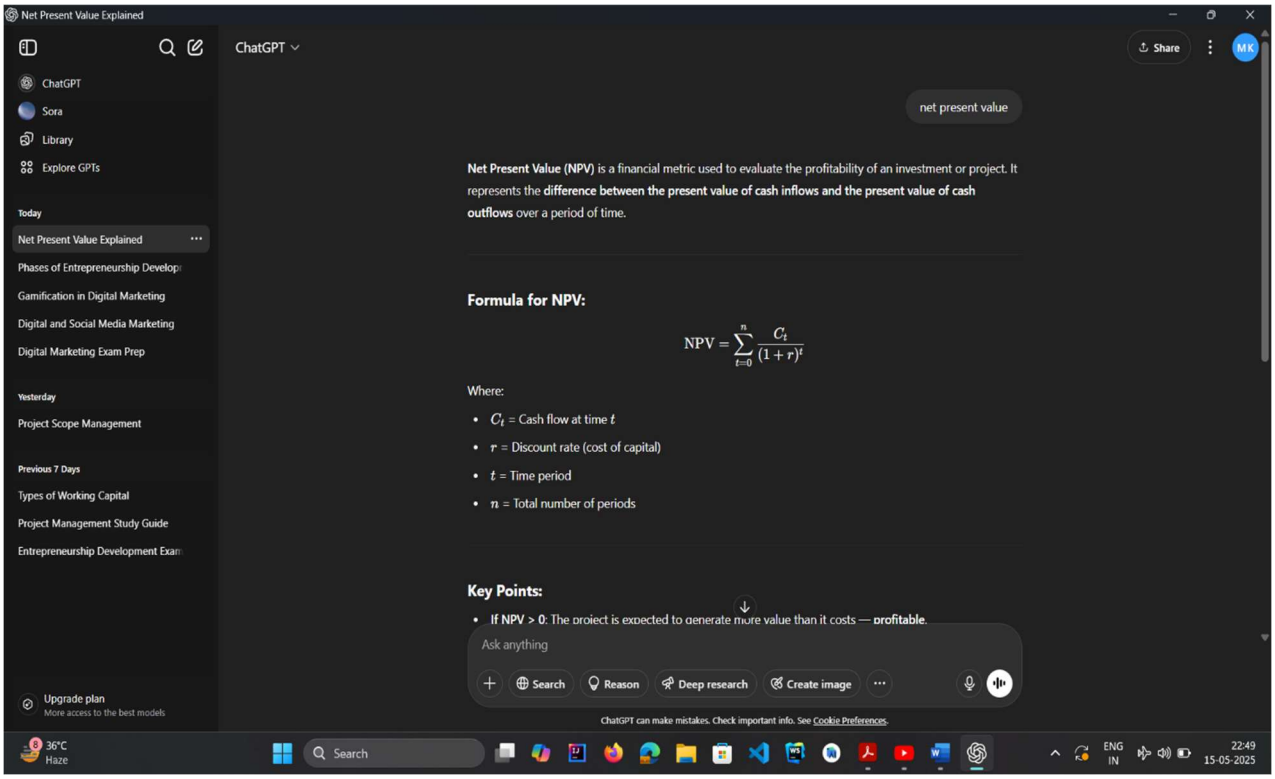
This method evaluates the project based on **cash flows over time** but has limitations:

- It **does not consider time value of money** properly.
- It ignores that **money now is more valuable than money later**.

So this method is **less reliable** for long-term projects.

---

4. **Net Present Value (NPV) Method:**



5.

This method **considers the time value of money** and discounts future cash inflows using a discount rate to calculate the net present value.

- If **NPV > 0**, the project is **viable**.
- If **NPV < 0**, the project is **not viable**.

Example:

- Initial investment: ₹1,00,000
- Cash inflows over 3 years: ₹40,000, ₹50,000, ₹30,000
- Discount rate: 10%

Using the present value formula:

NPV=40,000(1+0.1)1+50,000(1+0.1)2+30,000(1+0.1)3−1,00,000\text{NPV} = \frac{40,000}{(1+0.1)^1} + \frac{50,000}{(1+0.1)^2} + \frac{30,000}{(1+0.1)^3} -

1,00,000NPV=(1+0.1)140,000+(1+0.1)250,000+(1+0.1)330,000−1,00,000 =36,364+41,322+22,539−1,00,000=₹226= 36,364 + 41,322 + 22,539 - 1,00,000 = ₹226=36,364+41,322+22,539−1,00,000=₹226

Since NPV is **positive**, the project is viable.

---

4. Internal Rate of Return (IRR) Method:

IRR is the discount rate at which **NPV becomes zero**. It shows the rate of return the project is expected to earn.

- If **IRR > discount rate**, the project is **viable**.

Formula:

d. Internal Rate of Return Method :

1. This method uses the discounted cash flow rate which equates the present value of the future cash inflows with the initial investment.
2. It is a type of discounted cash flow techniques which takes into account the time factor to value the future cash flows.
3. The internal rate of return is the discounted rate which makes the net present value equal to zero. The cash flow throughout the life of the project is forecasted and the discount rate is calculated as :

$$\text{IRR} = \frac{CF_0}{(1+r)^0} + \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \dots \frac{CF_n}{(1+r)^n}$$

where,
CF = Cash flows,
CF_1 = Cash flow at the end of 1st year,
CF_n = Cash flow at the end of nth year,
r = Discounted rate, and
n = Number of years (life of the project).

IRR=CF1(1+r)1+CF2(1+r)2+⋯+CFn(1+r)n\text{IRR} = \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \dots + \frac{CF_n}{(1+r)^n}IRR=(1+r)1CF1+(1+r)2CF2+⋯+(1+r)nCFn

Where:

- **CF** = Cash flows
- **r** = IRR
- **n** = project life

Example:

If the IRR of a project is **15%** and your cost of capital is **10%**, then the project is profitable and viable.

Conclusion:

Assessing **economic viability** is crucial before implementing any project. It ensures:

- Resources are used wisely
- The business earns profits
- The project is sustainable in the long run

The techniques like **Benefit-Cost Ratio, NPV, IRR, and DCF** are tools to help an entrepreneur make sound financial decisions.

Que 3.9. **"Decision-making is the essence of managing." Explain this statement.**

Q3.9 – "Decision-making is the essence of managing." Explain this statement with details and examples.

Meaning of Decision-Making:

According to McFarland:

"A decision is an action of choice wherein an executive forms a conclusion about what must be done in a given situation."

In simpler words:

- Decision-making is the process of **selecting the best course of action** from several possible alternatives.
- It is a **core managerial function**, as **every managerial activity begins with and ends in a decision**.

Why is Decision-Making the Essence of Managing?

Management is all about **planning, organizing, directing, and controlling**—and all these involve taking decisions. Without decision-making:

- No action can be taken,
- No strategy can be implemented, and
- No objective can be achieved.

Thus, **decision-making lies at the heart of all managerial work.**

Characteristics of Decision-Making:

1. **It is a process of choice** – selecting one best alternative among many.
2. **Human involvement** – requires judgment, intelligence, and reasoning.
3. **Based on reasoning** – it is not random or automatic.
4. **Environment dependent** – different situations may need different decisions.
5. **Time-bound** – every decision has a time factor attached.
6. **Purpose-driven** – always taken to achieve specific goals.

