Managerial Economics & Financial Accountancy

Syllabus :-

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Unit - I

Economics :

Meaning : The term Economics comes from the Greek word oikos (house) and nomos (custom / law) Management.

- It is the study of human activity
- It is the branch of knowledge concerned with the production, consumption and transfer of wealth.
- It is the study of how scarce resources are allocated to fulfill the infinite wants of consumers.

Definitions of Economics

1st Definition : Adam Smith - Father of Economics given "Wealth Definition".

"An equiry into the nature and causes of the wealth of nations"

2nd Definition : Prof. Alfred Marshall - given "Welfare Definition

"Economics is a study of mankind in the ordinary business of life"

3rd Definition – Robbins given "Scarcity Definition"

"Economics is the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses."

Classification of Economics:

Economics
- Micro Economics
- Macro Economics

Micro Economics: The study of an individual consumer or a firm is called micro economics.
- Micro means 'one millionth' – It deals with behaviour and problems of single individual and micro organisations
- It is the study of smaller economic units

Macro Economics: It deals with performance, structure, behaviour and decision making of an economy as a whole. This includes regional, national and global economies.

Micro Vs Macro Economics

Basis for Comparison	Micro Economics	Macro Economics.
Meaning	The branch of economics that studies the behaviour of an individual or firm	The branch of economics that studies the behaviour of the whole economy
Deals with	Individual economic variables such as - Demand analysis, pricing, production cost etc.	Aggregrate economic variables such as GDP, National income, Inflation, Deflation etc.
Business Applications	Applied to operational or internal issues	Environment and external issues.
Scope	Covers various issues like demand, supply, product pricing, production etc.	Covers issues like national income, general price level, distribution etc
Importance	Helps in determining prices of a product along with the prices of factors of production.	Maintains stability in the general price level, resolves the problems of inflation, unemployment, poverty etc.
Limitations	It is based on unrealistic assumptions i.e assumes full employment in the society which is not possible	What is true for aggregate may not be true for individuals as it studies the economy as a whole.

Managerial Economics :-

Meaning :- If economic principles, theories and concepts are used for finding solutions to managerial situations it is regarded as Managerial Economics.

Definition of Managerial Economics :

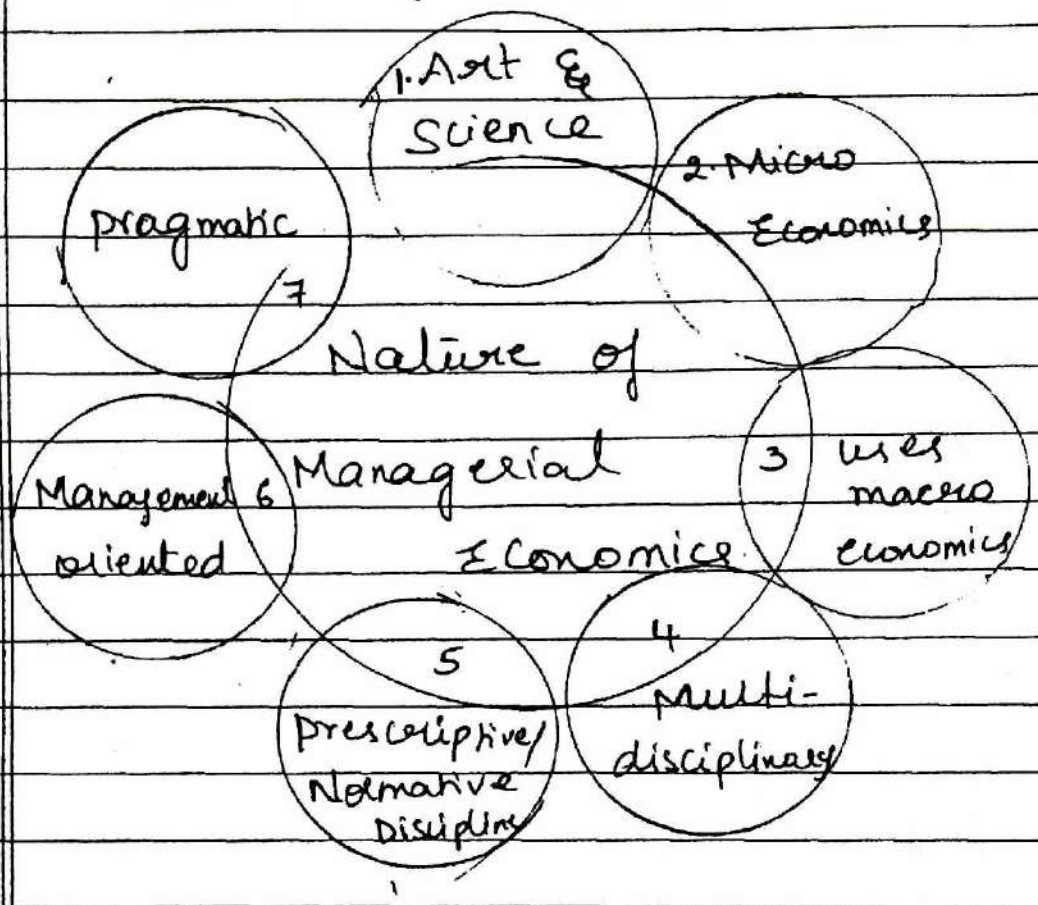
Spencer & Siegelman defined managerial economics as
"the integration of economic theory with business practice for the purpose of facilitating decision-making and forward planning by management".

Douglas :- defined "Managerial Economics is the application of economic principles and methodologies to the decision-making process within the firm or organisation".

Nature of Managerial Economics :-

1. It is an art as well as science :- As ME requires a lot of logical thinking and creative skills for decision-making it is considered to be an art and as it uses economic principles, technique it is considered as science.

Nature of Managerial Economics



2. Micro Economics :- In managerial economics, managers generally deal with the problems related to a particular organisation. ∴ it is considered to be a part of micro economics.

3. uses Macro Economics :- the managers has to analyse different factors of macro economics such as market conditions, economic reforms, government policies etc as they will impact the organisation.

4. Multi-disciplinary : Managerial Economics uses many tools and principles belonging to various disciplines such as accounting, finance, statistics, mathematics operations research, human resource, marketing etc.

5. Prescriptive / Normative Discipline : As it aims in achievement of goal and deals with practical situations or problems by implementing corrective measures it is prescriptive in nature.
It is Normative because it involves in judgements i.e what should be done and what should not be done.

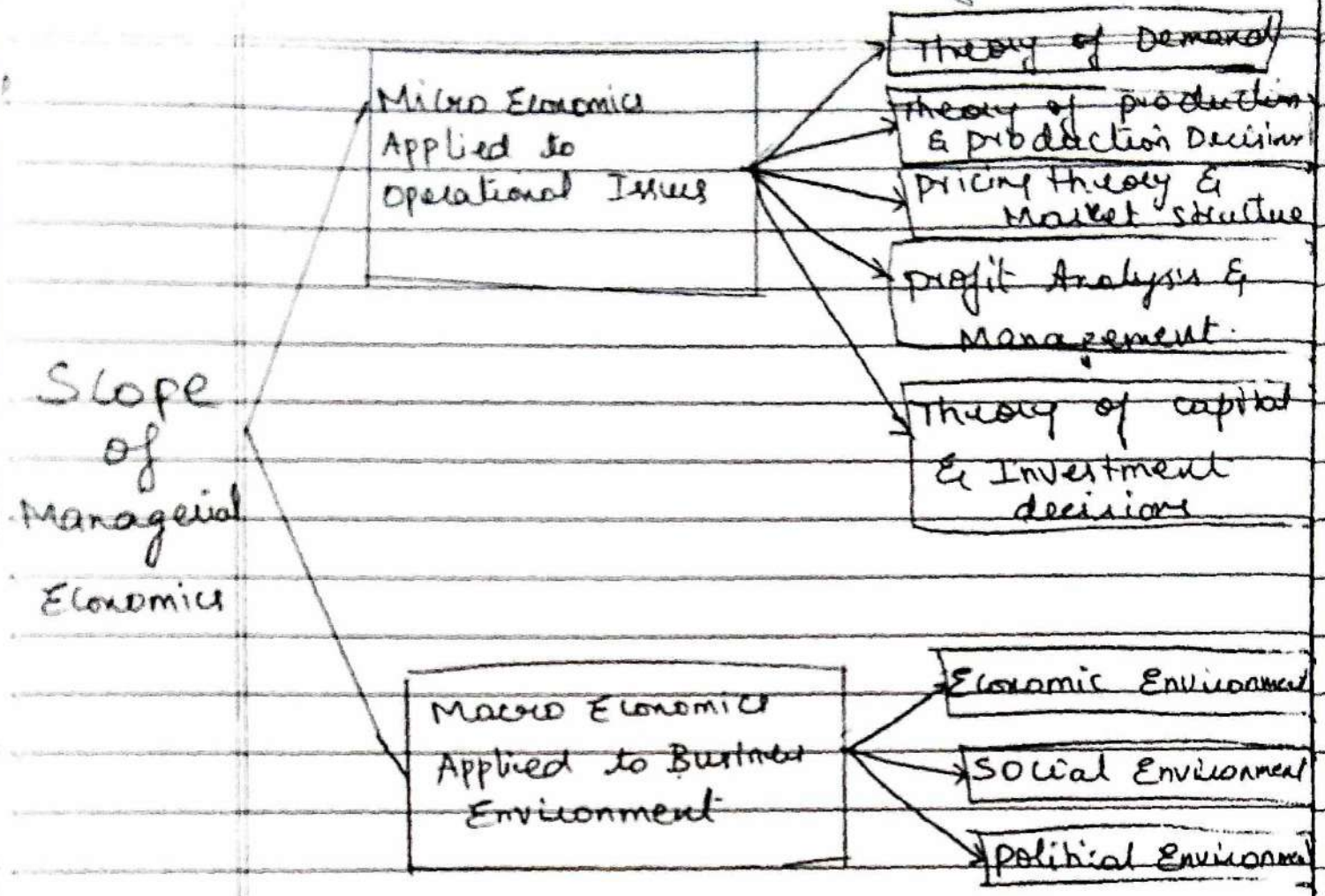
6. Management-oriented : It acts as a tool for managers to deal with problems and helps in policy formulation and decision making.

7. Pragmatic : It is a practical and logical approach towards the day-day business problems.

Scope of Managerial Economics :

I Micro-Economics Applied to Operational Issues :

a) Theory of Demand : It emphasises on the consumers behaviour towards a product or service.



b) Theory of production & production decisions: It is concerned with volume of production, process, capital, labour required, cost involved etc. It aims at maximising the output to meet the customers ~~need~~ demand.

c) pricing theory & Analysis of Market Structure: It focuses on price determination of a product keeping in mind the competitors, market conditions, cost of production, maximising sales etc.

d) profit Analysis and Management : It aims on maximising profit and checks market conditions, cost of input, competition etc

e) Theory of capital and Investment Decision : Capital is the most critical factor of business and checks proper allocation of capital in profitable projects to improve efficiency of a firm.

II Macro-Economics Applied to Business Environment

a) Economic Environment :- The economic conditions of a country, GDP, economic policies etc indirectly impacts the business and its operations.

b) Social Environment :- The society in which the organisation functions also affects like employment conditions, trade unions, consumer cooperatives etc.

c) Political Environment :- The political structure of a country, political stability, attitude towards private sector influence organisations growth and development.

Demand :-

Meaning :- It is defined as a want/need which is backed by willingness and ability to buy a particular product.

- A product / service is said to have demand when 3 conditions are satisfied

1. Desire to acquire it
2. Willingness to pay for it. DWA
3. Ability to pay for it

Determinants of Demand :

1. price of the product :- The price of a a product is inversely proportional to the quantity demanded i.e if price raises quantity demanded decreases and vice versa.

2. Income of consumers :- As income of consumers determines the purchasing power. It implies that rise in the consumers income results in rise in the demand for a product

3. price of related goods :- The demand for a good depends on the price of related goods. Related goods may be a substitute or a complementary good. Substitute goods can

be used interchangeably as they serve the same purpose Eg:- tea & Coffee, Cooldrink & juice. Complementary goods are used jointly Eg: car & petrol.

4. Consumer Tastes & preferences :- The demand for a product changes with the changes in the tastes and preferences of consumers such as customs, traditions, life style, habits etc

5. consumers Expectations :- Demand also depends on the consumer's expectations regarding the future price of a commodity, availability of the commodity etc. such expectations cause rise in demand for a product.

6. Size of the population :- An increase in the size of a population increases the demand for commodities as the number of consumers would increase.

7. Consumer Credit facility :- It refers to terms and conditions for supplying various commodities on credit. Favourable credit policies generally result in the purchase of commodities that consumers may not have purchased otherwise

8. Advertising efforts :- As advertisments create awareness and arouse the need to buy the

product. more investment on advertisements may lead to increase in the demand.

9. Distribution of National Income :- Higher the national income, the higher the demand for all the normal goods.

10. Any other factor affecting demand :- Other factors like government policy, climatic conditions, natural calamities, market factors etc also influence the demand for the product.

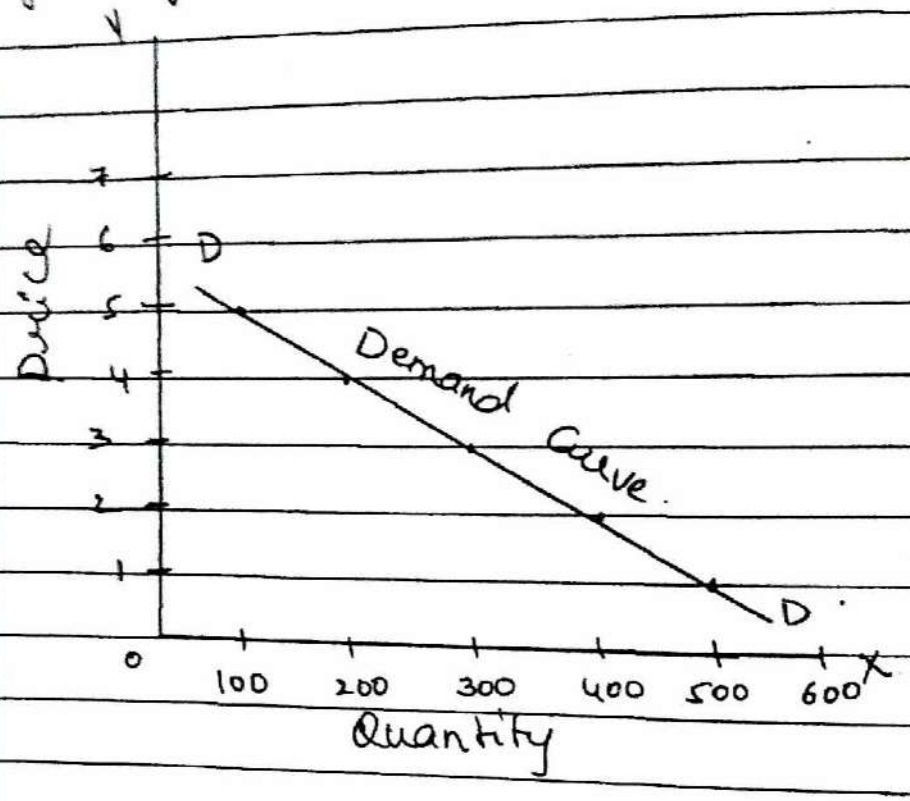
Demand schedule :

It is a table that shows the relationship between the price of the good and the quantity demanded.

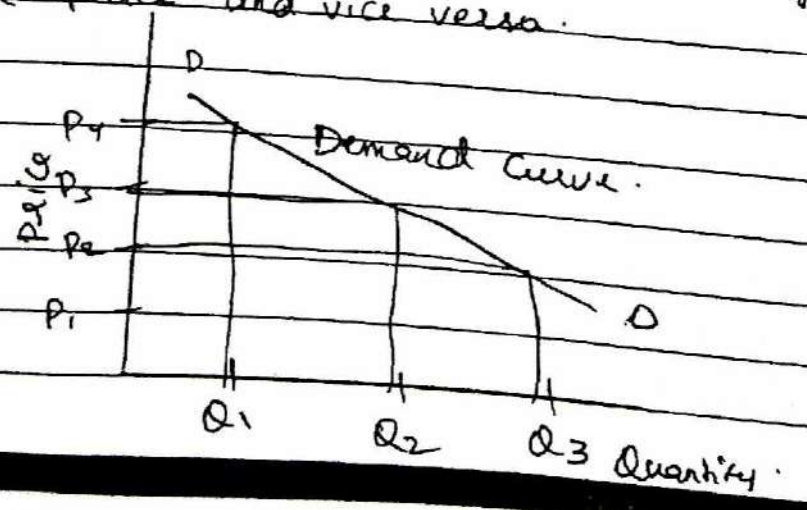
Demand schedule

Price	Quantity
5	100
4	200
3	300
2	400
1	500

Demand Curve: It is a graph of the relationship between the price of a good and the quantity demanded



Law of Demand: It states that demand for a product is inversely proportional to its price.
- other things remaining the same, the amount of quantity demanded rises with every fall in the price and vice versa.