Example:

Let's say a company is facing declining sales.

- The manager defines the problem (sales are falling),
- Collects data (customer feedback, competitor pricing),
- Develops alternatives (launch a new product, reduce prices, improve ads),
- Reviews pros and cons,
- Chooses the best alternative (say, reduce price),
- Implements it.

This whole process is **decision-making**, and it determines the **company's survival and growth.**

Significance of Decision-Making in Management:

1. **No business survives without decisions.**
    - Every action is based on some decision (hiring staff, launching products, etc.).
2. **Core of all management functions.**
    - Every function like planning, organizing, staffing, etc. involves decisions.
3. **Spreads across all levels.**
    - From top managers deciding policy to supervisors deciding schedules.
4. **Improves efficiency.**
    - Correct decisions reduce waste, save cost, and increase profits.
5. **Sets goals and strategies.**
    - Planning and policy-making are just structured forms of decision-making.
6. **Regulates performance.**

- Good decisions help in controlling and evaluating employee and business performance.

Scientific Steps of Decision-Making:

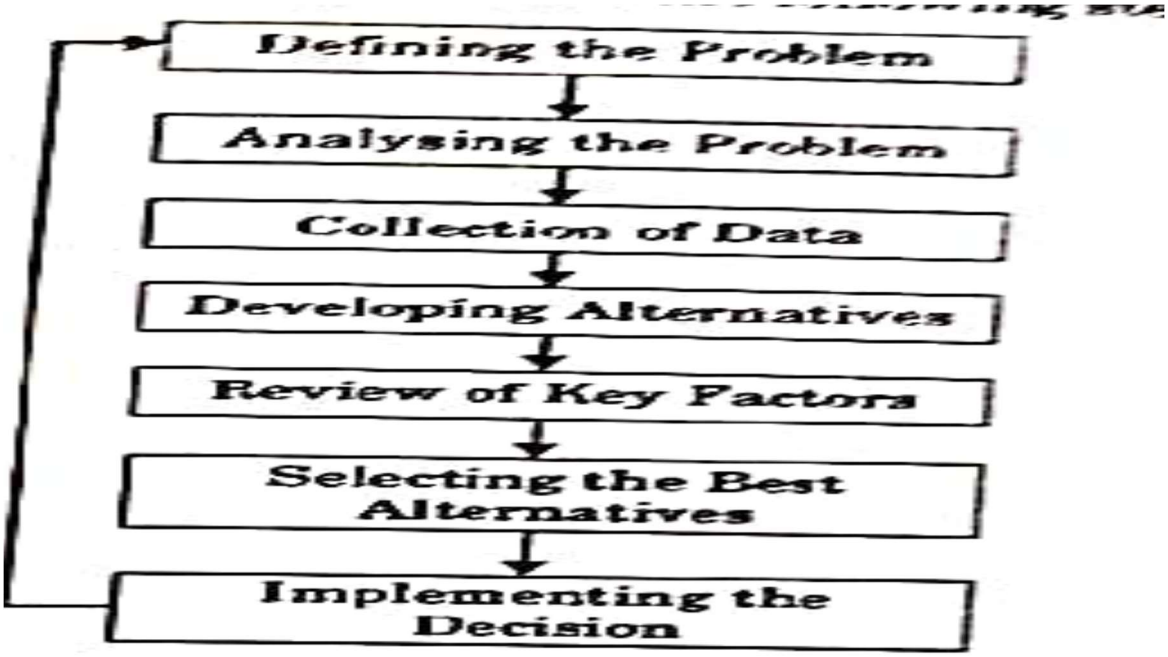
As shown in the image, decision-making is a logical and structured process:

1. **Defining the problem** – What exactly needs to be decided?
2. **Analyzing the problem** – Study the issue thoroughly.
3. **Collecting data** – Use facts and evidence.
4. **Developing alternatives** – Identify different possible solutions.
5. **Review of key factors** – Analyze pros and cons.
6. **Selecting the best alternative** – Choose the most feasible option.
7. **Implementing the decision** – Act upon it.

Conclusion:

Decision-making is not just one part of management—it is the **heart of management.**

Every action taken by a manager is based on some decision. Therefore, **decision-making truly is the essence of managing.**



Que 3.10. What are manufacturing overheads ? How are they allocated ?

UPTU 2012-13, Marks 10

✅ **Q3.10 – What are manufacturing overheads? How are they allocated?**

(Asked in UPTU 2012-13, 10 Marks)

A. Manufacturing Overheads – Meaning:

Manufacturing Overhead (also known as **factory overhead**, **factory burden**, or **production overhead**) refers to all the **indirect costs** that a company incurs in the process of **producing goods**, **excluding**:

- Direct materials
- Direct labor

These are the costs that are **not directly traceable to specific units** of product but are necessary for production.

✅ **Examples of Manufacturing Overheads:**

1. **Indirect labor** – Wages of factory supervisors, quality control inspectors
2. **Indirect materials** – Lubricants, cleaning supplies, small tools
3. **Depreciation** – On factory equipment
4. **Factory rent** – Building lease/rent
5. **Utilities** – Electricity, water for production area
6. **Maintenance & repairs** – For machinery and equipment
7. **Factory administration** – Office salaries related to production
8. **Employee benefits** – For factory workers (insurance, medical, etc.)

B. Allocation of Manufacturing Overheads:

✅ **What is Allocation?**

Allocation means assigning or distributing overhead costs to the units of production or departments so that **total product cost** can be calculated accurately.

✅ **Why Allocation is Important:**

1. **Required by accounting rules** – for correct inventory valuation and cost control.
2. **Overhead is often larger than direct costs** – especially in automated factories.
3. **Ensures correct cost of finished goods** – which impacts pricing and profits.
4. **Overhead is only added to WIP (work-in-progress) or finished goods** – not raw materials.

✅ **Common Overhead Allocation Methods:**

1. **Based on Direct Labor Hours**
   - E.g., ₹50 of overhead per labor hour
2. **Based on Machine Hours**
   - E.g., ₹100 of overhead per machine hour used
3. **Based on Units Produced**
   - E.g., ₹20 overhead per unit
4. **Based on Material Costs or Direct Costs**
   - E.g., 10% of total direct costs

✅ **Simple Example:**

Let's say a company incurs the following monthly factory overhead:

- Factory Rent: ₹20,000
- Machine Maintenance: ₹10,000
- Supervisor Salary: ₹30,000
- Power & Electricity: ₹15,000
- Total Overhead = ₹75,000

If 1,500 machine hours were used in the month,
Then, **Overhead Rate = ₹75,000 / 1,500 = ₹50 per machine hour**

So, if one product used 2 machine hours, it would be charged:
→ **₹50 × 2 = ₹100** overhead cost.

✅ **Summary:**

Aspect	Details
What is it?	All **indirect costs** of production (not direct labor/materials)
Examples	Rent, depreciation, supervisor salary, maintenance, utilities
Not included	Direct materials, direct labor
Why allocate?	To fairly charge costs to WIP or finished goods
Allocation methods	Based on labor hours, machine hours, units, or total cost percentage

What do you mean by production planning and control? Explain the steps involved in production control.

---

ue 3.11. What do you mean by production planning and control plain the steps involved in production control.

Meaning of Production Planning and Control:

According to Alford and Beatty,
"Production planning and control comprise the planning, routing, scheduling, dispatching and follow-up functions in the production process, so organised that movement of materials, performance of machines and operations of labour are directed and coordinated as to quantity, quality, time and place."

In simple terms, **Production Planning and Control (PPC)** refers to the process of **planning the production activities in advance** and **controlling them during execution** to ensure that goods are produced **efficiently, on time, and within budget**.

Importance:

1. Ensures smooth and uninterrupted production.
2. Helps deliver goods on time.
3. Minimizes wastage and controls costs.
4. Optimizes the use of manpower, materials, and machines.
5. Maintains consistency in quality and quantity of production.

Objectives of Production Planning and Control:

1. To **determine the production sequence** to avoid interruptions.
2. To **coordinate schedules** of various departments.

3. To **plan plant capacity** for future production needs.
4. To maintain **sufficient inventory** and **stable employment**.
5. To ensure **on-time delivery** and meet customer demands.
6. To **evaluate performance** of workers and workshops.

Steps / Elements of Production Planning and Control:

A. Routing

- Decides the **path or route** through which materials should flow for production.
- Determines the **sequence of operations**.
- Example: In a car manufacturing unit, routing decides if the body will be painted first or fitted with engines.

B. Scheduling

- Fixes the **starting and finishing time** of each job.
- Prepares a **time table** for manufacturing activities.
- Example: If assembling a mobile takes 2 hours, scheduling ensures it starts at 10 AM and finishes by 12 PM.

C. Loading

- Assigns work to machines or workers.
- Ensures **optimum use of machines** and avoids overburdening.
- Example: If machine A is idle, the supervisor assigns the next production batch to it.

D. Dispatching

- Issues orders for starting production.
- Ensures that **plans are implemented properly**.
- Example: A dispatch note is given to start cutting fabric in a garment unit.

E. Expediting or Follow-Up

- Monitors progress and ensures that production is **on schedule**.
- Helps identify delays or faults in production.
- Example: If packaging is delayed, the manager follows up to resolve the issue.

F. Corrective Action

- Takes necessary steps if **production deviates from plan**.

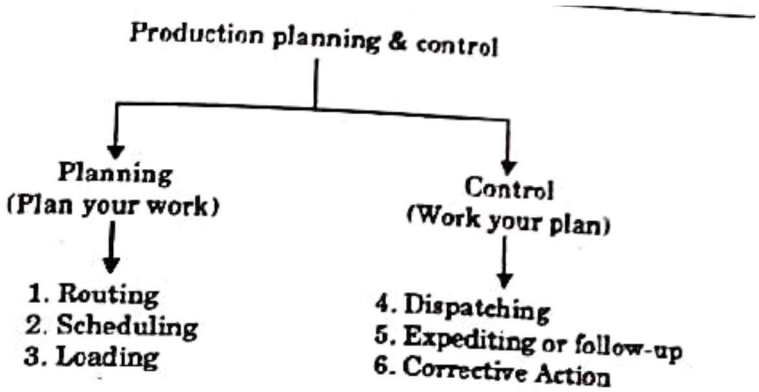
- May involve rescheduling, changing operations, or adding labor.
- Example: If machine breakdown occurs, production is shifted to another machine.

Conclusion with Example:

Suppose a furniture factory gets an order for 100 wooden chairs.

- **Routing** will decide in which order cutting, assembling, polishing, and packaging should happen.
- **Scheduling** will fix dates for each process—e.g., cutting on Day 1, assembling on Day 2.
- **Loading** will assign machines and workers to each task.
- **Dispatching** will issue instructions to start production.
- **Expediting** ensures the entire process is on track.
- **Corrective Action** is taken if the polishing machine breaks down and delays the schedule.

This ensures the chairs are made **efficiently, on time, and with good quality.**



Q.3.12: What is meant by quality control? Why is it important? Briefly explain the methods of quality control.

Meaning of Quality Control:

Quality Control refers to the **systematic control** of various factors that affect the quality of a product. It ensures that the products manufactured meet **certain set standards** and perform as expected by the customer.

It involves:

- **Checking the product's quality**
- **Maintaining quality standards**

- **Taking corrective action** if the standards are not met

✅ **Example:**
In a biscuit manufacturing company, every batch is checked for color, taste, weight, and packaging before it is packed for sale. This is quality control.

Importance of Quality Control:

1. **Ensures Standardization:** Maintains consistency in the quality of products.
2. **Avoids Waste:** Helps in reducing the production of defective or substandard products.
3. **Customer Satisfaction:** Ensures customers get reliable and quality goods, increasing trust.
4. **Employee Morale:** Boosts motivation among employees when quality products are produced.
5. **Better Utilization of Resources:** Minimizes cost by reducing waste and rework.
6. **Builds Goodwill:** Enhances company image by providing high-quality goods and services.

Objectives of Quality Control:

1. To establish **standards** that are acceptable and economical.
2. To define the **quality of raw materials** to be used.
3. To determine **methods of production** and improve them if needed.
4. To detect and prevent **errors or deviations** in production.
5. To suggest **remedial actions** for product improvements.

Methods of Quality Control:

a. Inspection:

It involves physically checking and examining products.

- **Purpose:** To detect defects in the product.
- **Types:**
    - **Remedial Inspection:** If defect is found, steps are taken to fix it.
    - **Preventive Inspection:** Aimed at preventing defects in the first place.

✅ **Example:** Inspecting a car's engine before it leaves the factory.

---

b. Statistical Quality Control (SQC):

Uses statistical methods and tools for quality checking.

- It is based on **probability and sampling.**
- Instead of checking every product, a **sample** is taken and tested.
- If the sample passes, the whole batch is assumed to be good.

✅ **Example:** In a pen factory, out of 1,000 pens produced, only 100 are checked. If those 100 pass the test, the entire lot is considered acceptable.

Summary Table:

Aspect	Details
Meaning	Systematic process to ensure product quality meets standards
Importance	Ensures standard products, customer satisfaction, reduces waste
Objectives	Standardization, improve methods, detect deviations
Methods	1. Inspection (remedial/preventive) 2. Statistical Quality Control (SQC)

Que 3.13. Define the term "wages". What factors affect wages of workers ? What is the role of financial incentives ?

3.13: Define the term "wages". What factors affect wages of workers? What is the role of financial incentives? in a detailed and simple way, with examples.

Definition of Wages

Wages refer to the **remuneration paid to a worker** for his services to an organization. This is a **financial reward** for the work or labor performed by an employee.

📄 **Example:** If a factory worker is paid ₹500 per day for assembling machines, that amount is his **wage**.

Difference Between Wage and Salary

- **Wage** – Usually paid to **workers/laborers** on a **daily or hourly** basis.
- **Salary** – Usually paid to **employees** like office staff on a **monthly** basis and is fixed.

Factors Affecting Wages of Workers

Wages are influenced by several **economic, industrial, and organizational factors**:

a. Demand and Supply of Labour

- Wages are determined by how many workers are **available (supply)** and how many are **needed (demand)**.
- If skilled workers are in short supply, **wages increase**.