Exceptions to the Law of Demand :-

1. Necessity goods : The products which are considered as essentials is an exception to the law of demand as the price change will not decrease or increase the demand for essential products. Eg :- Medicines.

2. Giffen paradox : Robert Giffen presented Giffen Paradox and he divided the goods into two groups, the superior goods and inferior goods. The Superior goods are commonly referred as Giffen goods. Inferior goods demand decreases with increase in consumer income.

3. prestigious goods : The products which are considered status icons such as diamond, gold etc demand for these goods remains the same when price increases or decreases.

4. Fear of shortage :- If people think that goods are shortage and will not be available in future then they try to buy the products eventhough the price is increasing.

Elasticity of Demand :

It is defined as the rate of responsiveness in the demand of a commodity for a given change in price or any other determinants of demand.

Types of Elasticity of Demand

1. Price Elasticity.
2. Income Elasticity.
3. Cross Elasticity.
4. Advertising Elasticity.

I. Price Elasticity of Demand :

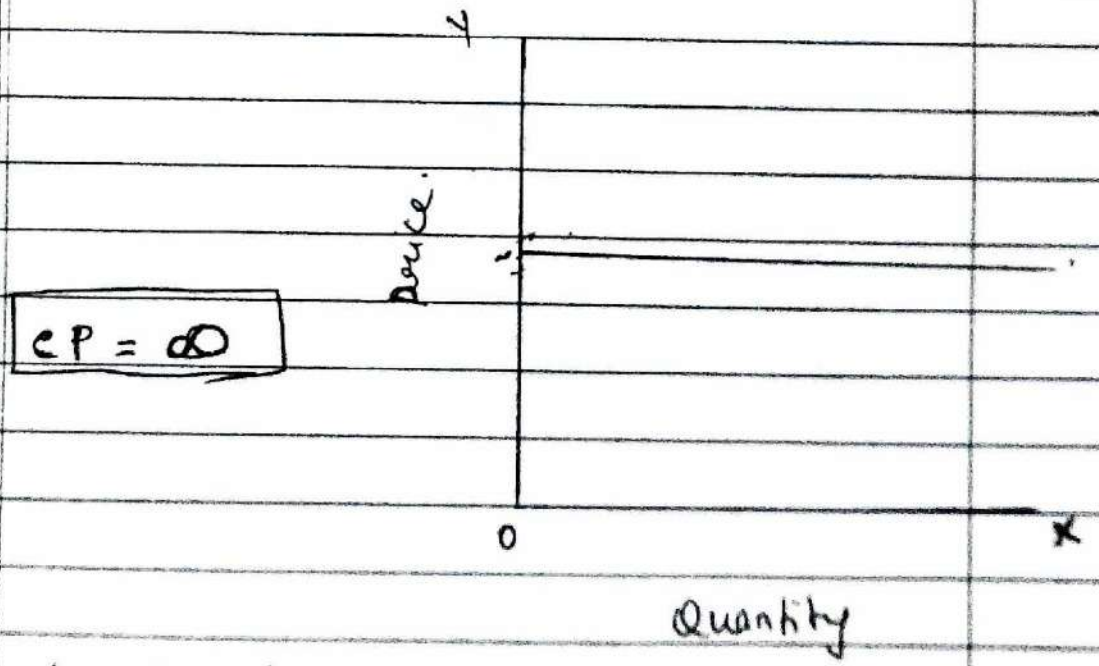
It is generally referred to as elasticity of demand. It is the change in quantity demanded on account of change in price.

$$e_p = \frac{\% \text{ change in quantity demanded}}{\% \text{ change in price}}$$

Degrees of price elasticity of demand

1. perfectly elastic demand
2. perfectly Inelastic demand
3. unit elastic demand
4. Relatively elastic demand
5. Relatively Inelastic demand.

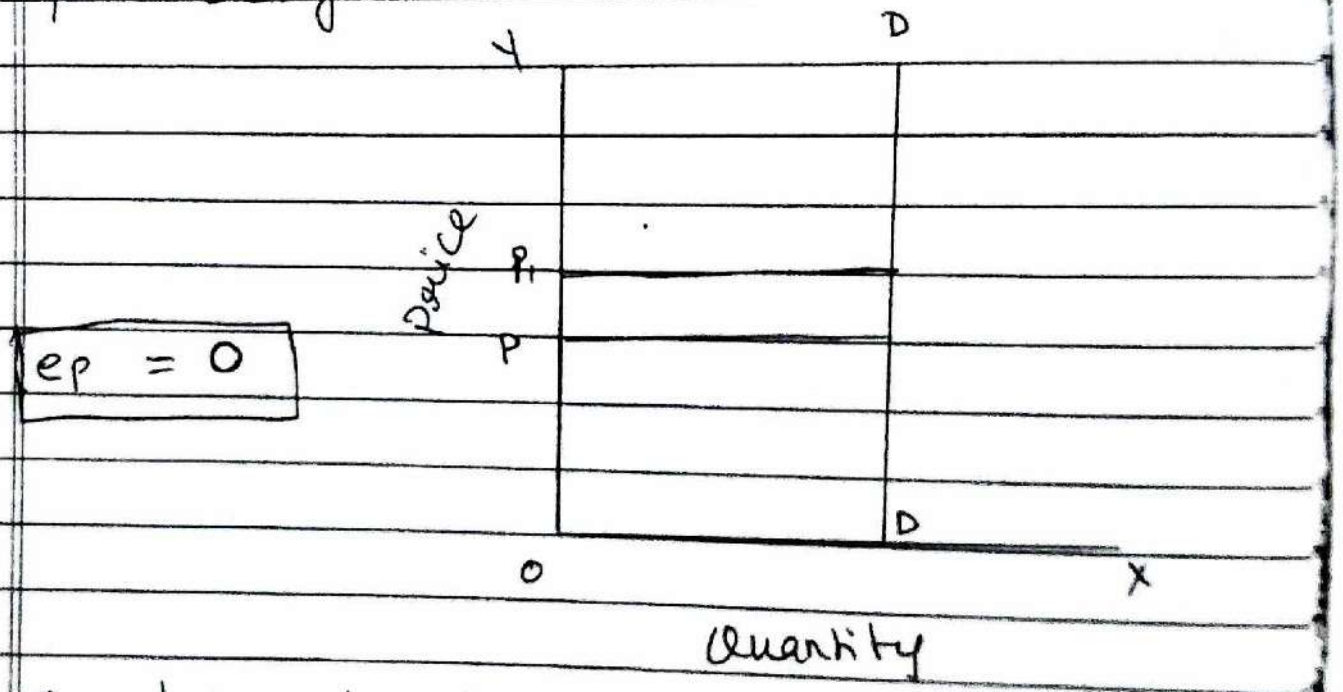
1. **Perfectly Elastic demand** :- If a small fall in price leads to unlimited increase in the demand it is said to be perfectly elastic.



The demand curve is represented by a straight horizontal line and shows that the demand for a product is directly tied to the price.
- Even a small change in price causes an infinite change in the quantity demanded

eg:- If a price of a product is Rs 20 and quantity sold is 100 unite. The price of the product is reduced from Rs 20 to Rs 15 then quantity sold is 1,00,000 above.

2. Perfectly Inelastic Demand :- If price falls or rises there is no change in demand. Demand is non-responsive to price changes.

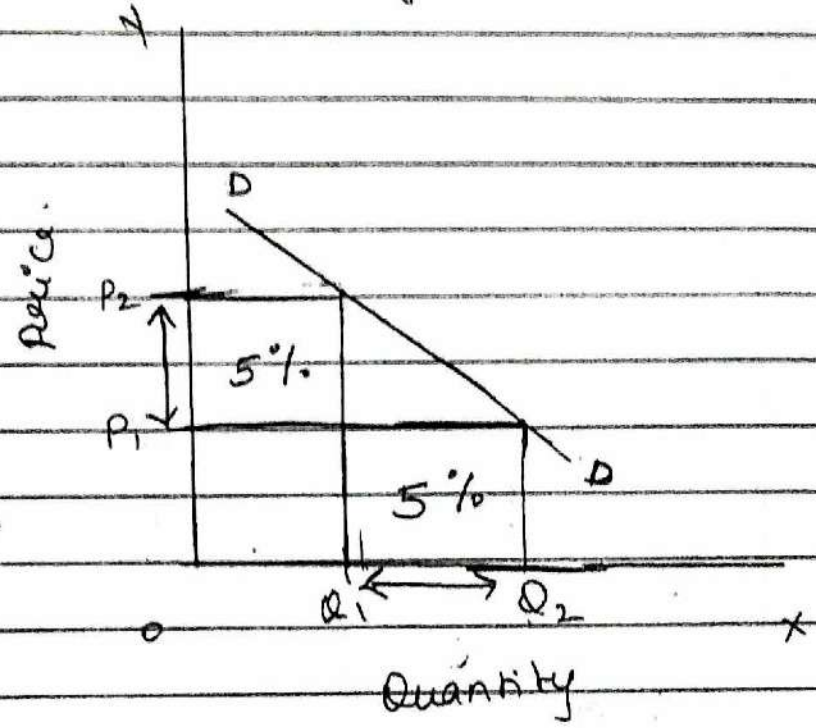


$e_p = 0$

Example: If price of salt has increased from Rs 10 to Rs 12 there will be no change in quantity demanded.

3. <u>Unit Elastic Demand</u> : when a change in price brings about an equal and proportionate change in demand, the demand has unit elasticity.

$\boxed{e_p = 1}$



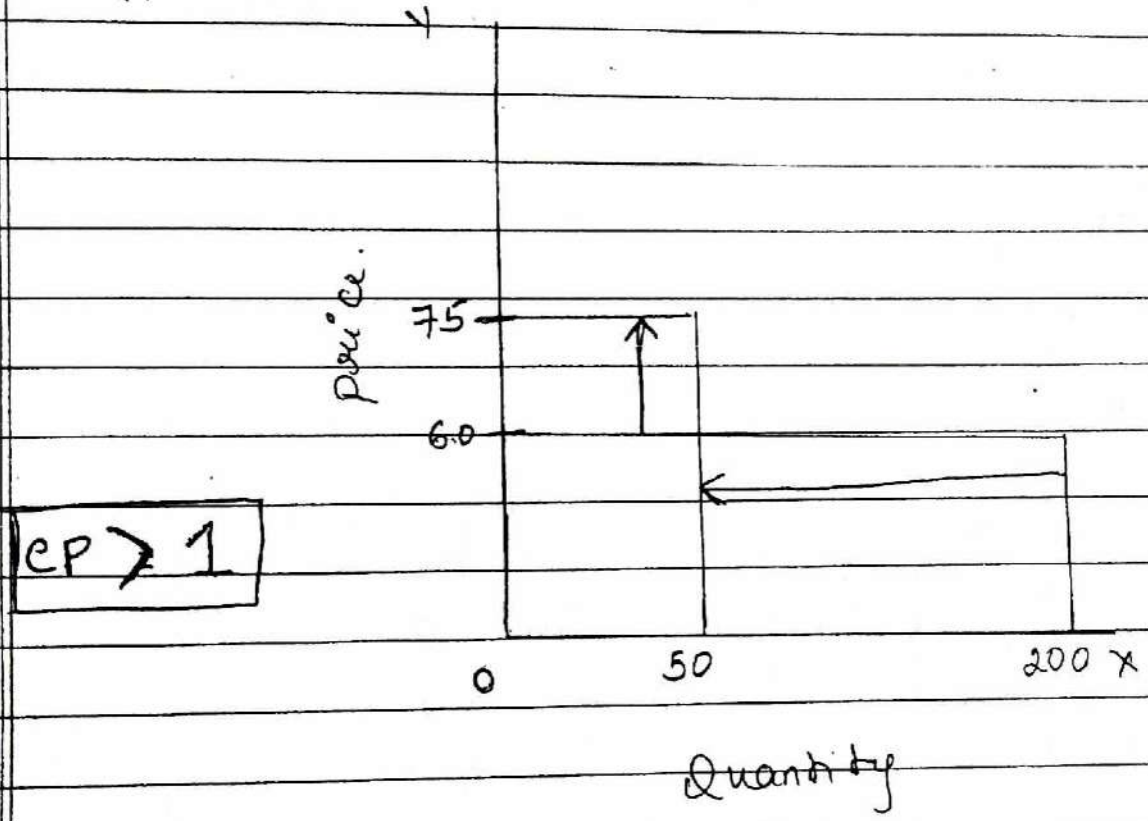
% change in quantity = % change in price.

- The demand curve has the shape of rectangular hyperbola.

Eg:- As the price falls from Re 3 to Re 1 the quantity demanded is increased from 1 unit to 3 units.

4. Relatively Elastic Demand : A small change in price causes a more than proportionate change in quantity demanded

- The change in demand is more than the change in the price.



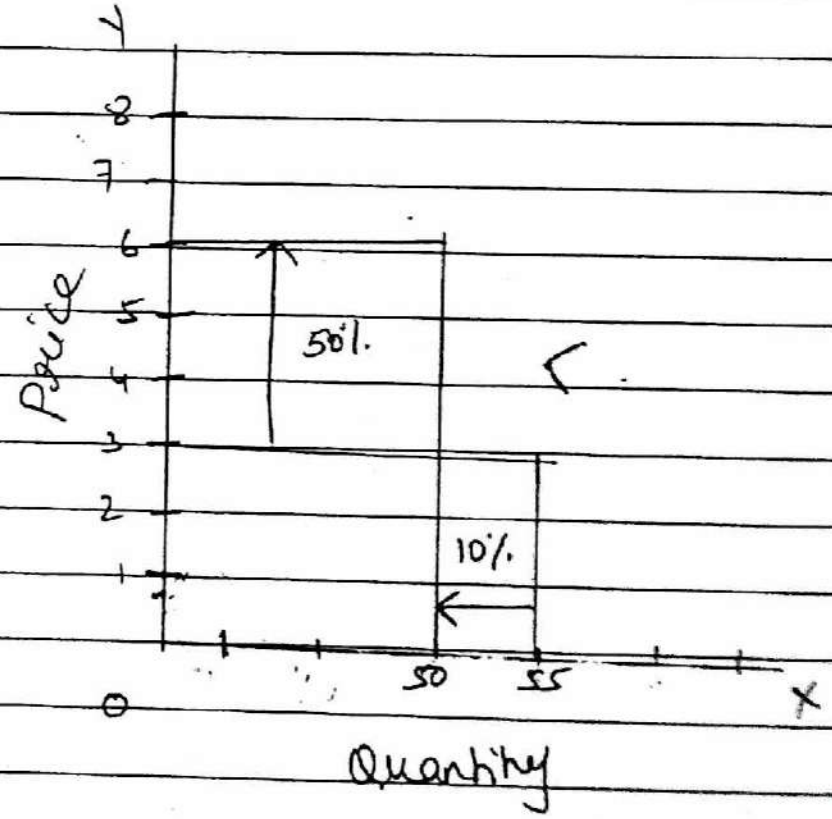
eg:- The price of a product is 60 then the quantity demanded is 200 units, the price has increased from Rs 60 to Rs 75 the quantity demanded reduced from 200 units to 50 units.

5. Relatively Inelastic demand :-

when a change in the price of a commodity produces less than proportionate change in the quantity demanded.

- i.e the change in demand is less than the change in price.

$\boxed{ep < 1}$



Eg:- the price of a product is increased from Rs 3 to Rs 6 then the quantity demanded is reduced from 55 to 50 units.

Factors determining price Elasticity of Demand:

1. Nature of product: The products are classified into necessities, comforts and luxuries.
   Necessities – food, ~~petrol~~, salt Sugar – Inelastic
   Comforts – T.V. refrigerator } Relatively Inelastic
   Luxury – A.C, car

2. Availiability of Substitutes: If a commodity has close substitutes the demand is said to be elastic and vice-versa.

3. Items of Addiction: They are said to be relatively price inelastic Eg: Cigarettes.

4. Urgency of demand: The products which are mostly urgent such as medicines, injections etc tend to have Inelastic demand.

5. Income level of consumers: Demand is inelastic for people with high income as they are not affected by price changes. Low income group people the demand is elastic.

6. Proportion of Income spent on a commodity:- If a consumer spends a small part of his income on a commodity, the price change has no effect on his demand.
Eg:- Match box (₹0.50 - 1.00)
i.e the demand is inelastic and vice versa.

7. Durability of commodity :- perishable commodities like eatables are relatively inelastic in comparision to durable items like car, t.v etc.

8. Extent of use :- If the product is used for multiple uses the demand is said to be relatively elastic Eg: Electricity.

9. Time frame :- As the consumer find it difficult to change their habits in the short period - demand is inelastic.
- for long run the demand is more elastic.

10. Expectations of prices :- when people expect a fall in the price the demand for the product is likely to be elastic.

II Income Elasticity of Demand

If the change in demand is due to the change in the Income of a buyer it is Income Elasticity of demand.