🔧 *Example:* Skilled electricians are in high demand; hence, they may earn more than unskilled laborers.

b. Ability to Pay

- If a company has high profits, it can afford to pay higher wages.
- Small businesses with less revenue might offer lower wages.

c. Cost of Living

- If the **cost of living** in a city increases, wages must also be adjusted so that employees can afford basic needs like food, housing, etc.

🏙️ *Example:* A delivery boy in Mumbai may get more wages than in a small town due to higher living expenses.

d. Productivity of the Worker

- More productive workers can be rewarded with better wages.
- Encourages workers to be more efficient.

System of Wage Payment

There are **two main wage systems**:

1. Time Wage System

- Worker is paid based on **time spent**: hourly, daily, weekly, or monthly.
- Common in jobs where quality is more important than speed.

🕐 *Example:* A security guard is paid based on how many hours he works.

2. Piece Wage System

- Worker is paid based on the **quantity of work completed**.
- Encourages productivity.

🧵 *Example:* A tailor gets ₹50 per shirt stitched — more shirts stitched, more money earned.

Incentives

An **incentive** is something that **motivates a person** to work better and achieve goals.

✅ **Types of Financial Incentives:**

1. **Bonus**
2. **Performance Pay**
3. **Commission**
4. **Profit Sharing**

✅ **Role of Financial Incentives:**

1. Motivate workers to be **more productive**.
2. Improve **job satisfaction**.
3. Increase **efficiency** and **output**.
4. Help in **retaining good employees**.
5. Fulfill the **basic needs** of workers (food, clothing, shelter).
6. Give **status and respect** in society when income increases.

💸 *Example:* A sales executive earning a basic salary of ₹20,000 gets an additional ₹10,000 commission for achieving sales targets. This extra pay is a financial incentive.

Conclusion

- Wages are a crucial part of compensation and motivation.

- They depend on multiple factors like demand, company profits, and cost of living.
- Financial incentives further **boost motivation** and **help retain employees**.

Que 3.14. Define marketing and explain its objectives. How does it differ from selling ?

Question 3.14: Define marketing and explain its objectives. How does it differ from selling?

✅ Definition of Marketing

Marketing is a **consumer-oriented activity** that focuses on understanding and satisfying customer needs **before, during, and after** the production of goods or services.

📘 **Simple Definition:**
Marketing is the process of finding out what the customer wants and making the product available to them in the right place, at the right price, and with the right promotion.

🎯 **Example:**
A company like Amul first studies what flavor of ice cream is trending (like chocolate fudge), makes it, and promotes it with offers and advertisements — that's marketing.

🎯 Objectives of Marketing

Marketing is not just about selling a product, it is about **creating value for customers**. The main objectives are:

a. Identifying Needs and Wants

1. Marketing helps identify **what customers want or need**.
2. The purpose is to **satisfy those needs** better than the competitors.

Example: If customers want eco-friendly packaging, companies will offer biodegradable wrappers.

---

b. Creating a Market Offering

1. Market offering means providing a product or service by defining features like **size, shape, color, price, etc.**
2. A good market offering ensures **customer satisfaction**.

Example: A phone company launches a new mobile with 3 color options, 64 GB/128 GB variants, and budget pricing.

---

c. Customer Value

1. Marketing aims to **deliver value** by offering useful, high-quality products at a reasonable price.
2. Customers buy when they feel the **product is worth the money**.

Example: If a ₹10 toothpaste lasts 30 days and gives fresh breath, the customer sees it as "good value".

---

d. Exchange Mechanism

1. Marketing facilitates the **exchange of products/services** between buyers and sellers.
2. Customers give **money**, and companies give **products/services**.

Example: A person pays ₹100 to buy a book that satisfies their need for knowledge.

✍️ **Questions Solved by Marketing:**

1. What is to be marketed?
2. Who is the target market?
3. Who are the customers?

🔁 **Difference Between Marketing and Selling**

Basis	Marketing	Selling
1. Meaning	Marketing is the process of understanding customer needs and creating products to meet them.	Selling is simply the transfer of product from seller to buyer.
2. Objective	Focus on **customer satisfaction**.	Focus on **increasing sales and revenue**.
3. Scope	Involves everything from **product planning to after-sales service**.	Only concerned with the **final sale of the product**.
4. Profit	Profit through **customer satisfaction** and loyalty.	Profit through **sales volume**.

Basis	Marketing	Selling
5. Emphasis	Focus on **converting needs into products**.	Focus on **converting product into cash**.
6. Demand	Demand is **created and maintained** through promotion and quality.	Assumes that **demand already exists**.

📌 **Summary with Example**

Imagine a company wants to sell a new herbal shampoo:

- **Marketing**: The company first **researches** what kind of shampoos people want (e.g., anti-hair fall, natural ingredients). Then, it **develops** the product, decides **pricing**, **advertises** it, and ensures **good customer service**.
- **Selling**: A salesperson at a store **persuades the customer** to buy that herbal shampoo — that's just the **final step**.

✅ **Conclusion:**

- **Marketing is broader** and focuses on the **entire process** from understanding customer needs to after-sale service.
- **Selling is a part of marketing**, mainly focused on getting the product into the customer's hands.

Que 3.15. **How the selling price of a product is determined ?**

UPTU 2013-14. Marks 10

Q. 3.15: How is the selling price of a product determined?

The selling price of a product is **determined by multiple factors**, primarily based on the **law of demand and supply**. However, various market and business-related considerations also play a vital role. Here's a detailed explanation:

Key Points in Price Determination:

1. **Law of Demand and Supply**:
    - When **demand is high** and **supply is low**, the price **increases**.
    - When **supply is more** than the **demand**, the price **decreases**.
    - Prices fluctuate depending on **market conditions**.

Example: During a festival season, the demand for sweets increases. If the supply doesn't meet the demand, sellers raise prices.

---

2. **Producer's Pricing Decision**:
    - A producer generally **sets the base price** when the product leaves the **factory**.
    - This price may later change as it reaches the **market** through channels.

---

3. **Consumer Expectations**:
    - The price should be **reasonable and justified** based on the **value offered**.
    - It must meet or exceed the **post-purchase experience** of consumers.

---

4. **Market Competition**:
    - If a product faces **competition or substitutes**, pricing should be adjusted accordingly to stay competitive.
    - Monopoly products can have **premium pricing**, but competitive markets require **affordable pricing**.

---

5. **Number of Middlemen**:
    - More middlemen mean **more cost layers** and can increase the final consumer price.
    - Price must consider the **wholesale rate, tax, and retail margin**.

---

6. **Cost Factors**:
    - Final price must cover:
        - **Cost of production**
        - **Marketing expenses**
        - **Taxes**
        - **Profit margin**

Example: If the cost of making a pen is ₹10, marketing costs ₹3, and desired profit is ₹2, the selling price could be ₹15.

7. **Customer Psychology**:
    - If customers feel the price is **justified by value**, they are more likely to buy.
    - Pricing should align with **customer satisfaction**.

---

8. **Sales Observation and Future Planning**:
    - Once pricing is set, producers should **monitor sales**, **market reactions**, and **competition**.
    - Adjust prices over time as per consumer behavior and market trends.

---

9. **Futuristic Pricing**:
    - Pricing should be **long-term sustainable**, ensuring demand and profits for future periods.
    - Avoid short-term pricing strategies that hurt long-term growth.

Conclusion:

The price of a product is not fixed randomly. It is a result of:

- Market conditions
- Cost structures
- Demand-supply dynamics
- Consumer psychology
- Competitive environment

A well-set price ensures **customer satisfaction**, **sales volume**, and **business profitability**.

Que 3.16. **Advertising through television is favourable to big enterprise. But indirectly it affects small emerging entrepreneurs. Do you agree ? Justify your answer.**

Ques. 3.16 – "Advertising through television is favourable to big enterprise. But indirectly it affects small emerging entrepreneurs. Do you agree? Justify your answer." in full detail, as shown in your textbook image.

✅ **Answer Explanation:**

Definition of Adve2rtising:

1. **Advertising** is any paid form of **non-personal presentation and promotion** of ideas, goods, or services of an identified sponsor.
2. The **message** that is presented or disseminated is called an **advertisement**.

📌 **Important Features of Advertising:**

a. **Non-personal Communication**:

- Advertising is **non-personal**—there is no direct contact between advertiser and customers.
- It is also called **non-personal salesmanship**.

b. **Paid Promotion**:

- It is a **paid form** of communication, done through different media channels like TV, radio, newspapers, internet, etc.

c. **Sponsored by a Specific Entity**:

- Advertising is done by a **sponsor**—this could be a **producer, manufacturer, dealer**, or **trader**.
- The sponsor pays to deliver the message to the audience.

🔍 **Answer to the Question:**

Is television advertising favourable to big enterprises? Yes.

Why?

1. **Big enterprises** have large budgets.
    - They can **easily afford expensive TV advertisements**.
    - These ads reach **millions of people at once**, increasing brand visibility and sales.
2. **Mass Communication**:
    - TV ads can promote products on a **national or even international scale**.
    - This creates **brand recognition** and **consumer trust**, giving big companies a strong advantage.

⚠️ **How does it affect small emerging entrepreneurs?**

1. **High Cost Barrier**:
    - TV advertising is **very costly**—small businesses cannot afford it.
    - This creates an **unfair advantage** for big companies who dominate the media space.
2. **Limited Exposure**:
    - Small entrepreneurs can only advertise through **cheaper mediums** like pamphlets, local radio, or online ads.
    - They get **less exposure**, making it difficult to compete with big brands.
3. **Consumer Preference Shift**:
    - Customers often **trust TV-advertised brands more**.
    - This **diverts attention and sales** away from smaller businesses.

✅ **Conclusion (Justification):**

Yes, the statement is correct. **Television advertising strongly benefits big enterprises** due to their financial strength and mass outreach. However, it **indirectly harms small entrepreneurs** by limiting their visibility, making competition harder, and increasing customer bias toward big brands.

💡 **Example:**

- A big brand like **Coca-Cola** can run nationwide TV ads daily.
- A small local juice business can't afford such advertising and loses customers to the bigger brand—even if the local product is healthier or cheaper.

Que 3.17. What do you understand by industrial relations ? Also iscuss its objective and significance.

Ques. 3.17 – "What do you understand by industrial relations? Also discuss its objective and significance." in full detail, with an example:

✅ **Definition of Industrial Relations:**

1. **Industrial Relations** refer to all types of **relationships between the parties** involved in an industry.
2. These parties include:

- **Workers**
- **Management (employers/owners)**

3. According to **Dale Yoder**, industrial relations refer to the relationship **between management and employees** or **among employees and their organization** that arise out of **employment**.

📚 **Scope of Industrial Relations:**

It includes three main areas:

1. **Relations between Manager and Individual Workers**
2. **Collective Relations** – e.g., employer and **labour unions**
3. **Role of Government** in regulating industrial relationships

---

🎯 **Objectives of Industrial Relations:**

a. **Promote Healthy Labour-Management Relations**

- Encourage cooperation between workers and management for better working conditions and production.

b. **Protect Interests of Employees and Management**

- Ensures fair treatment, mutual respect, and job satisfaction for workers.
- Helps management by maintaining peace and productivity.

c. **Raise Productivity**

- By creating a harmonious work environment, productivity is improved.

d. **Minimise Industrial Conflicts**

- Helps prevent **strikes, lockouts, and disputes** by resolving issues peacefully.

e. **Reduce Turnover and Absenteeism**

- When workers are satisfied, they are more regular and committed.

f. **Encourage Worker Participation in Management**

- Builds a sense of belonging and accountability among employees.

🌟 **Significance of Good Industrial Relations:**

a. Industrial Peace:

- Good relations prevent disputes and strikes.
- Ensures **smooth operations** and industrial growth.

b. Higher Productivity:

- Workers stay motivated and efficient when treated well.

c. Industrial Democracy:

- Encourages **consultation between workers and management**.
- Leads to better decisions and workplace harmony.

d. Fair Benefits to Workers:

- Helps ensure **both economic and non-economic benefits** like respect, safety, and job security.

🔧 **Measures to Improve Industrial Relations:**

a. Progressive Management:

- Management should be aware of its responsibilities and work positively.

b. Atmosphere of Mutual Trust:

- Promote cooperation, confidence, and **respect** between employers and workers.

c. Mutual Accommodation:

- Resolve conflicts through **negotiation**, not confrontation.

d. Worker's Participation in Management:

- Encourage schemes like **work committees and joint consultations**.

e. Sound Personnel Policies:

- Uniform and fair HR policies in consultation with employee representatives.

💡 **Example:**

Suppose a company like **Tata Steel** forms a **joint committee** with workers and managers to discuss working conditions and salaries. Because of this mutual discussion:

- Employees feel respected and included.
- The company avoids strikes.
- Productivity and employee morale increase.

This is an example of **good industrial relations** in practice.

Question 3.18:

Que 3.18. What do you mean by inventory control ? Give objectives and advantages of inventory control.

"What do you mean by inventory control? Give objectives and advantages of inventory control."
in **great detail** with **examples**, based strictly on the content shown in your images.

Meaning of Inventory Control:

Inventory Control is the process of supervising and managing the supply, storage, and accessibility of items to ensure an adequate supply without excessive oversupply. It involves determining **what items**, **how much**, and **when** they are to be stocked.

➡️ It covers:

- **Raw materials**
- **Work-in-progress items**
- **Finished goods**

🟩 **Key Point**: It is **not feasible to eliminate inventory** completely, but it is essential to control it efficiently because it is considered an **idle resource** (i.e., it does not generate revenue unless used or sold).

Objectives of Inventory Control:

1. ✅ **Ensure continuous supply** of materials, work-in-progress (WIP), and finished goods for smooth operations.
2. ✅ **Reduce excess investment** in inventory to free up capital.
3. ✅ Ensure that production does not suffer due to stock-outs.
4. ✅ Avoid unnecessary delays in delivery.
5. ✅ Help in setting the **right stock levels**, **reorder points**, and **replenishment plans**.
6. ✅ Weed out **obsolete or expired items**.