It can be stated as

$$e_i = \frac{\% \text{ change in quantity demanded}}{\% \text{ change in income}}$$

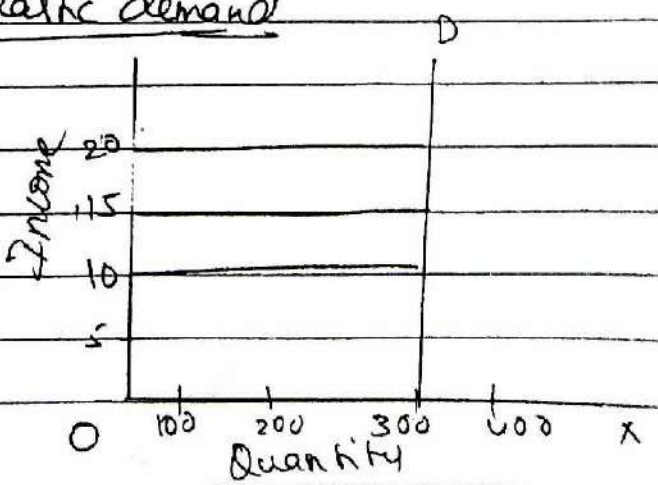
Types of Income Elasticity of Demand

1. perfectly income inelastic demand.
2. ~~perfectly~~ Relatively income inelastic demand.
3. unitary income elastic demand
4. Relatively income elastic demand
5. Negative income elastic demand.

1. perfectly Income elastic demand

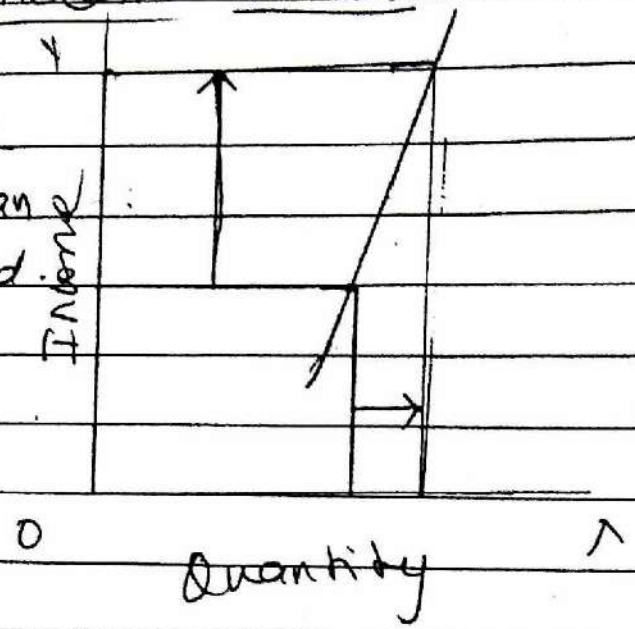
change in income doesn't change the demand

eg:- salt.



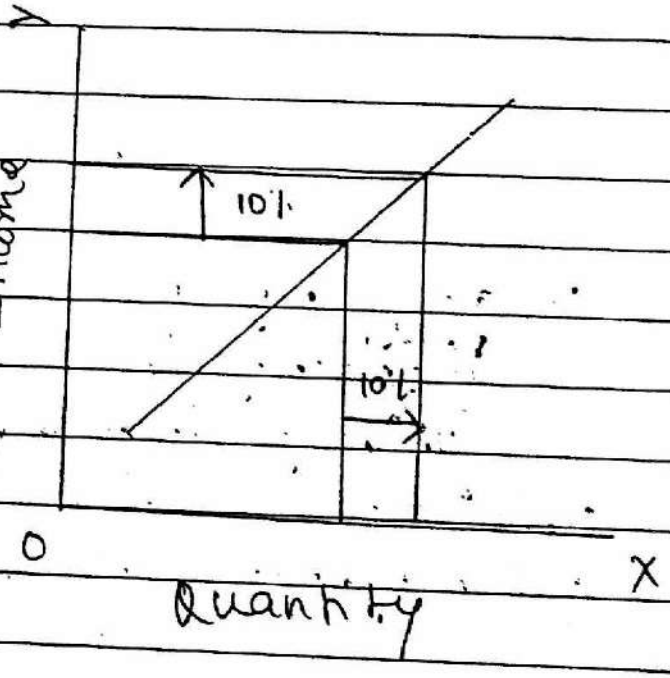
2. Relatively income inelastic demand :

Proportionate change in income is more than the quantity demanded.



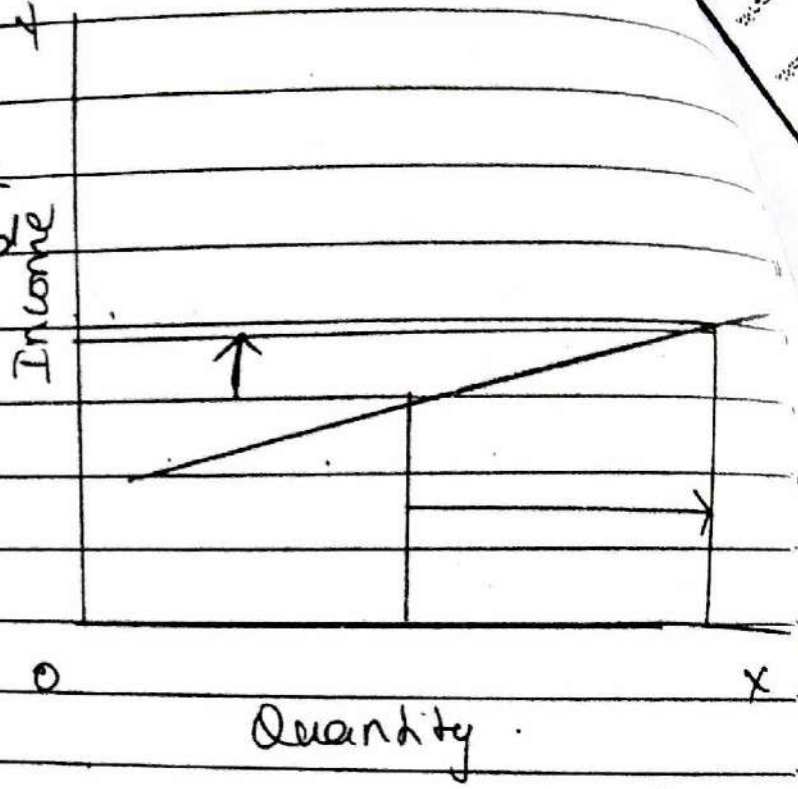
3. Unitary income elastic demand

The change in quantity demanded is exactly the same as the change in income.



4. Relatively Income elastic demand :

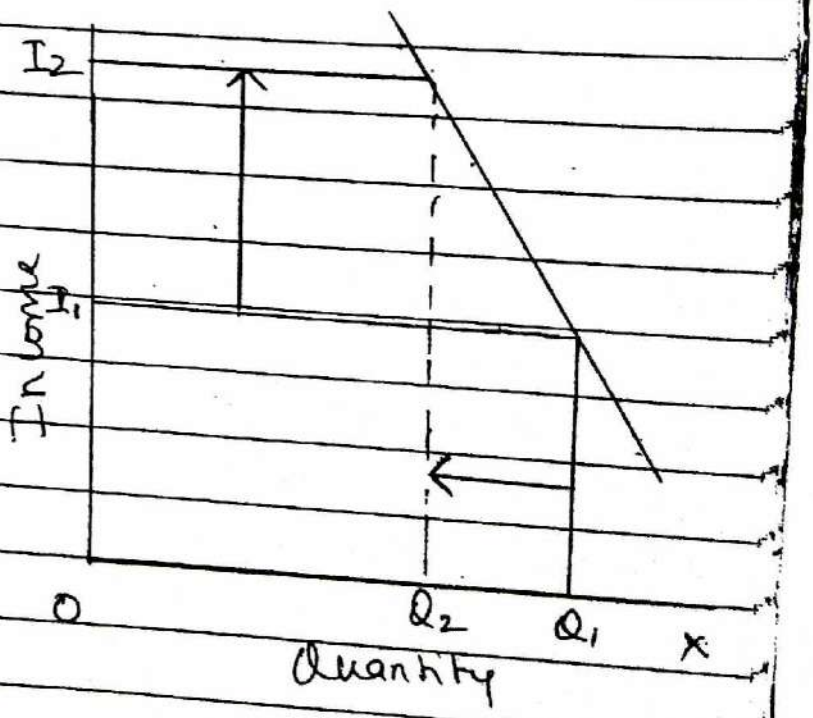
Proportionate change in quantity demanded is greater than the change in income.



5. Negative Income elastic demand :

An increase in the income of a consumer causes a decrease in the demand

ex:- Normal shoes vs Branded shoes
Bus vs car.



III Cross Elasticity of Demand

It refers to the quantity demanded in response to a change in the price of a related good, which may be a substitute or complementary good.

It can be stated as

$$e_c = \frac{\text{\% change in quantity demanded for product 'X'}}{\text{\% change in price of product 'Y'}}$$

Types of Cross Elasticity of Demand

1. Positive cross elasticity :- Substitute goods have +ve cross elasticity because the increase in the price of one product increases the demand for other product
Ex:- Coffee & Tea.

2. Negative cross elasticity :- Complementary goods have -ve cross elasticity because increase in the price of one type of good decreases the demand for its complementary goods.
Ex :- petrol & car.

IV Advertising Elasticity of Demand

It refers to increase in sales because of change in the advertising expenditure as there is a direct relationship between amount of money spent on advertising and its impact on sales.

It can be stated as.

$$e_a = \frac{\% \text{ Change in Sales}}{\% \text{ change in advertising expenditure}}$$

- It is always positive.

Demand Forecasting

Meaning :- A forecast is a guess or anticipation or a prediction about any event which is likely to happen in the future.

- Demand forecasting means predicting or estimating the future demand for a firm's product(s).
- It is the backbone of any business and an important aid in planning.

Importance of Demand Forecasting :-

1. Effective planning :- It provides scientific and reliable basis for anticipating future operations

2. Reduction of uncertainty :- It aims at reducing the area of uncertainty for managerial decisions with respect to cost, production, sales, profit etc

3. Investment Decision :- They are made keeping in mind the return on investment by keeping in mind the market demand

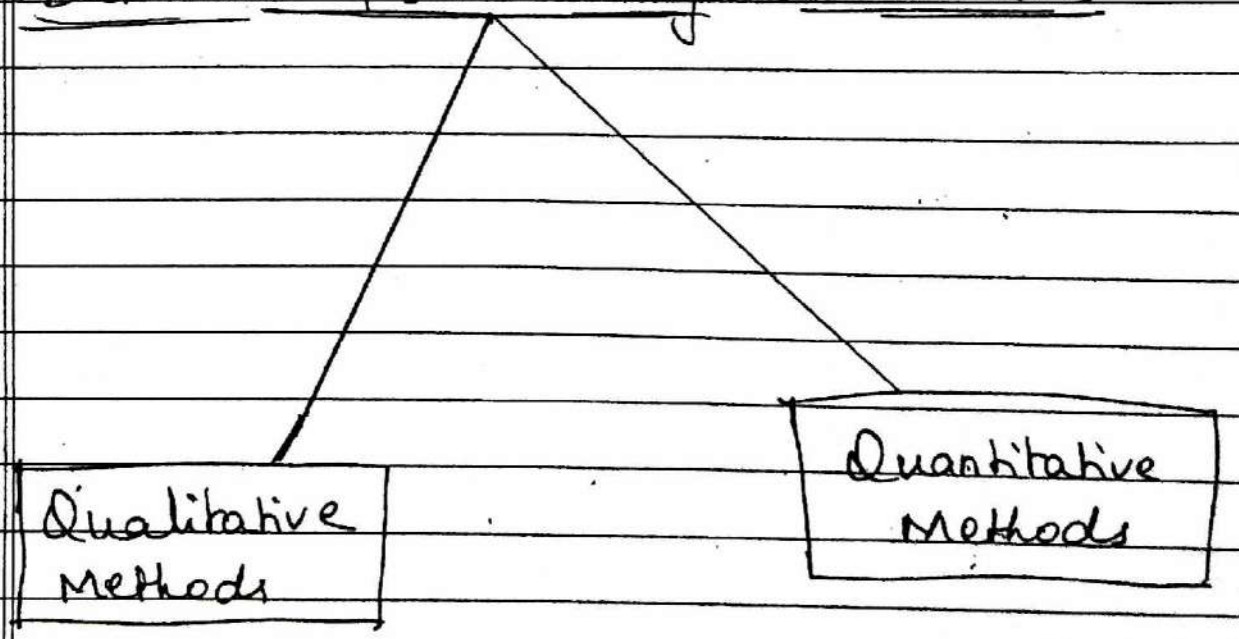
4. Resource allocation :- when future estimates are available efficient allocation of resources can be done. efficiently.

5. pricing Decisions :- In order to pursue optimal pricing strategies firm need to have complete information about the future demand.

6. Competitive Strategy :- The level of demand for a product will influence the decisions related to how to beat competition, attracting customers, employee recruitments etc.

7. Managerial control :- forecasting disclose the areas where control is lacking

Demand Forecasting Methods



Qualitative Techniques :- They mainly employ human judgement to predict future events.

This method involves the techniques like

1. Expert opinion method
2. Survey methods :
   a. Complete enumeration survey
   b. Sample Survey
   c. Sales force opinion
   d. End use survey.

1. Expert opinion Method :- In this method the demand of a product is forecasted by taking the views of experts. The experts are the persons with rich experience in that particular field and are well aware about the market conditions.
- If the forecast is based on the several opinion of several experts, then it is known as panel consensus.
- A specialized form of panel opinion is called as Delphi Method.
- The responses of experts are analyzed by an independent body.

2. Survey Methods

a) Complete Enumeration Survey :- The aim of this method is to contact all the consumers in the market through a door-door survey

- It is difficult to follow this method as it requires more time, manpower and huge amount.
- Some of the consumers may also misguide the investigators by not expressing their opinions clearly
- The advantage is it can collect ~~obtain~~ a lot of information directly from the customers.

b) <u>Sample Survey Method</u> :- only a few consumers are selected and their views on the probable demand is collected.
- It is a miniature form of Complete Enumeration Survey.
- The sample is considered to be a true representation of the entire population.
- The selection of sample may not be proper when ineffective consumers are selected for survey.

c) <u>Sales force opinion Method</u> : In this method sales persons are expected to estimate expected sales in their respective territories.
- It is with an assumption that sales people are the right persons for giving information about the likes, dislikes and consumers reactions.

- This method can be made quickly and cheaply and it is very simple and doesn't need any statistical calculations.
- Mostly industries go for this method while forecasting demand for new products
- The disadvantage is the salesmen may not be aware of economic factors which influences future demand.

d) <u>End Use Survey</u>:- This method is used to find the demand for intermediary products.
- We can calculate the demand for intermediary products by tracing out the demand for final products.

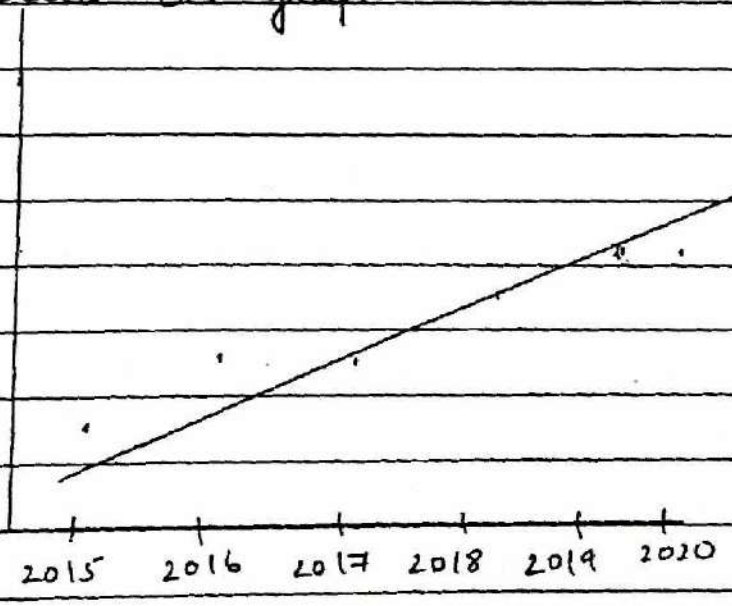
Eg:- Milk ~~can be used~~ is an intermediary good for the production of icecream, paneer and other dairy products.

<u>Quantitative Methods</u> :- These are forecasting techniques that make use of historical quantitative data i.e past sales of the firm is taken into consideration for forecasting demand. The methods like:

1. Trend projection Method
2. Barometric Method
3. Regression Method
4. Econometric Method.

1. <u>Trend projection Method</u> : The past sales of a firm are used to forecast future sales of a firm.
- In this method data is arranged chronologically which yields a 'time Series'
- Time Series represent the past pattern of demand of a product and is used to project the trend of the time Series.
- There are 2 methods
a. Graphical Method.
b. Least Square Method.

a. <u>Graphical Method</u> :- A trend line can be fitted through a series graphically.
- old values of sales for different areas are plotted on graph.



- A free hand is drawn passing through as many points as possible

b. Least Square Method :- This is a mathematical procedure, where an attempt is made to minimise deviations between the calculated and observed values.
- It is represented by

$$Y = a + bX$$

Y = Demand (sales) Dependent variable
X = Time period
a & b are constants - values to be estimated

2. Barometric Method :- In this method one set of data is used to predict another set. i.e a relevant indicator is used as a barometer of future demand.
- It helps in determining the general trend of business activities.
Eg:- If government allot land to XYZ society for constructing building, this indicates that there would be high demand for cement, bricks, & steel.

3. Regression Method :- This is a statistical technique which speaks about the nature of relationship and extent of relationship between two given variables. one is dependent & other one is independent.

Eg:- The age of the air condition and its annual repair or maintanence expenses

4. Econometric Method:- It is assumed that demand is determined by one or more variables
Eg:- Income, population etc.

- Demand is forecasted on the basis of systematic analysis of economic relations by combining economic theory with mathematical and statistical tools.

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UNIT - 2

Cost Analysis

Meaning of Cost :- The expenditure incurred in producing a commodity is termed as cost.
- It includes all the payments made for manufacturing the product.

Analysis : Detailed study of each and every component is called as analysis.

Cost Analysis : means Detailed study of each and every component of cost.

Importance of Cost Analysis :

1. Cost is a major source for 'profit Maximization'
2. It is the main consideration for 'Every Business Decision'
3. Cost is a issue for acquisition of 'Factors of production'
4. Cost is a subject for expansion of Business operations'
5. Cost is a weapon to fight with 'Market Competition'
6. Cost is a question for 'Success of a Technology'
7. Cost is significant to attain 'Customer Satisfaction'.

8. Cost is a foremost challenge to 'Entrepreneurial Success'
9. Cost is an important aspect to 'Managerial Economist'
10. Cost is the matter for 'Every Activity of Business'

Types of cost

1. Actual Cost & opportunity Cost
2. Fixed Cost & variable Cost
3. Explicit Cost & Implicit cost
4. Historical cost & Replacement Cost
5. Incremental cost & Sunk Cost.

1. Actual cost Vs opportunity cost:

Actual cost :- It is also called as outlay cost or Absolute cost. It means the actual amount of expenses incurred for producing or acquiring a good or service. - These are the costs which are generally recorded in the books of accounts.
Eg:- payment of wages, raw materials purchased, administration expenses etc.

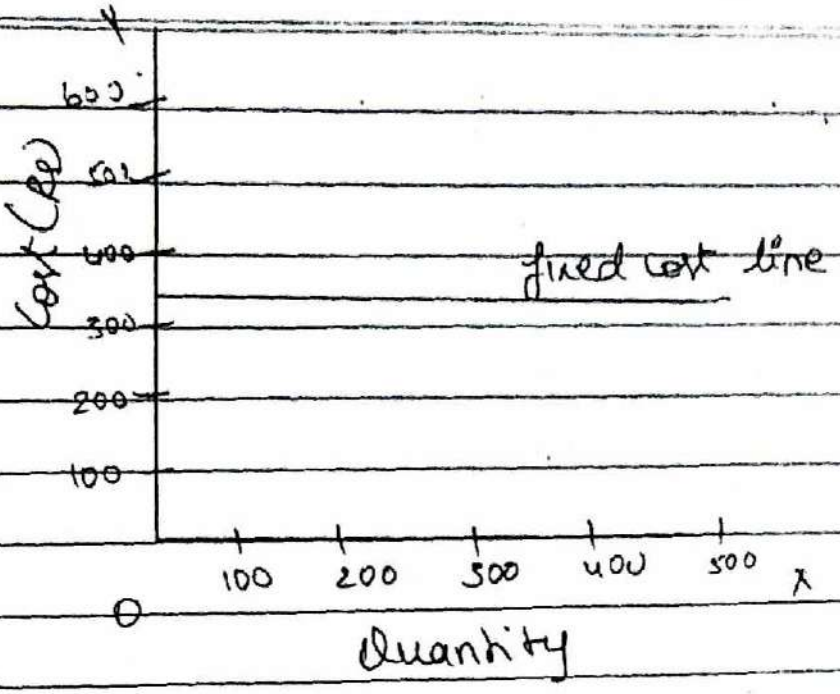
Opportunity Cost :- They are also known as Alternative Costs.
- It is not the actual expenditure incurred by the firm.
- It is measured in terms of opportunity lost, i.e the foregone benefits from the next best alternative use of a given resources.

Eg:- A farmer chooses to plant wheat instead of Rice, Producing Rice is the opportunity lost.
- A person buys pizza and with the same amount of money he could have bought a drink and a hot dog. The opportunity cost is drink & hot dog.

- opportunity cost is the value of something when a particular course of action is chosen.

2. Fixed cost vs Variable cost :-

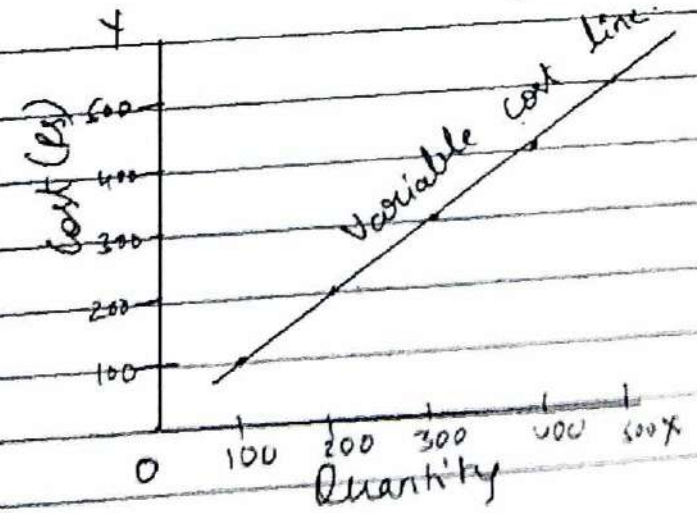
Fixed cost :- The cost that remains unchanged irrespective of the output level is called fixed cost.
Eg:- Rent, salaries, interest, electricity etc.
- Even if the production is stopped temporarily for a short period, we continue to spend on these fixed cost.



The above figure denotes fixed cost line. Whatever is the quantity produced the fixed cost doesn't change.

<u>Variable cost</u>:- The cost that changes with the changes in the volume of production. The cost raises with increase in production and reduces with the decrease in production.

Eg:- Raw material, wages etc.



3. Explicit and Implicit Cost

Explicit cost :- The cost which is actually incurred by the organisation during production.
- The money incurred in producing an article which are directly paid out by the producer.
- It is out of pocket cost. It refers to the one paid to the factors outside the firm.

Eg :- payment of wages, cost of machinery, cost of raw material, taxes, depreciation etc.

- These are recorded in the firm's account book.

Implicit Costs :- These are the costs which are due to the entrepreneur/owner for employing his own resources. The organisation doesn't directly incur them, but they are implied in nature which does not involve a cash payment.

Ex :- The owner may use his own land for production, for which no rent is paid by the organisation. But if the owner had rented his land to somebody, he would

have earned some rent
- Implicit cost are not recorded in the firms account book. eg: Interest on capital salary to owner, Rent of owner's building etc which do not occur in ~~real~~ reality.

4. Historical Cost & Replacement cost :

Historical Cost :- It is the original cost of an asset paid by the firm or the price originally paid for it.

Replacement Cost :- It is the cost of the same asset which is currently prevailing in the market.

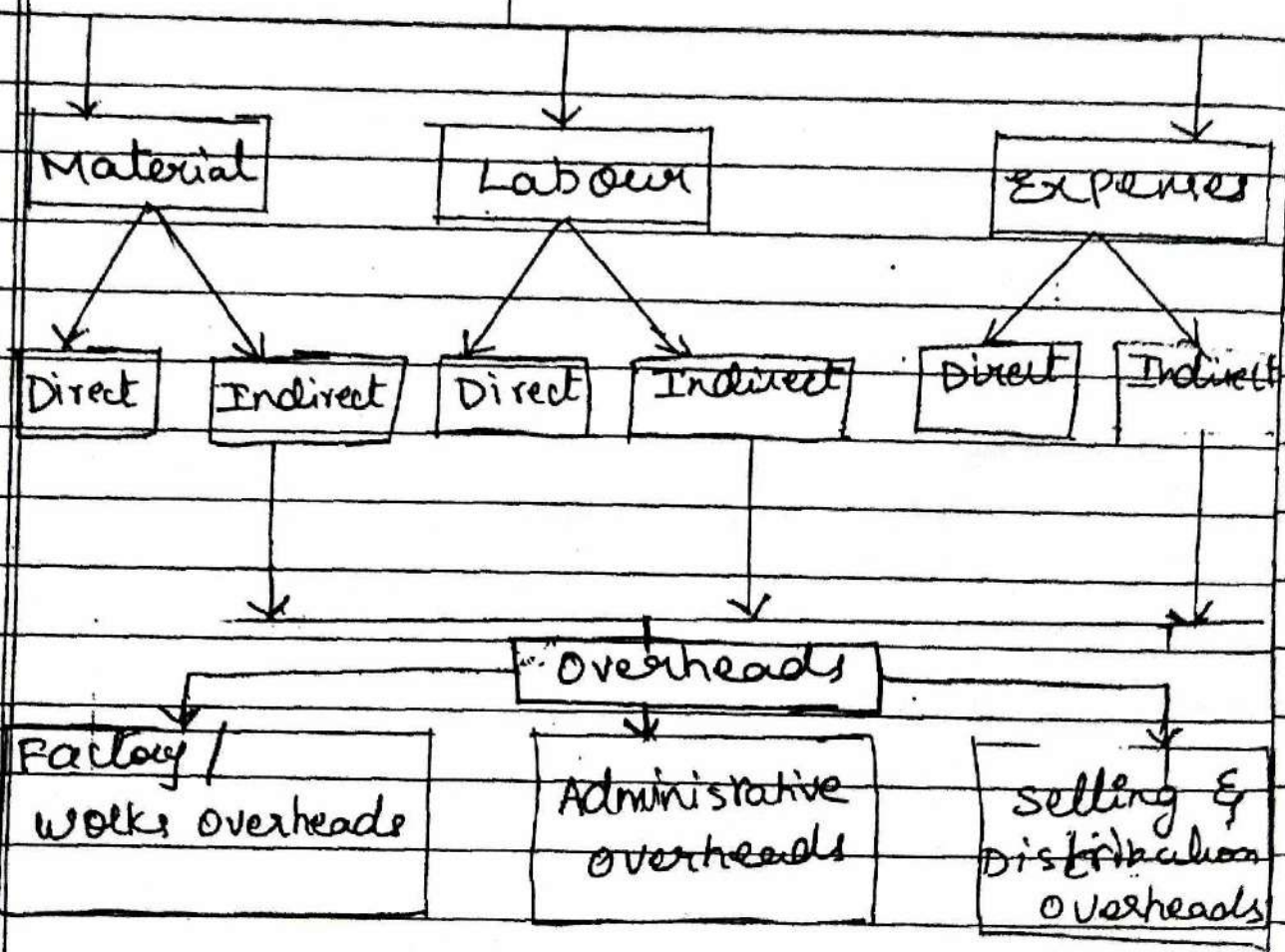
eg:- If the price of the machine at the time of its purchase is Rs 1,00,000 and now currently if it costs Rs 1,50,000. then historical cost is Rs 1,00,000 and replacement cost is Rs 1,50,000.

5. Incremental Cost & Sunk cost :

Incremental Cost :- It is the additional cost incurred due to the addition of a new product, or adding a new machinery, or change in the distribution channel etc.

Sunk cost :- If the cost remain same even after a change in the level or nature of business is sunk cost
Ex: Depreciation.

Elements of cost



I. <u>Material Cost</u> :- The material cost may be direct cost or indirect material cost.

<u>Direct Material Cost</u> :- The cost which can be identified with and allocated to cost units.

- Direct material generally become a part of the finished product.

<u>eg</u>:- Cotton used in textile mill is a direct material, wood used in making a table etc.

<u>Indirect Material Cost</u> :- The materials which cannot be identified with individual cost units. These are minor in importance such as

(i) small and relatively inexpensive items which may become a part of the finished product eg:- pins, screws, nuts, bolts, thread, glue etc.

(ii) those items which do not physically become a part of the finished products eg:- coal, lubricating oil, grease, soap, sand paper used in polishing etc.

II. Labour cost / Employee cost : This is the cost of remuneration paid to the employees of an organization.

Direct Labour : The cost paid to workers directly engaged in converting raw materials into finished products.
- The wages paid can be conveniently identified with a particular product, job or process.
Eg :- Wages paid to employees for manufacturing a product.

Indirect Labour : The employee cost which cannot be conveniently identified with a particular cost unit.
- Indirect labour are not directly engaged in the production operation but work to assist or help in production.

Eg :- Store keepers, watchman, Sweepers, etc. salary of Manager, Accountant, Supervisor salaries etc.

II. Expenses Cost :- All costs other than material and labour are termed as expenses. It can be defined as "the cost of services provided to an undertaking and the notional cost of the use of owned assets".

Direct Expenses :- The expenses which can be identified with and allocated to cost centres or units.
- These expenses are incurred in connection with a particular job or cost unit.
- Direct expenses are also known as chargeable expenses.

Eg:- Hire charges, Royalties, cost of special patterns, designs or plans for a particular job etc.

Indirect Expenses :- The expenses which cannot be directly identified with units of output, job.

Eg:- Rent, power, lighting, depreciation, bank charges, advertising etc.

Overheads :- on the basis of function overheads are classified as.

1. Factory Overheads.
2. Administrative overheads
3. Selling & Distribution Overheads.

1. Factory overheads :- This is the aggregate of indirect material + indirect wages + indirect expenses incurred in the factory.

Eg:- Factory Rent, Factory power, factory lighting and heating expenses incurred in the factory

2. Administration overheads / office overheads: All indirect administration expenses come under this category.
Eg:- Salaries of office staff, accountants, director's fee, office rent, office lighting, bank charges, stationery expenses etc.

3. Selling & Distribution overheads. This includes indirect selling and distribution expenses
Eg:- Salaries of salesmen, selling commission, advertising, warehouse rent, warehouse lighting, delivery van expenses etc.

Direct Material
+
Direct Labour
+
Direct Expenses
} Prime Cost

Indirect Material
+
Indirect Labour
+
Indirect expenses
} Overheads.

<u>Expenses excluded from Cost</u>

- Income Tax
- Dividend to shareholders
- Commission to partners, agents etc.
- Capital Loss
- Interest on Capital
- Interest paid on debentures
- Capital expenses etc.

Methods of Costing

There are various methods of costing, but the most prominent methods of costing are:-

1. Job costing
2. Contract costing.
3. process costing
4. Batch costing.
5. Unit costing
6. Service costing.
7. Multiple costing.

1. Job costing :- This method of costing is adopted by firms where each job is different from others.
- The job is done strictly according to the specifications given by the customer and usually the job takes only a short time for completion.
- The purpose of job costing is to ascertain the cost of each job separately

- Eg:- printing press, wedding cards, automobile garages, motor repair shops, film studios etc.

2. Contract Costing :- It is also known as terminal costing. It is used where the job is big and spread over a long period of time. The work is done according to the specifications of the customer.

Eg :- Apartment construction.. The purpose of contract costing is to ascertain the cost incurred on each contract separately. A separate account is prepared for each contract. In apartment construction - Sub contractors will be electrician, plumber, Mason, floor maker, painter etc. A separate account is opened for each contract. Eg :- Ship building, bridges, dams, etc.

3. Process Costing :- It is called continuous costing. In certain industries the raw material passes through different processes before it takes the shape of a final product.

- In other words, the finished product of one process becomes the raw material for the subsequent process.
- A separate account is opened for each process to find out the total cost as well as cost per unit at the end of each process. It is applied to continuous process industries such as textiles,

chemicals, paper, soap etc.

4. Batch Costing :- It is an extension of job costing. A batch is a group of identical products. All the units in a particular batch are uniform in nature and size.
- Hence each batch is treated as a cost unit and costed separately.
- The total cost of a batch is ascertained and it is divided by the number of units in the batch to determine the cost per unit.
- Batch costing is adopted by manufacturers of biscuits, ready-made garments, spare parts, medicines etc.

5. Unit Costing :- This method is also known Single or output costing. It is suitable to industries where production is continuous and units are identical.
- The objective of this method is to ascertain the total cost as well as the cost per unit.
A cost sheet is prepared taking into account material, labour and overheads.
eg :- Mines, drilling units, cement works, brick works etc.