Functions of Inventory Control:

1. **Determine what items are to be stocked**
2. **Determine when and how to replenish**

3. **Maintain proper stock records**
4. **Remove outdated or obsolete stock**

Advantages of Inventory Control:

1. **Uninterrupted Supply**: Maintains steady supply of materials and products.
   - *Example*: A car factory needs a regular supply of tires. Inventory control ensures the tires are always available in stock.
2. **Reduces Inventory Costs**: Minimizes overstocking, carrying costs, and losses due to spoilage or obsolescence.
   - *Example*: A clothing company avoids ordering too many winter coats that may not sell after the season.
3. **Efficient Storage**: Makes materials available at **minimum cost** and **optimal time**.
4. **Avoid Delays**: Prevents **interruptions in production** due to lack of materials.
5. **Accurate Forecasting**: Helps in predicting delivery dates and planning order schedules.
6. **Protects Inventory**: Minimizes spoilage, theft, deterioration, and wastage.
7. **Smooth Production**: Helps maintain a consistent production schedule.
8. **Improves Efficiency**: Overall productivity and organizational efficiency is increased.

Types of Inventory (with examples):

S.No.	Type of Inventory	Reason for Holding Inventory	Example
1	Raw Materials	To reap price advantage during seasonal buying	Buying bulk steel when prices are low for later use
2	Work in Progress (WIP)	To balance the production flow	Half-assembled electronics waiting for testing
3	Readymade Components	When buying is cheaper than making	Buying ready-made wheels for bicycles
4	Scrap	Disposal of waste products	Leftover metal scraps after cutting operations

S.No.	Type of Inventory	Reason for Holding Inventory	Example
5	Finished Goods	Waiting in stock before dispatch	A warehouse full of packed smartphones ready to ship

---

✅ **Example for Real-Life Understanding:**

Imagine a **bakery** that makes cakes.

- **Raw materials**: flour, eggs, sugar, etc.
- **Work-in-progress**: batter that's mixed but not yet baked.
- **Finished goods**: baked and decorated cakes ready to be sold.

If the bakery doesn't control its inventory:

- Flour might expire (loss).
- Too much sugar might occupy space and block capital.
- Without eggs, production might stop.

Inventory control helps the bakery buy the **right quantity** at the **right time** so that the business runs smoothly, costs are saved, and customer demand is always met.

A. Major Activities of Inventory Control

These are the main tasks involved in managing inventory effectively:

1. **Planning the inventories**:
    - Forecasting demand and deciding what items and how much stock is needed.
    - *Example*: A mobile phone company plans how many batteries, screens, and chips to store for the next 3 months based on expected sales.
2. **Procurement of inventories**:
    - Purchasing the required items from suppliers.
    - *Example*: Ordering 500 units of packaging boxes for upcoming orders.
3. **Receiving and inspection of inventories**:
    - Checking the received materials for quantity and quality.
    - *Example*: A quality control officer checks if 100 LCD screens delivered are not cracked or defective.
4. **Storing and issuing the inventories**:

- Placing materials in the correct storage area and providing them to departments when needed.
- *Example*: Keeping tools in the tool store and issuing them for production work.

5. **Recording the receipt and issue of inventories**:
    - Keeping stock records updated for each item received and issued.
    - *Example*: Making an entry in the inventory system whenever raw material is consumed.
6. **Physical verification of inventories**:
    - Physically counting items to match with the records (stock audit).
    - *Example*: Checking how many cartons of flour are actually present in the store.
7. **Follow-up function**:
    - Ensuring suppliers deliver materials on time and checking if any delays occur.
8. **Material standardisation and substitution**:
    - Using standardised components to reduce variety and cost, and finding substitutes if some items are unavailable.
    - *Example*: Using a common type of screw for different machines instead of different ones.

B. Steps in Inventory Control

These are logical steps followed to maintain optimum inventory:

1. **Deciding maximum-minimum limits**:
    - Set upper and lower limits for stock.
    - *Example*: Keep at least 100 but not more than 500 kg of wheat in the bakery.
2. **Determination of reorder point**:
    - The stock level at which a fresh order should be placed.
    - *Example*: If flour reaches 120 kg, place an order to refill.
3. **Determination of reorder quantity**:
    - Decide how much to reorder each time.
    - *Example*: Always reorder 300 kg of flour when reaching reorder point.

4. **Perpetual inventory control**:
    - Continuous monitoring of stock through daily updates.
    - Helps detect theft, loss, or error.
5. **ABC analysis**:
    - Classify items as:
        - **A**: high value, low quantity
        - **B**: medium value
        - **C**: low value, high quantity
    - *Example*: In a phone factory, processors (A), chargers (B), and screws (C).
6. **Method of control through turnover**:
    - Control based on how frequently items are used or sold.
    - *Example*: Fast-moving items are monitored more closely than slow-moving ones.

C. Re-ordering Level

This is the stock level at which fresh purchase orders should be made.

- **Definition**: It lies between the maximum and minimum level.
- **Purpose**: Avoids stockouts.
- *Example*: If the bakery always needs at least 100 eggs, they might reorder when stock reaches 150.

D. Economic Order Quantity (EOQ)

It is the order quantity that minimizes the total cost of inventory.

- **Formula**:

EOQ=2DAhEOQ = \sqrt{\frac{2DA}{h}}EOQ=h2DA

Where:

    - DDD = Annual demand
    - AAA = Ordering cost per order
    - hhh = Holding cost per unit per year
- **Purpose**: Helps determine how much to order at one time to reduce cost.

- *Example*: If ordering small quantities increases ordering cost, and large quantities increase holding cost, EOQ finds the best balance.

Que 3.20. **Discuss concepts regarding financial statements and limitations of financial statements.**

OR

How do you analyse and interpret financial statement of a company for reporting on the soundness of its capital structure and solvency?

OR

What do you understand by analysis of financial statement? Describe the uses of such analysis.

1. Financial Statements:

A financial statement is an organized collection of data that provides a logical and consistent view of a company's financial position. The goal is to reflect a clear understanding of various financial aspects of a business, such as income, expenses, assets, liabilities, and equity.

Key Financial Statements:

- **Income Statement:** Also referred to as the Profit and Loss Account, it shows the company's performance over a period, detailing revenues and expenses.
- **Balance Sheet:** A snapshot of the company's assets, liabilities, and equity at a specific point in time.
- **Statement of Retained Earnings:** Reflects the accumulated excess or deficit of earnings over losses and dividends.
- **Statement of Changes in Financial Position:** Focuses on the changes in the financial standing, such as working capital and cash flow.

2. Limitations of Financial Statements:

Financial statements are useful for assessing a company's financial health but come with inherent limitations:

- **Historical Data:** They reflect past performance and may not predict future outcomes.
- **Depreciation and Amortization:** These are subject to the accountant's judgment, meaning different accountants may calculate these in various ways.
- **External Factors:** They may not fully represent the company's real-time situation, like market changes.
- **Conceptual Limitations:** Certain conventions and judgments guide their preparation, and those may not always reflect the actual economic reality.

Example of Limitation:

An example of limitation can be seen in the **choice of depreciation methods.** Some accountants may use straight-line depreciation, while others may choose an accelerated method. This choice influences reported earnings.

3. Interpreting Financial Statements for Soundness:

Analyzing financial statements involves looking at various metrics to assess the company's financial health, specifically its **capital structure** and **solvency**. These analyses help determine whether the company can pay off its debts and if it has enough equity to sustain operations.

- **Capital Structure:** Refers to the mix of debt and equity financing the company uses to fund its operations.
    - **Example:** If a company has high debt compared to equity, it might be riskier because it has more financial obligations.
- **Solvency:** Refers to the company’s ability to meet its long-term debts and obligations.
    - **Example:** A company with a high debt-to-equity ratio could be considered less solvent, indicating higher financial risk.

Key ratios for evaluating capital structure and solvency:

- **Debt-to-Equity Ratio:** Measures the proportion of debt and equity used by the company.
    - **Formula:** Debt-to-Equity Ratio = Total Debt / Shareholder's Equity.
- **Current Ratio:** Measures a company's ability to pay short-term obligations with its short-term assets.
    - **Formula:** Current Ratio = Current Assets / Current Liabilities.

4. Analysis of Financial Statements:

Analyzing financial statements allows one to evaluate the performance, financial position, and changes in the business. The primary use of this analysis is for:

- **Investment Decisions:** Investors analyze financial reports to determine whether to invest in the company.
- **Creditworthiness:** Lenders examine the financial position to assess the company's ability to repay loans.
- **Management Decision Making:** Management uses these statements to improve business strategies.

Key Aspects Analyzed in Financial Statements:

- **Liquidity:** Measures the company's ability to meet short-term obligations.

    - **Example:** Current Ratio and Quick Ratio.
- **Profitability:** Measures how efficiently a company generates profit relative to its revenue, assets, or equity.
    - **Example:** Gross Profit Margin, Net Profit Margin.
- **Efficiency:** Measures how well the company utilizes its assets.
    - **Example:** Return on Assets (ROA), Return on Equity (ROE).

Uses of Financial Statement Analysis:

- **Assessing Financial Health:** Investors, managers, and creditors use financial statement analysis to understand the company's financial stability and growth prospects.
- **Strategic Planning:** Helps companies make strategic decisions like cost-cutting or capital raising.
- **Trend Analysis:** Identifies trends over time in profitability, liquidity, and solvency to forecast future performance.

Conclusion:

The analysis and interpretation of financial statements are critical for assessing a company's financial health and making informed business decisions. However, it's important to consider the limitations of financial statements, such as the use of judgment and historical nature, when interpreting the data.

This understanding ensures that any financial decision, whether it's for investment or management purposes, is made with a comprehensive view of the company's current and potential financial situation.

Features of Various Financial Reports (from the image you provided):

Financial reports are essential tools used in project appraisal. They provide a structured assessment of various financial aspects to ensure the smooth and efficient implementation of a project. Below are the **main features** listed in Fig. 3.21, explained in detail with examples:

---

1. Financial Soundness

This refers to evaluating whether the project has a solid financial foundation. It ensures that the entity has sufficient funds or capital to begin and sustain the project.

Example: Suppose an entrepreneur wants to start a manufacturing unit. Financial soundness will involve checking if the entrepreneur has enough capital or can secure loans to buy machines, hire labor, and manage initial operations.

---

2. Efficient Operation

This feature assesses whether the project operations will be smooth, cost-effective, and productive. It focuses on utilizing resources wisely.

Example: If a delivery company uses fuel-efficient vehicles and optimized routes, it ensures that operations are efficient and save costs in the long term.

---

3. Cost of Production

It analyzes all the expenses involved in producing goods or services — including raw materials, labor, power, etc.

Example: For a bakery, the cost of production includes the price of flour, sugar, electricity, oven maintenance, and wages to bakers.

---

4. Return on Investment (ROI)

This measures how much profit the investor will earn in return for the money invested in the project.

Example: If an investor puts ₹1,00,000 into a textile business and earns ₹1,20,000 after a year, the return on investment is 20%.

---

5. Prospects of Marketing

This refers to the market demand and ability to sell the product or service. A good marketing prospect means the product is likely to succeed in the market.

Example: Before launching an organic juice product, a report on growing health awareness among youth shows positive marketing prospects.

---

6. Profitability

It checks whether the project will generate enough revenue to cover costs and earn profits.

Example: If a mobile app costs ₹50,000 to develop and earns ₹2,00,000 from subscriptions and ads, it's a highly profitable project.

---

7. Effective Control

This feature ensures that all expenses are monitored and managed properly, preventing misuse of resources.

Example: A retail store uses software to track daily expenses and compare them with the budget, which helps in effective control.

---

8. Budgeting

It involves estimating the expected income and expenses before the project starts. It helps in planning and avoiding overspending.

Example: Before starting a catering service, the owner prepares a monthly budget that includes food supplies, staff salaries, and transportation costs.

---

9. Pricing

Pricing determines how much the product or service should be sold for. It must be competitive and cover costs while still generating profit.

Example: A handmade soap company calculates the total cost per bar and adds a margin to set a competitive selling price.

These features help entrepreneurs and project managers make informed financial decisions, ensuring the project is both viable and sustainable.

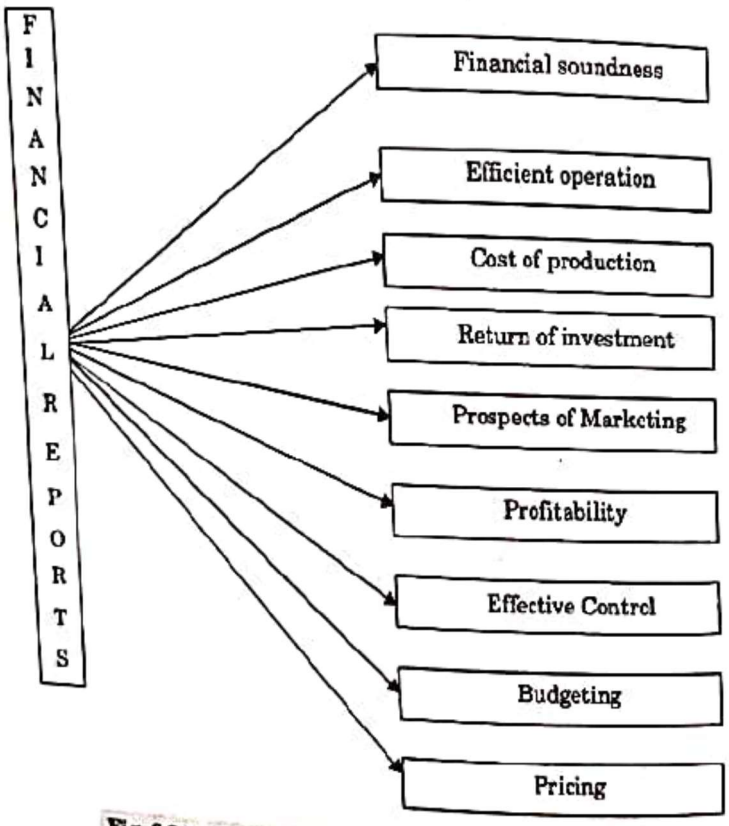
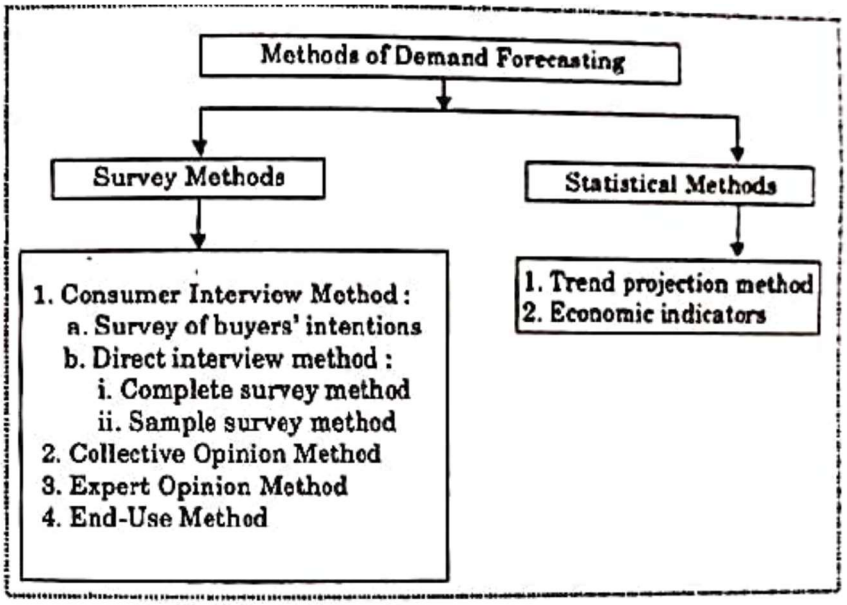