6. Service Costing :- It is used in service organisations like transport, hotels, hospitals, colleges etc.
- All the costs incurred during a period are collected, and analyzed and then expressed in terms of a cost per unit of service.
- The estimation of cost of services is difficult.

7. Multiple Costing :- It is also known as composite costing. It refers to a combination of two or more of the methods of costing.
- It is adopted in industries where several parts are produced separately and assembled to a single product.
eg :- Automobile industry uses multiple costing.

Break-Even Analysis

Break-Even :- If a company attains no profit or loss such point is termed as Break-Even point.

Break-Even Analysis :- A careful study to determine how much sales your business needs to start making a profit.

- Break-Even point is a point where total cost is equal to total revenue, there is no profit or loss.

$$TC = TR = BEP$$

TC = Total cost
TR = Total Revenue
BEP = Break-Even point

TC = Fixed cost + Variable cost
In short

$$TC = F + V$$

Sales (S) = Fixed cost (F) + Variable cost (V) ± profit (P)

In short

$$S = F + V \pm P.$$

(or)

$$S = TC \pm P.$$

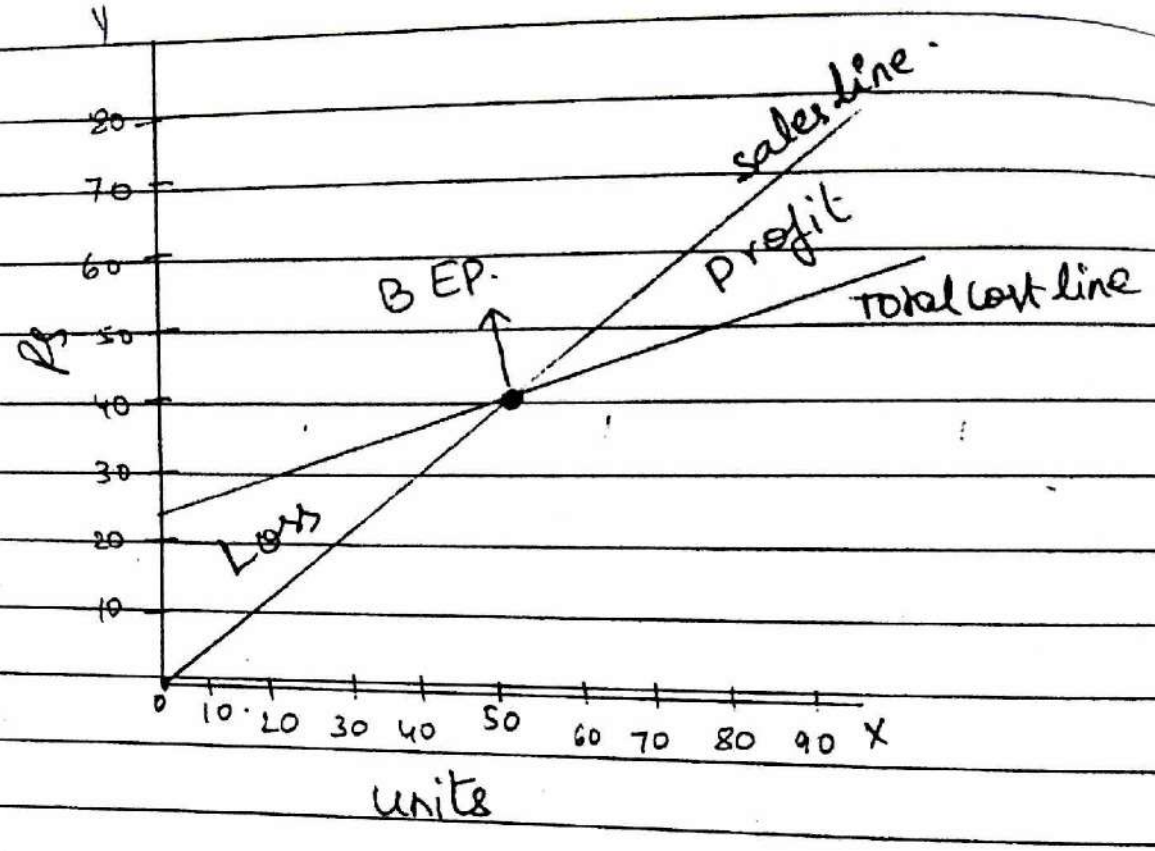
(or)

$$S - V = F + P.$$

<u>Contribution</u>: Sales above variable cost is taken as contribution.

$$C = S - V \,/\, F + P$$

Graphical representation of Break-Even point



Determination of Break-Even point

There are 2 methods to determine BEP of a firm.

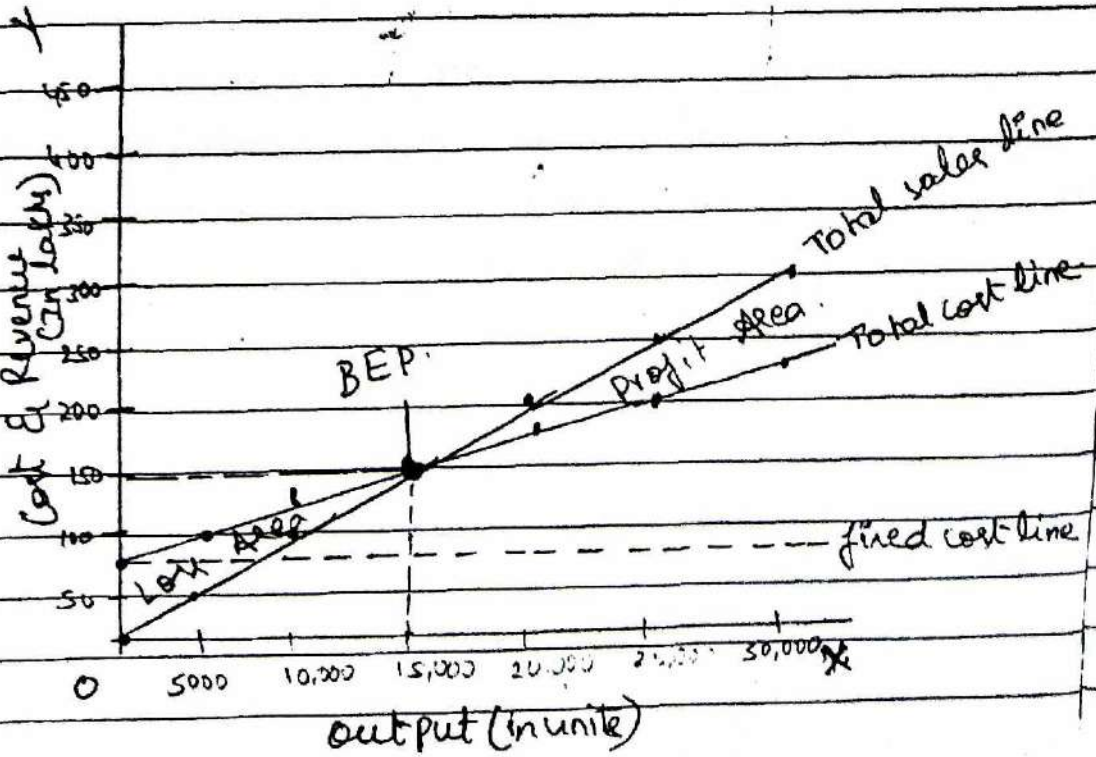
1. Graphical Method
2. Algebraic Method.

1. **Graphical Method** :- BEP can be calculated using graphical method.

Calculate BEP using graphical method from the details given.

Output (units) ①	Variable cost (per unit) ②	Total variable cost ③ 1×2	Fixed cost ④	Total cost ⑤ 3+4	Selling price per unit ⑥	Total sales ⑦ 1×6
0	5	0	75,000	75,000	10	0
5000	5	25,000	75,000	1,00,000	10	50,000
10,000	5	50,000	75,000	1,25,000	10	1,00,000
15,000	5	75,000	75,000	1,50,000	10	1,50,000
20,000	5	1,00,000	75,000	1,75,000	10	2,00,000
25,000	5	1,25,000	75,000	2,00,000	10	2,50,000
30,000	5	1,50,000	75,000	2,25,000	10	3,00,000

Solution.



From the graph BEP is at 15,000 units. i.e if the firm sells 15,000 units @ selling price Rs 10 the firm will attain Break Even point.

- The sales below 15,000 units brings loss and sales above 15,000 units brings profit.

- The fixed cost line is horizontal to OX axis because the fixed cost doesnt change with the changes in the volume of production.

2. Algebraic Method:- one of the method to determine BEP is algebraic method or formula method.

$$\text{BEP (units)} = \frac{\text{Fixed cost}}{\text{Contribution (per unit)}}$$

(In short)

$$\text{BEP (units)} = \frac{F}{C\text{ (per unit)}}$$

F = Fixed cost
C = Contribution = S − V / F + P.

S = Sales
V = variable cost
F = fixed cost
P = profit.

$$BEP\ (Rs) = \frac{F \times S}{S - V} \Big/ \frac{F \times S}{C}$$

Example :-

From the following data calculate BEP

Selling price per unit = Rs 50

Variable cost per unit = Rs 30

Fixed cost = Rs 2,00,000

$$BEP = \frac{F}{S - V \text{ (per unit)}}$$

$$= \frac{2,00,000}{50 - 30}$$

$$= 10,000 \text{ units}$$

The company Break-even if it sells 10,000 units.

Assumptions of Break-Even Analysis :-

1. All elements of cost ie production, administration and selling & distribution expenses can be divided into fixed, and variable components.

2. Variable cost per unit remains constant

3. Fixed cost remains constant for a specified level of activity

4. The selling price doesn't change with a change in the volume of sales.

5. Volume of production is the only factor that influences cost.

6. There will be no change in the general price level.

7. The firm deals in only one product and everything produced is sold.

Applications of Break-Even Analysis / uses of Break-Even Analysis :-
Break-Even analysis helps the managers in taking following decisions.

1. Sales Volume Needed to attain Target profit :- It is used to know the volume of sales necessary to achieve a given profit. The formula used to calculate to know the desired sales.

$$\text{Sales Desired} = \frac{\text{Fixed cost} + \text{Profit desired}}{\text{Sales} - \text{Variable cost}}$$

for example if the firm needs a profit of Rs 1,00,000 this month, how much sales are to be made to achieve Rs 100,000 can be calculated by BE-analysis.

2. Margin of Safety: It represents the difference between the sales at breakeven point and the total actual sales i.e.

MOS = Actual Sales - Break Even Sales

- Break-Even Analysis helps the management to know at a glance the profits at different levels of activity.

3. Make / Buy Decisions: sometimes firms have the option to decide whether to manufacture itself all the parts and components of the finished product.
- Break-Even Analysis helps the firm to decide whether to manufacture the component or buy from outside.
- The Variable Cost of the component is compared with outsider price and if it is less then manufacture the component and vice versa.
- The formula used to calculate

$$BE\ (units) = \frac{\text{fixed cost}}{\text{purchase price (or) outsider price} - \text{variable cost}}$$

Example: The firm requires 5000 units of component A. Fixed cost Rs 8000. variable cost Rs 10 per unit and it is

available from a ~~bu~~ outside seller at Rs 12 per unit.

Sol

$$BEP = \frac{\text{Fixed cost}}{\text{outsider price} - \text{variable cost}}$$

$$= \frac{8000}{12 - 10} \quad 4000 \text{ units.}$$

i.e the company can break-even at 4000 units and the firm needs 5000 units, so it can make profit, so the decision is to manufacture the component A.

4. <u>product Decisions</u> :- Break-Even Analysis enables a firm to decide whether to Add / Delete or continue a product.
- By comparing the contribution made by the product the firm can decide whether they have to add a new product, or delete an existing product or whether to continue producing the product without deleting.

5. <u>Pricing Decisions</u> :- The pricing can't be normal when there is Recession / Depression / Stiff competition. Break-Even Analysis helps in reducing the prices below the ~~cost~~ total cost if it gives contribution.

6. <u>plant shut-down Decisions</u> :- The firm can decide to shut-down the operations of a firm if it is not providing contribution. If there is no contribution i.e Sales - variable cost then it can shut down.

7. <u>product Expansion Decisions</u> :- whether to expand the business or not is also dependent upon the ~~contribution~~ extra contribution made after expansion.
- Break-Even Analysis helps in deciding whether to expand or not.

Limitations of Break-Even Analysis :-

1. Break-Even Analysis is based on the assumption that all costs can be divided into fixed and variable cost. - But in practice, however it may not be clearly differentiated.

2. It assumes that fixed cost remain constant at all levels of activity - But it should be noted that fixed costs tend to vary beyond a certain level of activity.

3. It assumes that variable cost vary proportionately with the volume of output. But they move, no doubt but not necessarily in direct proportions.

4. It assumes that selling price remains unchanged which may not be true as it depends on market demand and supply, competition, income etc.

5. The assumption is that only one product is produced or that product mix will remain unchanged is difficult to find in practice.

6. It is assumed that all quantities produced will be sold - but is not possible in reality.

UNIT - 3

Market Structures :-

Market :- It is defined as a place or point at which buyers and sellers negotiate their exchange of product / services

Market Structure :- It refers to the characteristics of a market that influence the behaviour and performance of firms that sell in that market

Market Structure classification

1. Perfect Competition
2. Imperfect Competition
   - 2 - Monopoly
   - 3 - Monopolistic Competition
   - 4 - Oligopoly
   - 5 - Duopoly

1. Perfect Competition :- It is a market structure in which large number of sellers sell a homogeneous product at uniform prices.

Features of perfect competition :-

1. Large number of buyers and sellers :- As there are large number of sellers no one can influence the market price.
- The output of any single firm is only a small portion of the total supply.

2. Homogeneous product :- The products supplied by all firms are standardised or identical.
Eg :- Vegetables, food grains etc.

3. Free Entry / Exist :- under conditions of free entry and exist the firm will earn only normal profit.
- If the profit is more than normal new firms will come into the market, thereby reducing the profit.

4. Perfect Knowledge :- The sellers and buyers posses perfect information about the market. It implies that no buyer or firm is ignorant about the price prevailing in the market.

5. Perfect Mobility of factors of production: The factors of production i.e land, labour, Capital etc are completely mobile leading to factor-price equalization throughout the market.

6. Absence of transport Costs:- If transport costs are there, prices will differ in different sectors of the market.

7. Each firm is a price taker: A firm can alter its rate of production / sales without affecting the market price of the product.

8. No government Intervention:- It neither imposes taxes on the product, nor provides subsidies at the same time and no legal restrictions on entry and exit.

Imperfect Competition: It may be classified as 1. Monopoly 2. Monopolistic Competition, 3. Oligopoly 4. Duopoly.

Monopoly:- It refers to a market situation where there is only one seller of a product.
- The product will not have a close substitutes. The single firm constitutes the

whole Industry.
- He can fix the price of his product and can pursue an independent price policy.
- Mono means single and poly means seller.

Features of Monopoly

1. Single seller and large number of buyers:- under monopoly there is one seller and therefore a firm faces no competition from other firms.

2. No close substitute:- under monopoly there is no close substitute for the product sold by the monopolist.

3. Restriction on the entry of new firms:- under monopoly new firms cannot enter the industry.

4. Price Maker:- A monopoly firm has full control over the supply of its products and hence it has full control over its price.

5. Possibility of price Discrimination:- It is a market situation where a single seller sells the same commodity at two different prices in two different markets at the same time. Eg:- Indian Railways ticket fares - sleeper class, 3rd A.C, 2nd A.C, 1st A.C, general tickets are available to customers.

6. Firm and industry are same :- In monopoly as there is one seller the firm and industry are same.

Example of Monopoly :- Indian Railways.

Comparsion between perfect competition & Monopoly.

	Perfect Competition	Monopoly.
1.	Large number of producers	Single producer.
2.	Freedom of entry to producers	No entry, it is restricted.
3.	producers are in competition	No Competition.
4.	producers has no control over supply	producer has complete control over supply
5.	Market determines price and producer is a price taker.	producer decides the price, he is the price maker.
6.	uniform price is charged from all buyers	price discrimination is practiced

7.	Super normal profit can be earned in the short-run, only normal profits can be earned in the long-run due to free entry of firms.	Super normal profits can be earned in short run and long run as long as conditions remain the same in the market.

Monopolistic competition

- It is a market situation in which both monopoly and competitive elements are present.
- It may be defined as the market situation in which large number of sellers sell differentiated products.
- Monopolistic competition is close to perfect competition but in perfect competition products are homogeneous in Monopolistic competition products are differentiated by brand name, trade mark, design etc so that buyers are in position to distinguish between products supplied by different firms.

eg:- Toothpaste - we have brands like colgate, pepsodent, sensodyne, oral-B.

Dantkanti, Amway glister, close-up, Meswak, Himalaya Dental cream etc.

Features of Monopolistic Competition

1. Large number of sellers and buyers :- In monopolistic competition the number of sellers are large and act independently without any mutual dependence.

2. Product Differentiation :- Most of the firms under monopolistic sale products which are not homogeneous in nature but are close substitutes

3. Non-price Competition :- Different firms may compete with each other by spending a huge sum of money on advertisements keeping the product prices unchanged.

4. Selling Cost : Firms invest a lot on advertisement and sales promotion activities to persuade a particular product in preference to other products.
- some advertisements have become so popular that people use a brand name to describe the product. Eg:- Surf - is a brand name but we use it for all washing powders, Xerox is a brand name we used it for photocopy etc.

5. Free entry and exit :- There are no restrictions on the entry & exit of new firms.

6. Price Decision :- It is decided by the firm based on product differentiation, quality, brand name and loyalty.

7. Earns normal profits :- The firm can only earn normal profits in the long run and there arises no supernormal profit or loss.

Oligopoly

- It is a market with competition among the few.
- Each seller commands a sizeable proportion of the total market supply.
- If the firms sell homogeneous product it is termed as - 'Perfect oligopoly'
- If the firms sell differentiated products it is termed as - Imperfect oligopoly.
- The number of firms is so small that every seller is affected by the activities of others.
- This market structure exists in automobiles, white goods such as T.V. A.C, refrigerators, mobile manufacturers etc.
- It is difficult for new firms to enter because of huge investment.

Features of Oligopoly

1. Few Sellers :- There are few sellers in oligopoly market, so each and every seller is affected by the activities of others.

2. Interdependence :- It is the most important feature in oligopoly as the each firm contribute a significant portion of the total output the result of ~~on~~ actions of one firm affects others. Eg :- any measure to promote sales, it directly affects other firms and they should also immediately react.

3. Nature of product :- A firm under oligopoly may produce homogeneous goods which is called perfect oligopoly - eg :- cooking gas supplied by Indian oil & HP. - oligopoly may also produce differential products with product differentiation
Eg :- Automobile Industry

4. Barrier to Entry :- As the firms requires huge initial investment, unlimited size of the market etc creates such barriers upon the entry of new firms.
Eg :- Domestic Airlines in India.

Duopoly :-

- It is a market situation in which there are only two sellers.
- Any decision taken by one seller will have a reaction from the other.
- when the producers are more than 2 it is oligopoly.
- Both the producers may come to an agreement on price and output

Example :- pepsi vs Co-Cola, Uber vs ola, Swiggy vs Zomato, Amazon vs flipkart.

- The features of oligopoly are applicable to Duopoly ~~like~~ i.e.

1. only 2 Sellers.
2. Interdependence
3. Barrier to entry etc.

Pricing :-

Price :- It is the amount of money charged for a good or service.

Meaning of pricing :- It is a process of determining what a company will receive in exchange of its product.
- It is the most important business decisions you will make.
- Right price is one of the important determinants of business success.

Importance of pricing :-

1. Organisation Survival : pricing helps the product or service to survive in the market. New firms entering into the market adopts a pricing covering fixed and Variable cost, so that it attracts customers.

2. Profit Maximisation : Effective pricing will help the firm in maximization of profit.
- The primary objective of any business is to earn profit. It can be possible only if pricing of product is done accurately.

3. Increasing market share :- Many firms charge low prices for capturing greater market share. Higher sales volume leads to lower production cost and increase profits in long-run.

4. Target Return on Investment (ROI) :- Return on investment or Higher Return on investment can be earned only when pricing is done effectively.

5. Meeting Competition :- If the firm has to fight with competitors prevailing in the market, it is only due to right pricing

Methods of pricing

The methods can be classified into 4 categories.

I. Cost-based pricing Methods :- The pricing methods which are based on cost i.e covering total cost - fixed and variable cost.

a) Full-cost pricing :- It is also called absorption cost pricing. The price is determined by covering fixed and variable

costs i.e total cost is considered to fix the price of the product.

b) <u>Mark-up pricing</u>:- Mark up refers to the value that a player adds to the cost price of a product.
i.e

Selling price = Cost + Mark up.

- The mark-up pricing method, calculates all the costs of purchasing or producing the product and then adds a desired mark-up to it

<u>Eg</u>:- Suppose a unit cost of a product A is Rs 80 and the firm has desired return or mark-up of 20%.

$$\text{Markup price} = \frac{80}{1 - \frac{20}{100}} = \text{Rs } 100$$

c) <u>Marginal Cost pricing</u>:-

<u>Marginal cost</u> :- the cost of producing one extra unit of production.

<u>Eg</u>:- If firm produces 100 units and total cost is Rs 5000, if 101 units are produce the cost is Rs 5025. The extra

cost for producing 1 unit is Rs 25

- It mainly focuses on marginal cost of a product i.e only variable cost is considered to determine the price of a product. i.e if variable cost of product is Rs 10 and fixed cost is Rs 1000.

- Acc to marginal cost only Rs 10 is taken into consideration for determining the price.
- It is relevant in transportation and public services where fixed costs may be relatively high.

d) Break-Even pricing: This method is similar to break-even analysis. here the company needs to price the products such that it generates profit after recovering fixed and variable costs.
- The selling price should be equal to or more than the break-even price.

II. Demand-based pricing Methods

a) Penetration pricing :- If the firm wants to penetrate into the new market then this method can be followed.
- Launching the product with low price and it can secure high volumes.

b) Market Skimming pricing :- If the product is highly priced and launched into the market it is skimming pricing.
- ~~short~~ - It is suitable for products which have short life cycles uses skimming pricing
Eg:- New mobile phone launched in the market - iphone. It is initially launched at high price and skim the market and gradually reduces the price after few months.

III Competition - based pricing Methods

a) Going rate pricing :- The pricing is done as per the competition in the market. The prices may be below that of ~~an~~ competitors or it may be based on the leaders ~~firm~~ price and that should be adopted by the rest of the companies or pricing may be above competition if the firm has goodwill and loyalty.

b) Sealed bid pricing :- In this kind of pricing method buyer doesn't prefer open market price but demands that the seller provide their rates in a sealed

form Commonly known as tenders.
In this pricing buyer makes a demand to a large number of qualified firms to provide a product or services and the sellers make their offer under sealed cover.

c) Discount pricing :- Traders and buyers were offered price concessions in the form of deductions from the list price of the amount of a bill. These are forms of indirect price competition.

The common forms of discount pricing are:

Trade discount :- It is given to buyers buying for resale Eg:- wholesaler or retailer.

Cash discount :- It is a rebate or concession given to a consumer 10% discount or 15% discount to encourage sales.

Quantity discount :- These are given to the customer to encourage large purchases Eg:- 1+1 offers, By Buy 2 get 2 free etc

Seasonal Discount :- During unseason inorder to sale the firm offers seasonal discount Eg:- Accessories free for a car if buy in november and december months.

IV. Internet pricing Methods :

a) Flat-rate pricing :- It is the most widely used pricing scheme for the Internet - access.
- This model involves a fixed monthly fee that allows the end-users an unlimited access to the Internet.

Eg :- Pay 1000 per month and use unlimited.

- This method increases the usage and simple to explain the bill.

b) Usage - Sensitive pricing :- The utility tariff is divided into two sections, the provider first charges for the service connection and then for the usage in terms of price per unit.
- usage sensitive pricing may vary based on time of day, (usage free from night 12 to morning 6) duration of data transfer, or type of media transferred.

UNIT- 4

Introduction to Accountancy:

Accounting :- Accounting is the language of finance. It is all about the process that helps to record, summarise, analyse and report data of all financial transactions.

In simple -

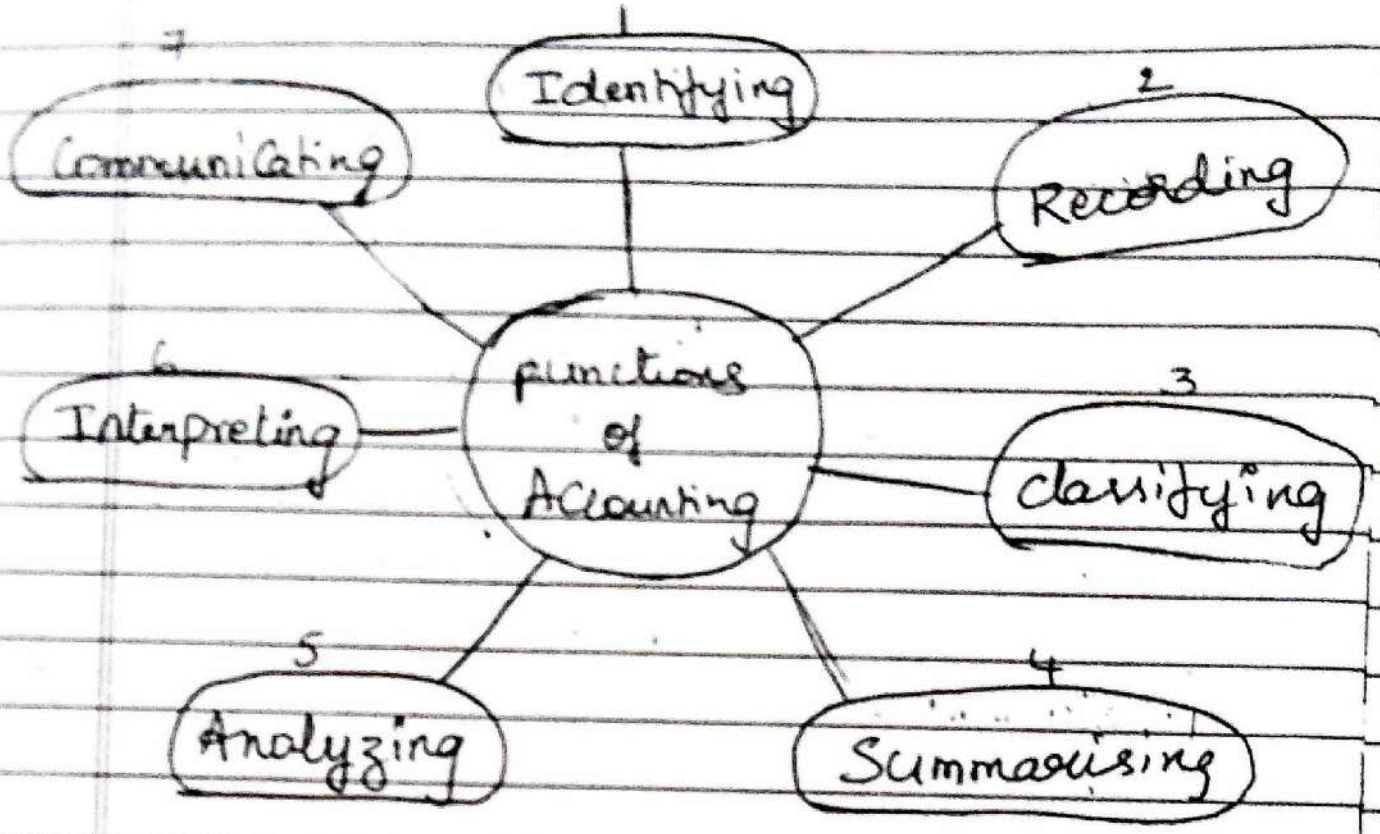
- Accounting is an art of Identifying, Recording, classifying, summarising and interpreting the transactions of financial nature to know the year end profit/loss and financial position of a firm.

Definition of Accounting :-

American Accounting Association (AAA) :- defined "Accounting is the process of identifying, measuring, communicating economic information to permit informed judgements and decisions by users of the information.

American Institute of Certified public Accountant (AICPA) defined - "Accounting is the art of recording, classifying, summarising in a significant manner and in terms of money transaction, and events which are in part of atleast of a financial character and interpreting the results thereof."

Functions of Accounting



1. Identifying :- All financial transactions of a firm are to be identified first.
Financial transaction :- A transaction in which money can be seen. i.e the transaction with monetary terms.
Eg:- Paid Salaries - Rs 10,000
transaction + money

2. Recording :- The next step after identifying is Recording the financial transactions in the form of a 'Journal'. It is a list in chronological order of all

the transactions of a business

3. Classifying :- After recording in Journal the next step is to classify in the form of 'Ledger'. It is the summary of the transactions that relate to a certain account.

4. Summarising :- The classified data is displayed in understandable and easy to use statements such as balance sheet, trial balance etc.

5. Analyzing :- A methodical classification of recorded data and presenting in financial statements such as Trading a/c, profit and loss a/c, Balance sheet.

6. Interpreting :- Accounting information is interpreted in such a way so that it is easily understandable to all the users of accounting information.

7. Communicating :- The accounting information is to be communicated to all the internal users - managers, owner, employees. External users - creditors, shareholders, Investors, Government and public.

Importance of Accounting

1. **Systematic Recording of Business Transactions:** Accounting is helpful in systematically recording all the financial transactions of a business. As the human brain is not able to remember all the transactions they have to recorded.

2. **Profit & Loss Attained:-** The business has to know the year end profit or loss attained after deducting all the expenses from the income.

3. **Ascertainment of Financial position:-** Each firm should know about the financial position i.e whether the firm is in solvent or insolvent position by reducing the liabilities from the assets. If assets are more than liabilities it is in solvent position. ~~or vice versa~~

4. **Preparation of Financial Reports:-** Accounting helps in preparation of financial reports to all the end users of accounting information.

5. Communicates Financial Information :- It communicates the information to internal and external users by preparing financial statements.

6. Aid to decision making :- The manager can take decisions based on the financial progress of a firm. If loss occured reasons for loss can be known by checking the expenditure.

7. Legal evidence :- It is a tool for legal evidence as they are prepared and published in newspapers about the yearly results.

8. Helps in Comparative study :- The financial statements of earlier years can be compared with present year so that errors or changes can be known.

System of Accounting

- Single Entry System :- This system has no complete record of transactions.

- Double Entry System :- one account is given debit while the other account is given credit with an equal amount.

Classification / Types of Accounts

- Personal Account
- Impersonal Account
  - Real account
  - Nominal account

Personal Account :- These are the accounts of
(i) Natural persons - Eg:- Ramu, Raju, Kiran, Mohan, Rohan etc.
(ii) Legal / Notional persons like Name of companies, name of banks, insurance companies, financial institutions and so on.

Impersonal Account :- The accounts other than name of persons and firms are called as Impersonal Accounts. They can be in 2 forms.

a) **Real Account** :- They are the properties / assets of a firm. The assets can be tangible

or intangible.
- Tangible assets are those which can be seen, felt and touched. Eg:- plant and machinery, land and buildings, furniture etc.
- Intangible assets (not having physical existence) are valuable resources of a firm which have exchange value eg:- goodwill, patents, trademarks etc.

b) Nominal Accounts :- The accounts which relate to expenses, income, profits and loss accounts of a firm are called nominal accounts.

Rules of Double Entry System / Rules of Debit & Credit :

	Type of Account	Rules of Debit / Credit
1.	personal Account	Debit the receiver Credit the giver
2.	Real Account	Debit what comes in Credit what goes out
3.	Nominal account	Debit all expenses and losses Credit all incomes and profits

Tips for debited and crediting

- Every transaction will have 2 accounts one account to be debited and another account to be credited.

eg:- purchased machinery - Rs 1,00,000
the 2 accounts in this transaction
1. Machinery a/c
2. Cash a/c

Example of what account to be debited or credited in personal account :

Ram ~~goods~~ brought goods from Krishna - 10,000

2 a/c affected in this transaction -
1. Ram a/c - personal a/c - Debit
2. Krishna a/c - personal a/c - credit

Rule is Debit the receiver and credit the giver.

Ram is the receiver of the transaction so debit
Krishna is the giver of the transaction so credit.