Fig. 3.21.1. Features of various financial reports.

Que 3.24. **Discuss various methods of demand forecasting.**

UPTU 2011-12, Marks 10



Discuss various methods of demand forecasting (Fig. 3.24) – Detailed Explanation with Examples

Demand forecasting is the process of estimating future demand for a product or service. It helps businesses plan production, inventory, marketing, and financial activities. Let's discuss the methods in detail, as shown in your textbook:

Two Main Methods of Demand Forecasting:

1. **Survey Methods**
2. **Statistical Methods**

A. Survey Methods

These methods rely on **direct interaction** with consumers or experts to collect data about future demand.

1. Consumer Interview Method

This method collects purchase intentions from consumers.

a. Survey of Buyers' Intentions

- A direct survey where buyers are asked about their future purchase plans.
- **Example**: A car company surveys potential customers about whether they plan to buy a car in the next 6 months.

b. Direct Interview Method

- The company's sales team interviews individuals to estimate demand.
- **Example**: An electronics company asks customers directly how many mobile phones they might purchase next year.

Subtypes of Direct Interview:

- **i. Complete Survey Method**: Survey every potential consumer (used when the market is small).
- **ii. Sample Survey Method**: Survey a sample group and generalize the results to the entire market.

---

2. Collective Opinion Method *(also called Opinion Survey Method)*

- Salespersons, marketing professionals, and experts provide their expectations.

- **Example**: A company consults its sales representatives across different regions to estimate future product demand.

---

3. Delphi Method / Expert Opinion Method

- Expert panel is selected; their opinions are taken in rounds and refined until a consensus is reached.
- **Example**: A pharmaceutical company asks a panel of doctors and market analysts to estimate future demand for a new medicine.

---

4. End-Use or Input-Output Method

- Demand is estimated based on how much of the product is required in other industries.
- **Example**: The demand for steel is estimated by assessing how much steel will be needed by construction, automobile, and manufacturing sectors.

B. Statistical Methods

These use **mathematical and statistical tools** to forecast demand.

1. Trend Projection Method

- Uses past sales data (time series) to predict future demand.
- **Example**: A garment company uses 5 years of monthly sales data to predict next year's sales using a line graph or trend line.

Key Points:

- Based on **chronological data**.
- Helps estimate **long-term** demand.

---

2. Economic Indicators Method

- Uses changes in economic variables to estimate future demand.
- **Example**: If GDP is rising and consumer income is increasing, demand for luxury goods is expected to rise.

Key Indicators Used:

- GDP growth
- Consumer price index

- Employment rates
- Income levels

Conclusion

- **Survey Methods** are best for short-term and new product demand forecasting.
- **Statistical Methods** are suitable for long-term demand forecasting using past data and trends.

Example Comparison:

Scenario	Best Method
New startup launching a product	Survey of Buyers' Intentions
Established firm predicting next year's sales	Trend Projection Method
Estimating demand for steel used in auto industry	End-Use Method
Consulting market analysts for product launch	Delphi Method

Trading and profit-loss account:

1. Trading Account

➤ **Meaning:**

The Trading Account is the **first part of the final accounts** and is prepared to find out the **gross profit or gross loss** from buying and selling of goods.

➤ **Purpose:**

To determine the **profitability of core operations** like purchase and sale of goods.

➤ **Format of Trading Account:**

Dr. (Debit Side)	Cr. (Credit Side)
To Opening Stock	By Sales
To Purchases (less Returns)	Less: Sales Returns
To Direct Expenses (like Wages, Freight)	By Closing Stock

Dr. (Debit Side)	Cr. (Credit Side)
To Direct Expenses (like Carriage Inward)	
To Gross Profit c/d (if credit side > debit side)	
To Gross Loss (if debit side > credit side)	

➤ **Example:**

Let's say a trader has the following data:

- Opening Stock = ₹20,000
- Purchases = ₹80,000
- Sales = ₹1,20,000
- Wages = ₹5,000
- Carriage Inward = ₹3,000
- Closing Stock = ₹30,000

Trading Account:

Dr.	₹	Cr.	₹
To Opening Stock	20,000	By Sales	1,20,000
To Purchases	80,000	By Closing Stock	30,000
To Wages	5,000		
To Carriage Inward	3,000		
To Gross Profit c/d (balancing)	42,000		
Total	1,50,000	**Total**	1,50,000

✅ **Gross Profit = ₹42,000**

---

2. Profit and Loss Account

➤ **Meaning:**

The Profit and Loss (P&L) Account is the **second part of the final accounts**. It is prepared to find out the **net profit or net loss** after all indirect expenses and incomes are recorded.

➤ **Purpose:**

To show the **true profitability** of the business by including **all indirect expenses and incomes**.

➤ **Format of Profit and Loss Account:**

Dr. (Debit Side)	**Cr. (Credit Side)**
To Salaries	By Gross Profit b/d
To Rent	By Discount Received
To Commission	By Interest Received
To Bad Debts	By Misc. Income
To Advertisement	
To Depreciation	
To Net Profit (transferred to Capital A/c)	

➤ **Example:**

Let's continue from the previous example where Gross Profit = ₹42,000 and assume the following:

- Salaries = ₹10,000
- Rent = ₹5,000
- Advertisement = ₹4,000
- Discount Received = ₹1,000

Profit and Loss Account:

Dr.	**₹**	**Cr.**	**₹**
To Salaries	10,000	By Gross Profit b/d	42,000
To Rent	5,000	By Discount Received	1,000
To Advertisement	4,000		
To Net Profit transferred to Capital A/c	24,000		

Dr.	₹	Cr.	₹
Total	43,000	**Total**	43,000

✅ **Net Profit = ₹24,000**

Key Differences Between Trading Account and Profit & Loss Account

S.No.	Trading Account	Profit and Loss Account
1.	First part of final accounts	Second part of final accounts
2.	Shows **Gross Profit or Gross Loss**	Shows **Net Profit or Net Loss**
3.	Includes **direct expenses** only	Includes **indirect expenses and indirect incomes**
4.	Prepared to check **trading efficiency**	Prepared to check **overall business profitability**
5.	Gross Profit is transferred to Profit & Loss A/c	Net Profit is transferred to Capital Account