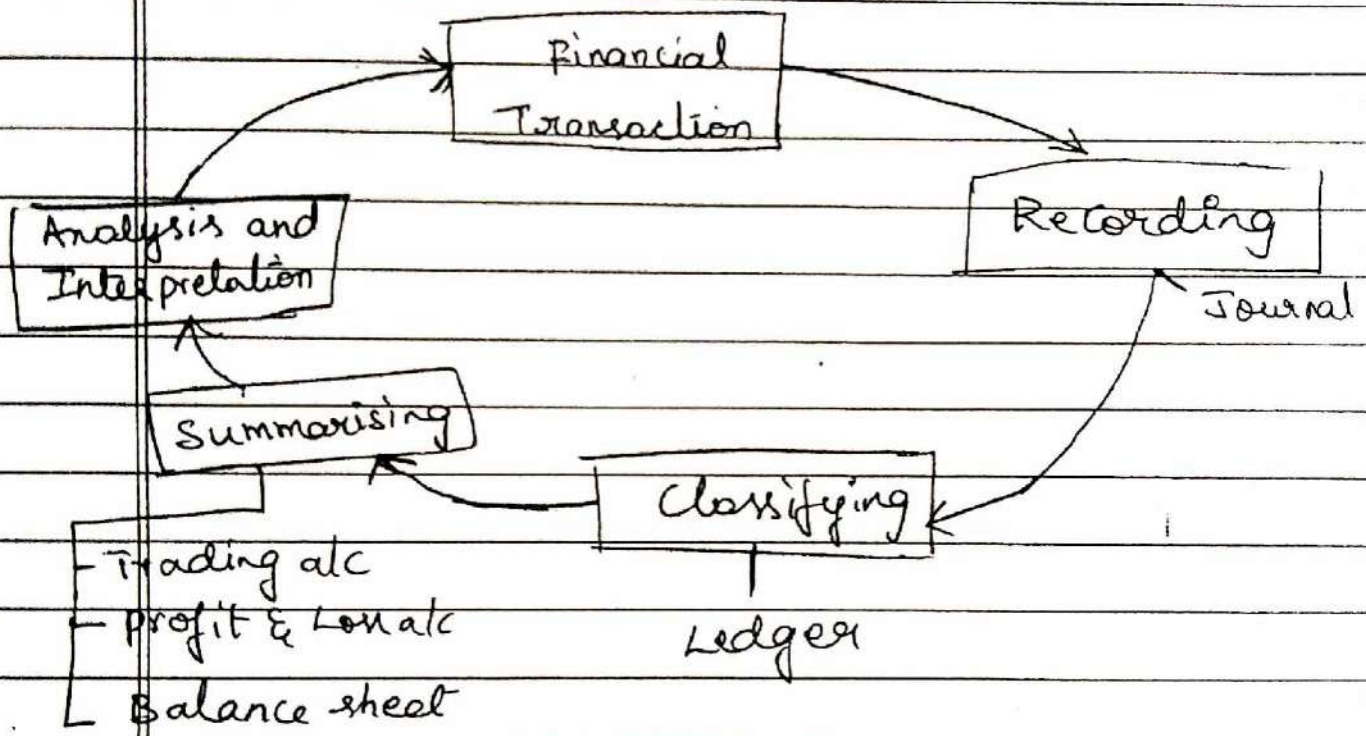
Example for Real a/c

Transaction - purchased machinery - Rs 1,00,000
1. Machinery a/c - Real a/c - Debit
2. Cash a/c - Real a/c - Credit

Debit what comes in
credit what goes out

Example of nominal a/c
Paid salaries – Rs 10,000
1. Salaries a/c – nominal a/c – Debit
2. Cash a/c – Real a/c – Credit.

Accounting cycle



1. **Recording** :- It is done in the form of a Journal.

Journal :- It is a list in chronological order of all the transactions for a business. Since the accounting record of a transaction is first recorded in Journal book, it is called as the book of original or first entry. The entry (having one

debit and one credit) is known as Journal entry.

Proforma of Journal

Date	Particulars	LF	Debit Rs	Credit Rs
1	2	3	4	5

Column 1 - the date of the transaction is entered
Column 2 - the two accounts of a transaction are entered
Column 3 - the page no in the ledger to which the entry is finally transferred is entered.
Column 4 & 5 - Enter the amount to be debited and credited.

Points to be kept in mind for recording in the Journal

1. The transaction must be recorded in the Journal in the order of date.

2. In deciding which account is to be debited and which account is to credited i.e the

rules of debit and credit must be carefully followed. It must be remembered that rules never vary.

3. In particulars column the names of the two accounts must be entered.
Debit aspect will be written in the first line
Credit aspect will be written in the second line it should start with word '<u>To</u>'

4. The letter 'Dr' must be written after the name of the a/c to be debited.

5. Every entry in the Journal must be followed by a description of the transaction called 'Narration'. Narration provides us a record of the details of the transaction, which can be used for reference.

6. The letters of 'Rs' must be written at the top of the amount columns.

<u>Example</u>: Feb 1 2020 - Purchased machinery - Rs 1,00,000

Date	Particulars	LF	Debit Rs	Credit Rs
	Machinery a/c Dr		1,00,000	
Feb 1 2020	To Cash a/c			1,00,000
	(Being machinery purchased for cash)			

2. Classifying in the form of 'Ledger'

- The second step in the accounting cycle is to classify the accounts in the form of 'Ledger'

- Transactions relating to a particular account may take place in different dates eg:- cash account and they are entered in different pages of Journal.
- By referring the Journal it is not possible to find out the position relating to a particular account on a given date.
- To overcome this, classification is done in the form of 'Ledger'

Proforma of Ledger

Dr — Name of the account — Cr

Date	Particulars	JF	Rs	Date	Particulars	JF	Rs
1	2	3	4	1	2	3	4

points to be remembered

1. Each ledger account is divided into two parts. The left hand side is known as the debit side and the right hand side is known as the credit side.
- The words 'Dr' and 'Cr' are used to denote Debit and Credit.

2. The name of the account for which classification is done is mentioned on the top (middle) of the account

3. The date of the transaction is recorded in the date column

4. The word 'To' is used before the accounts which appears on the debit side of an account in the particulars column. Similarly the word 'By' is used before the accounts which appear on the credit side of an account in the particulars column.

5. The name of the other account which is affected by the transaction is written either in the debit side or credit side in the particulars column.

6. The page number of Journal from where the entry is transfered is entered in Journal folio (JF) column.

7. The amount pertaining to this account is entered in the amount column.

Example of Ledger

Dr Cash a/c Cr

Date	Particular	JF	Rs	Date	Particulars	JF	Rs.
Feb 1 2020	To Rami account		5,000	Jan 1 2020	By machinery		1,00,000
Feb 28 2020	To balance c/d		95,000				
			1,00,000				1,00,000
				Feb 1	By balance b/d		95,000

Advantages of Ledger

1. Complete information at a glance: All the transactions pertaining to an account are called at one place in the ledger. By looking at the balance of that account, one can understand the collective effect of all such transactions at a glance.

2. ~~Arithmetical~~ Arithmetical Accuracy :- with the help of ledger balances, Trial balance can be prepared to know accuracy of accounts.

3. Result of Business Operations :- It facilitates the preparation of final accounts for ascertaining the operating result and the financial position of the business concern.

4. Accounting Information :- The data supplied by various ledger accounts are summarized, analyzed and interpreted for obtaining various accounting information.

Differences between Journal & Ledger

	Journal	Ledger
1.	It is a book of first or original entry.	It is the book of second entry.
2.	when once the entries are posted to ledger the Journal loses its importance	It will never loose importance as it is the main book of accounts which is relied upon permanently.
3.	It is not useful in the preparation of final accounts	It is useful in preparing trial balance and final accounts

4.	The tax authorities generally may not depend on Journal	Tax authorities depend on ledger for finalisation of income tax.
5.	In Journal ledger folio (L.F) is written	In Ledger Journal Folio (J.F) is written.

Trial Balance

- It is a statement which is prepared to check the arithmetical accuracy of the ledger balances is known as "Trial Balance".

- It is the first step in the preparation of financial statements.
- It assists in the identification and rectification of errors.

Importance of Trial Balance

1. Checking the arithmetical accuracy of the accounting enteries.
2. Basis for preparing financial statements.
3. Summarised Ledger

Example of Trial Balance

Trial Balance as on 31-Dec 2020

Particulars	Debit Rs	Credit Rs
Cash account	12000	
Capital account		10000
Purchase Account	4000	
John account		2,000
Sales account		4,000
Total.	16,000	16 000

3. Summarising in the form of Financial Statements

Financial Statements are sometimes refer to as Final accounts.

It constitutes

1. Trading Account
2. profit & Loss Account
3. Balance sheet

1. Trading account:- It shows the overall results of purchasing and selling of goods.
- It includes all direct expenses incurred

in the business.

- It provides gross profit earned by the business, if total sales are greater than total total purchases and direct expenses or vice versa.

Format of Trading Account

Dr Trading a/c for the period ending (xxxxxx date) Cr

Particulars	Rs	Particulars	Rs
To opening stock	xxx	By Sales xxx	
To purchases xxx		Less: Returns xxx	xxx
Less: Returns xxx	xxx	By closing stock	xxx
To wages	xxx		
To Freight, Custom & Import duty	xxx		
To Carriage inwards	xxx		
To Clearing charges	xxx		
To factory power	xxx		
To factory Rent	xxx		
To factory lighting	xxx		
To Royalties	xxx		
To any other manufacturing expenses	xxx		
To gross profit c/d	xxx		
	xxxx		xxxx

Items on the Debit side of Trading Account

Opening stock :- It refers to the total cost of goods left unsold at the beginning of the current accounting period.

Purchases :- It refers to the total cost of goods purchased, both in cash and credit.
Purchase returns :- They are also called as Return outwards. i.e some goods which are spoiled or damaged may be returned back by the manufacturer.

Wages :- It refers to the amount paid to the workers for manufacturing, loading and unloading of goods.

Freight, customs & Import duty :- It refers to the amount paid for freight, customs and import duty when the goods are purchased from outside the country.

Carriage Inwards :- The direct expenses that are incurred while transferring the purchased goods from vendor to the factory

Clearing Charges :- when goods are imported from other countries clearing charges should be paid.

Factory power, Lighting & Rent :- To produce the goods in a factory there are some direct expenses like Rent, lighting, power & any other factory expenses comes in the debit side of Trading a/c.

Royalties :- It refers to the amount paid to the owner for using his rights.

Manufacturing Expenses : The expenses spent on gas, electricity, water, fuels which are required to run the factory.

Gross profit :- If credit side total is more than the debit side of Trading account it will give gross profit.

Items on Credit Side of Trading Account

Closing Stock :- It refers to the total cost of the goods that are left unsold at the end of the accounting period.

Sales :- It refers to the total cost of goods sold, both in cash and credit

Sales Returns :- If once the goods sold are returned back by customers they should be deducted from Sales amount. They are also called as Return Inwards.

2. Profit & Loss Account :-

- It is a statement of all indirect expenses and all incomes related to business.
- Indirect expenses include those expenses such as administrative, selling, distribution and financial expenses that are spent for the operation of business.
- It provides net profit or net loss earned by the business.

Items on the Debit Side of Profit & Loss a/c

Administrative Expenses :- The expenses related to administration such as office salaries, Rent, Taxes, insurance, printing & stationery, office Repairs & Renewals etc.

Selling and Distribution Expenses :- The expenses of selling and distribution expenses like Godown Rent, Packing expenses, advertising, agents commission, Bad debts, Travelling expenses, salesmen salaries, carriage outward Discount allowed etc.

Financial expenses :- Discount allowed, Interest on capital and loans comes under financial expenses.

Maintanence and Depreciation Expenses :- Repairs to Buildings, furniture, machinery etc & Depreciation on various assets such as Buildings, machinery, furniture etc.

Reserves & provisions :- Sometimes the firm reserve money for certain expenses like discount on debtors, reserve for doubtful debts etc.

Contents of Profit & Loss Account

Dr Profit & Loss a/c for the period ending (date) (xxxx) Cr

Particulars	Rs	Particulars	Rs
To Administrative Expenses		By gross profit b/d	xxx
Office Salaries	xxx	By Discount received	xxx
Office Rent, Rates & Taxes	xxx	By Commission received	xxx
Office Lighting	xxx	By interest received	xxx
Office insurance	xxx	By Rent received	xxx
Printing & Stationery	xxx	By Dividend received	xxx
Postage & Telegrams	xxx	By income from investments	xxx
Legal expenses	xxx	By bad debts recovered	xxx
Audit fee	xxx	By profit on sale of asset	xxx
General expenses	xxx	By Sundry income	xxx
Office Repairs & Renewals	xxx	By Net Loss	xxx
Bank charges & Commission	xxx		
To Selling & Distribution expenses:			
Godown Rent & Taxes	xxx		

packing expenses	xxx		
Advertising	xxx		
Agents commission	xxx		
Bad debts	xxx		
Travelling expenses	xxx		
Discount allowed	xxx		
Brokerage	xxx		
Free samples	xxx		
Trade expenses	xxx		
Carriage outwards	xxx		
Delivery Van expenses	xxx		
To financial expenses			
Discount allowed	xxx		
Interest on capital & loan	xxx		
To Maintenance & Depreciation			
Repairs to Buildings, furniture, machinery	xxx		
depreciation on machinery, furniture, Buildings	xxx		
To provision & Reserves			
Reserve for doubtful debts	xxx		
To Net profit	xxx		
	xxxx		xxxx

Items on the Credit Side of P&L a/c

Gross profit :- It is transferred from the Trading account.

Interest received : It refers to the amount received as interest on investment

Discount / Commission received :- It refers to the discount received from the suppliers or creditors. If the firm receive any commission as an income.

Rent / Income for any other investments :- If the firm receive any Rent and any income from any other investments.

Dividend received :- If the firm ~~bu~~ owns any Company shares and receive dividend is is shown in the credit side of P&L a/c.

Bad debts recovered :- Bad depts are when the Company sells the products on credit some of them may not pay the amount in time they are called Bad debts. If such bad debts are recovered.

Profit on sale of any asset or any Sundry income :- If the firm sales any asset and made a profit.

Net profit / Net Loss :- If net profit attained by the firm it appears on the debit side and then transfered to Capital account in the balance sheet. Net Loss appears on the credit side of P&L a/c if the expenses are more than income and it is transfered to capital account. Net loss reduces the capital and Net profit increases the capital.

3. Balance Sheet

- It is a statement that states the financial position of the business.
- It is a statement of assets and liabilities of a firm on a particular date.

American Institute of Certified public Accountants defined "Balance sheet is a list of balances of assets and liability accounts. This list depicts the position of assets and liabilities of a specific business at a specified point of time".

Contents of Balance Sheet :- Horizontal form of a Balance sheet

ABC company Ltd balance sheet as on (date xxxx)

Liabilities		Rs	Assets	Rs
Capital	xxx		Land & Buildings	xxx
Add:- Net profit/	xxx		Plant & Machinery	xxx
Less:- Net Loss	xxx	xxxx	Furniture	xxx
Reserves & Surplus		xxx	Good will	xxx
Long-term loans		xxx	Investment in govt-Securities / shares	xxx
Sundry Creditors		xxx	Sundry Debtors	xxx
Bills payable		xxx	Bills receivable	xxx
short term loans		xxx	Cash in hand	xxx
Bank overdraft		xxx	Cash at Bank	xxx
outstanding expenses		xxx	Stock in trade/ Closing stock	xxx
			prepaid expenses	xxx
		xxx		xxx

- **Liabilities** :- The left side of a Balance sheet represents the liabilities of the business.
- They are the claims of creditors against the assets of a firm.
- The categories of liabilities are -

a) Current liabilities - The liabilities that

are payable within a year
Fixed liabilities :- The liabilities that are to be paid atleast after a year

Capital :- It is the amount invested by the owner of the firm.

Reserves & surplus :- It is the amount saved by the business when profit has attained.

Long-term loans :- the loans taken by firm from financial institutions, banks or creditors.
Current liabilities :- These are the current liabilities
Sundry Creditors :- The firm will take short-term credit from suppliers and pay them within one year.

Bills payable :- The bills that need to be paid within 6 months are called bills payable

Short-term loans :- The loans taken from banks or from financial institution for short-term i.e within 1 year.

Bank overdraft :- The excess amount withdrawn from the account of the firm is called Bank-overdraft.
Outstanding expenses :- The expenses yet to be paid by the firm.

Assets :- The right side of Balance sheet represents the assets of the business.
- Assets represents the resources acquired by the business.
- The Categories of assets are :
- Current assets :- The assets that can be easily convertible into cash.
- Liquid assets :- The assets that can be immediately convertible into cash without any loss - Eg :- Cash at hand, cash at bank.
- Fixed assets - The assets that are acquired for carrying out the business and not meant for resale. Eg :- plant & machinery.
- Intangible assets :- The assets like goodwill and patents that cannot be seen or touch.
~~- Fictitious assets :- The assets that are fictitious~~

UNIT - 5

Capital :-

Meaning :- Capital means the amount or assets which are invested in business by businessman or owner of business

- when a person starts any business, he brings some money in cash and some other assets like building, furniture and machinery - This will be his capital.

- In accounting Capital means the balance amount of assets which is left after subtracting amount of liabilities from total assets.

Capital = Total Assets - Total Liabilities

Need for Capital :-

- To incorporate a business
- To conduct business operations smoothly
- To expand or diversify the business
- To meet contingencies as future is uncertain
- To pay taxes to the government
- To pay dividend to shareholders and interest to the creditors.
- To replace the assets whenever needed
- To support welfare programmes to employees

Types of Capital

- Fixed Capital
- Working Capital

Fixed Capital :- It is a portion of Capital which is invested in acquiring long term assets which are used for several years are Commonly Known as Fixed Capital.

Examples of Fixed Capital

- plant and Machinery
- Land and Buildings
- ~~Furn~~ Furniture etc.

- It is compulsory initial investment made by the entirpreneur to start up the activities of his activities.

Features of Fixed Capital

1. **Purchase of Fixed Assets :-** The fixed assets may be tangible or Intangible fixed assets includes land, building, plant, machinery, patents, copyrights etc.

2. Promotion and expansion of business :- Fixed capital is required for promoting business activities. In case of expansion, modernization and diversification of business.

3. Low liquidity :- "Anything which is easily sealable in the market and gets an expected value is said to be liquidity. - fixed Capital is not ~~sealable~~ easily sealable.

4. Permanent in Nature :- fixed capital has a long-lasting existence. It is permanent in nature. It can be withdrawn only when the business closes or shuts down.

5. Primary Sources :- fixed capital are shares, debentures and long-term loans. They are the primary source of an organisation.

6. Amount of fixed Capital :- The amount of fixed Capital depends on various factors like Nature of business, size of company, location of business, methods of production etc.

7. Long-term needs :- Fixed capital is used to meet the long-term needs of business like amalgamation, Merger, foreign collaborations etc.

8. Source of wealth and risk :- It is a source of wealth as well as source of risk. This is because it causes Depreciation of fixed assets, normal repairs and maintenances etc.

9. Source of profit :- fixed assets are also sources of profit as these assets help in earning of profit through the sale of products.

10. Appreciation & Depreciation :- Appreciation means an increase in the value of asset and depreciation means decrease in the value of the asset.

Importance of Fixed Capital

- It is used for purchasing fixed assets like land, building, plant & machinery etc.
- It is also used for purchasing intangible assets like patents, copyrights etc.
- It is required for promoting the business.
- It is required for expansion, modernization, and diversification of business.

- It has a permanent existence in the business to meet its long-term assets.

- It is a part of total capital invested in the business.

- It is a compulsory initial investment made in the business.

Working Capital :-

- It is also called circulating capital, which is used to meet regular or recurring needs of the business.
- The regular needs refers to the purchase of materials, payment of wages and salaries, expenses like rent, advertising, power etc.

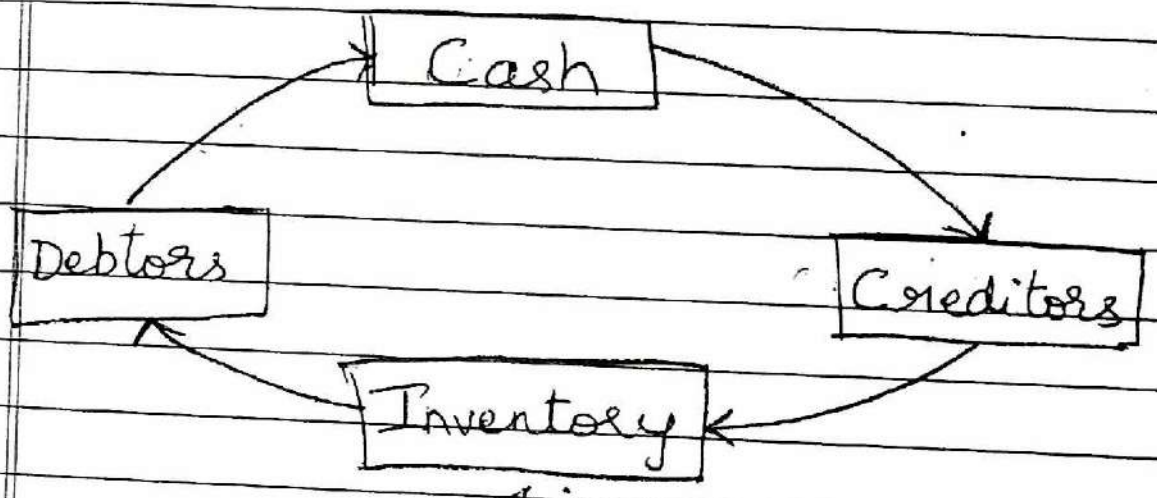
Objectives of Working Capital

- Meet day to day cash flow needs.
- pay wages and salaries when they fall due.
- pay creditors to ensure continued suppliers of goods and services.
- pay government taxation and provide dividends to shareholders.
- Ensure the long term survival of the the business entity.

Components of Working Capital

The working Capital cycle is mde made up of four ~~are~~ components.

1. Cash
2. Creditors / Accounts payable
3. Inventory
4. Debtors / Accounts receivables.



Cash : Cash is the king and also an essential component of current asset and Cash involves not just cash only but all liquid securities which can be readily converted into cash.

- proper cash management is one of the important Component in working Capital cycle.

Creditors :- Accounts payable or Creditors is the amount due to the persons which is to be paid by the business.
- The firm purchases raw materials from suppliers on credit.
- They are a significant part of current liabilities.
An effective payable management ensures timely payment and cordial business relations with vendors and creditors.

3. Inventory : It is the stock hold by the firm, it may be in the form of raw-materials, semi-finished and finished goods.
- It forms a significant part of current assets.
- Inventory management ~~is the~~ involves timely purchase of materials, proper storage and efficient utilization to maintain even and orderly flow of finished goods to meet timely commitment by the business.

4. Debtors / Account Receivables :- The firm sells products on credit basis to customers.
- They form a significant form of current assets. It also includes the amount due to the bills receivable.
- An effective receivables management ensures timely collection and avoidance of bad debts.

- A more extended trade receivable period will result in a delayed collection of cash, impacting the cash conversion cycle of the business.

Factors Influencing Working Capital

1. Nature of Business: The amount of working capital depends on the kind or nature of business. Trading organisations need less working capital when compared to manufacturing organisations.

2. Size of Business: Bigger companies require working capital than smaller ones.

3. Time and Complexities of Manufacturing process
- If the manufacturing process is long and complicated, then more working capital is required and vice versa.

4. Manufacturing Cost: If production cost of a product is high then working capital required is more and vice versa.

5. Growth and Expansion: If a company is growing and expanding its business activities, then it will need more working capital to maintain its growth.

6. Terms of purchase and Sales :- The working Capital requirements of a company depends on its terms of purchase and sales, if company makes cash sales then it requires working Capital.

7. Conditions of Supply :- If supply of raw materials is regular, then the company can keep less inventory. So, it will require less working capital and vice versa.

8. Market Conditions :- If the competition is intense then the company has to spend a lot of money on advertising campaigns and sales promotion. less competition and recession less working capital.

9. Position of Business Cycle :- In boom period, as the sales are high the company has to spend a lot of money on raw materials, wages etc and during recession the firm needs less working Capital.

10. Rate of Turnover :- If sales are fast, then less working capital is required and vice versa.

11. Seasonal Variations :- If product has seasonal variations during peak season more working Capital and vice versa.

Methods of Raising Finance.

(5 years above) Long-term Sources	(1-5 years) Medium-term Sources	(Below 1 year) Short-term Sources
- Equity Shares	- public deposits	- Bank credit
- preferencial shares	- Loans from Banks	- Trade Credit
- Debentures	- Lease financing	- Installment credit
- Retained Earnings	- Venture Capital	- Advances
		- Commercial Papers
		- Factoring

I Long-term Sources :- Based on time period the capital / finance may be raised through long-term sources.

- These sources the time period is above 5 years and some amount may be fixed capital untill the organisation runs / exists.

a) Equity Shares :- The money raised by the issue of equity shares is equity share Capital.

- They are the real owners of the company and carry voting rights and receive dividends on the basis of profit earned by the company.
- Equity shares investment is highly risky and speculative.
- They are the main source of finance for a firm.

Features of Equity Shares

- They are permanent in nature and exist till the organisation exists.
- They are the actual owners of the company and they bear the highest risk.
- They are transferable to other persons
- Dividend payable to equity shareholders is an appropriation of profit.
- They do not get fixed rate of dividend.
- They have the right to control the affairs of the company.
- The liability of equity shareholders is limited to the extent of their investment.

b) Preference Shares :- The capital raised by issue of preference shares is preference share capital.
The amount of dividend paid is fixed
They carry preferencial rights on the matter of payment of dividend and repayment of capital.

Features of preference Shares

- They are long-term source of finance.
- The dividend payable on preference shares is generally higher than debenture interest.
- They get fixed rate of dividend irrespective of the volume of profit.
- It is known as hybrid security because it bears the characteristics of equity shares and debentures.
- They do not have voting rights.
- They have preferential right for repayment of capital in case of winding up of the company.

c) Debentures :- If the company needs funds for extension and development purpose without increasing its share capital, it can borrow from the general public by issuing certificates for a fixed period of time and at a fixed rate of interest.

- Such a loan certificate is called 'Debenture'
- They are issued under the common seal of the Company acknowledging the receipt of money.

Features of Debentures

- They are the creditors of the Company carrying a fixed rate of interest.
- They are redeemed after a fixed period of time
- They may be either secured or unsecured.
- Interest payable on a debenture is a charge against profit and hence it is a tax deductible expenditure.
- They do not enjoy any voting right.
- Interest on debenture is payable even if there is a loss.

d) Retained Earnings: A company generally doesn't distribute all its profit amongst the shareholders as dividends.

- A portion of profit is retained in the business for use in future
- It is one of the source of internal financing used for fixed as well as working capital

Features of Retained Earnings

- It is the cheaper source of finance
- The use of retained earnings helps avoid issue-related costs and provides financial stability.
- usage of internal finance do not have any legal formalities.

II. Medium-term Finance :- The companies may use medium-term finance for meeting the requirements below 5 years. The time period is above 1 year and below 5 years.

a) Public Deposits :- They refer to the unsecured deposits invited by companies from the public mainly to finance working capital needs.

A Company can invite public deposits for a period of six months - 3 years. They are the source of medium-term or short-term finance.

However the deposits can be renewed from time-to-time. Renewal facility enables companies to use public deposits as medium-term finance.

Features of Public Deposits

- The Company gives an advertisement and issue a receipt to each depositor - so it is simple basis.

- Interest paid on public deposits is lower than paid to debenture and bank loans. ∴ they are a cheaper source of finance.

- They are unsecured and ∴ do not create any charge on company's assets.

- They are flexible and can be raised whenever needed.

- Interest on public deposits is paid at a fixed rate

b) Loans from Banks :- They are the easiest source of availing finance.
- A bank loan is an extension of credit by a bank to a customer or business, it has to be paid along with interest.

Features of Bank loan

- It is a short term or medium source of finance.

- A bank loan may be either secured or unsecured depending upon the circumstances.

- The interest charged by the bank on such a loan may be either fixed or variable.

- If mortgage loan is to be obtained, the borrower has to pay a number of fees such as inspection, application fees etc.

c) Lease Financing :- It is one of the important source of medium and long-term financing where the owner of an asset gives another person, the right to use that asset against periodical payments.

- The owner of the asset is known as lessor and the user is called lessee.

Features of Lease Financing

- There are essentially two parties to a contract i.e owner and the user in lease financing.

- The basic lease period during which the lease is non-Cancelable.

- The lessee pays lease rental to the lessor.

- At the end of the period, the contract may be terminated.

d) Venture Capital: This is a very important source of financing for a new business.
- Here money is provided by investors to start a business that has strong potentiality of high growth and profitability.
- The provider of venture capital also provides managerial and technical support.
- It is also known as risk capital.

Features of venture Capital

- venture capital investments are made in innovative projects.

- Benefits from such investments may be realized in the long-run

- Suppliers of venture capital invest money in the form of equity capital.

- As investment is made through equity capital, the suppliers of venture capital participate in the management of the company.

- The suppliers of venture capital may be a person or organisation.

III. Short-term Finance Methods

a) Bank Credit: Commercial banks extend short-term financial assistance in the form of short-term loans, cash credit or overdrafts

b) Trade Credit: It is a short-term credit extended by the creditors for buying the raw materials and other supplies on credit.

c) Installment Credit: If the mode of payment for the purchase of goods is on installment basis over a pre-determined period of time it is termed as installment credit

d) Advances: Some business organisations get advances from their customers in order to minimise their investment in working capital

e) Commercial Paper: It is an unsecured promissory note issued by large firms to other business firms
- It is a short term debt instrument typically for financing inventories and meeting short term liabilities

f) Factoring: It is an agreement with the third party in which a business sells its accounts receivables to a third party (called a factor) at a discount to meet immediate cash needs.

Example: The firm 'X' generally gives a credit of 3 months for its customer 'Y' for payment of money. Suppose X needs immediate cash it enters an agreement with a third person 'Z' and offers a discount.

Suppose X sold Rs 1,00,000 worth goods to Y. If X needs money immediately it enters into agreement with 'Z' and offers discount of 7,500 and gets cash of 92,500. Y need to pay an amount of Rs 1,00,000 to 'Z' after 3 months.

Depreciation

Meaning :- It is the decrease in the value of fixed assets due to their use in business or passage of time.

- It is the permanent and continuing diminution in the quality / quantity / value of an asset.

Causes of Depreciation

1. Wear & Tear :- Due to constant use of fixed assets in business, the value of such assets is decreased. It is called Wear and Tear.

2. Passage of time :- Every asset has a certain economic useful life. With the passage of time, effective life of the assets goes on decreasing.

3. Depletion :- It is the reduction of natural resources. Assets like mines, quarries, oil wells have reduction in the assets.

4. obsolescence :- Due to innovations, the asset based on old technology may become obsolete and out of date. Eg :- Walk-mans.

5. Accidents :- when accidents occur it may also cause a permanent fall in the useful life as well as in the value of assets.

Importance / objectives of Depreciation

- To ascertain true and fair profits by valuing the fixed assets.
- To show the asset at its proper value.
- To make arrangement of funds for replacement of fixed asset.
- To ascertain accurate cost of production.
- To comply with legal provisions
- To avail tax benefits.

Methods of Depreciation

- Straight line Method
- Diminishing Balance Method

I Straight Line Method

- It is the simplest and one of the widely used method of providing depreciation.
- This method is also called fixed Installment or Equal Installment method.
- It is calculated at a fixed % on original value of the asset in every year

Formula for calculating Depreciation using straight line Method

$$\text{Annual depreciation} = \frac{\text{original cost of the asset} - \text{Estimated Residual value (Scrap value)}}{\text{estimated useful life of the asset in years}}$$

Example: A machine which has a life of 5 years is purchased at a cost of Rs 17,000 and will have a scrap value of Rs 2000. Calculate depreciation using straight line Method.

$$\text{Annual depreciation} = \frac{17000 - 2000}{5}$$

$$= \text{Rs } 3000$$

Year	opening book value	Depreciation	closing book value.
1	17000	3000	14000
2	14000	3000	11000
3	11000	3000	8000
4	8000	3000	5000
5	5000	3000	2000

Merits:

- It is very easy to understand and simple to calculate.

- It is suitable for those assets whose useful life can be estimated accurately.

- Depreciation remains same throughout the life of the asset.

Demerits

- In this method, the depreciation amount will remain same throughout the life of the asset.
- But in ~~not~~ reality depreciation and repairs will be lesser in the earlier years and gradually increase in the later part of the life of the asset.

- It is very difficult to estimate the life of the asset with accuracy.

- It is difficult to estimate scrap value.

- This method is not suitable for long term assets which have heavy investments.

II. Diminishing Balance Method

- This method is also known as Reducing Balance Method / written down value method.
- under this method, depreciation is charged at a fixed % on the book value of the asset.
- The amount of depreciation decreases year after year.
- In this method the amount of depreciation

is larger in the earlier years than in the later years.

Formula for calculating Depreciation rate

$$r = 1 - \left(\frac{S}{C}\right)^{1/n}$$

r = Rate of Depreciation
n = Estimated useful life of asset
S = Residual / scrap value after the expiry of useful life of asset.
C = Original cost of asset.

<u>Example 1</u>:- If estimated life of asset is 3 years, scrap value is Rs 64000 and cost of the asset is 1,00,000 calculate rate of depreciation using Diminishing Balance method.

$$r = \left(\frac{64000}{1,00,000}\right)^{1/3}$$

$$r = 1 - \frac{40}{100}$$

$$= \frac{60}{100} = \underline{\underline{60\%}}$$

Example 2 :- The cost of a machine is Rs 5,00,000 and rate of depreciation is 40%. Calculate depreciation for 5 years using diminishing balance method.

Year	Opening value of an asset	Depreciation		Closing value of asset
		Rate of dep	Rs	
1	5,00,000	40%	2,00,000	3,00,000
2	3,00,000	40%	1,20,000	1,80,000
3	1,80,000	40%	72000	1,08,000
4	1,08,000	40%	43,200	64,800
5	64,800	40%	14,800	50,000

Merits :-

- This method is logical as the asset grows older, the amount of depreciation also goes on decreasing.

- Income Tax Act 1961 accept this method for Tax purpose.

- This method is suitable for those assets which has longer life and can be used where obsolescence rate is high.

Demerits :

- It is difficult to calculate the rate of depreciation.
- The book value of the asset doesn't become zero.

Straight Line VS Dimishing Balance Methods.

	Basis of diffe	Straight Line Method	Dimishing Balance Method
1.	Basis of calculation	Dep is calculated on the original cost	Dep is calculated on the Book value
2.	Amount of Depreciation	It remains constant	It decreases year after year.
3.	Nature	Dep expenses increases in later years	Dep expenses decreases in later years.
4.	Recognition by Income Tax	Not Recognized	Recognized.
5.	Suitability	Suitable for assets which have less repairs	Suitable for assets which has more repair expenses.
6.	Formula for rate of dep	$r = \frac{\text{Depreciation} \times 100}{\text{cost}}$	$r = 1 - \left(\frac{S}{C}\right)^{1/n}$