

## UNIT-I

### \* Business Economics :-

"Business Economics deals with the basic concept of management which are applied to the economics of environment".

"Business Economics is the application of economic concepts and tools in order to take the optimum decisions for profit maximization."

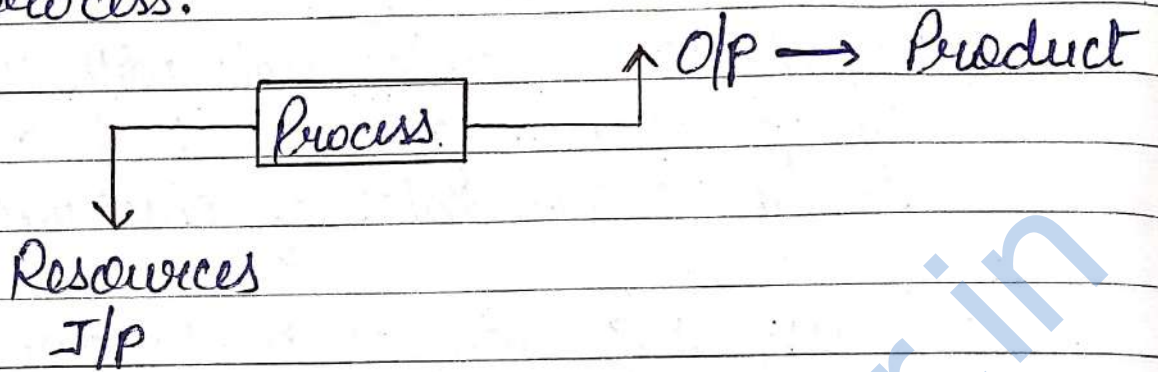
"BE is the decision making science which develops the relation between the variables".

### \* Three basic problems of Economics :-

1). What to produce - We may use the resources alternatively so to satisfy the maximum need of society.  
Production possibility curve defines the alternate use of resources to satisfy the need of society.

2) - How to produce - Every resource requires certain and specific process for getting converted into the desired output.  
So, the process which is responsible for converting the resources into final

Output shall be known as the conversion process.



★ labour Intensive technique :-  
In this technique the resources are consumed, or converted by the way of man power. So, the human resource is the major factor during the application of labour Intensive technique.

NOTE:- Every conversion or production product requires some energy to drive the production wheel. As per the economic process this energy can be achieved by labour or by capital.

★ Capital Intensive technique :-  
It is generally used in large scale companies where the bulk production is required. In further the capital is invested in purchasing heavy duty machinery and technology.

Here the energy is achieved through the mechanised process.

3) - Whom to produce? -

Resources has the transparent and alternative uses. So, the nation has to decide that what quantity of resources shall be consumed country and how much of resources would be spared for future consumption.

A. Scope of Economics: - (or Importance, Nature)  
Economics now a days is increasing in day to day decision making because of following scope -

- 1- The theory of demand.
- 2- The theory of supply.
- 3- The theory of production.

Production: -

Production is a creative human activity which converts the input into output with the help of limited resources and for satisfying the unlimited wants of consumers.

4) - The theory of cost: - Cost is the expense incurred over the production.

5- The theory of price:-  
Price is the combination of cost and this surplus cover the cost.

6- The theory of market:-  
Definition of Market:-  
Market is a geographical place where the buyers and sellers come into such interaction for deciding the different quantities of product at various prices.

\* Component of Market:-  
There are five Market Component.

- 1- buyer - who demands
- 2- Seller - who supplies
- 3- The Commodity - The bundle of utility.
- 4- Price - value of commodity.
- 5- Negotiation - Terms and conditions for the maturity of interaction.

\* Some new age markets:-

- 1- Cyber Market.
- 2- Space Market
- 3- Online Market
- 4- E Market

\* The theory of profit:-

Profit is the <sup>Surplus</sup> ~~cost~~ <sup>cover</sup> the cost. Profit is an essential item for a firm because without the profit no firm may survive in long run because every commercial activity requires certain financial investment and this statement comes through the profit.

\* Macro economics:-

- 1- It deals with the economic condition of Country.
- 2- It studies the domestic and abroad trade. The imports shall be known as leakage and the exports will be known as injections.
- 3- It deals with the industrial policies, population, employment and living condition.
- 4- Legal framework of country.
- 5- Political Stability, population and literacy rate-

The ~~process~~ progress and development of any nation depends upon the per capita income of that nation. The population besides the resources distribution between among the citizen. More no. of people will require

greater resources and it will reduce the per capita income of such country. So, the population is a major point for deciding the economic growth of any country. Political stability gives the enough time and resources for implemented the planning in respect of available resources. A political opportunity for the long term plan so, under the governance of a political stable structure the country has more chances to grow economically.

\* The four basic concepts of economics:-

1- Opportunity Cost:- Opportunity cost is the cost of sacrifices the options available in order to select the one best possible alternate.

✓ OC is the amount of subjective value in choosing one alternative over the next best alternate.

\* Incremental Concept:-

This concept belongs to the change in total cost resulting from a particular decision. It shall be referred to will be remainder cost or incremental

$$P = f(C)$$

Discounting principle - If a decision affects cost and revenues at future dates, it is necessary to discount those cost and revenues to present values before a valid comparison of alternative possibilities.

$$V = \frac{A}{1+I}$$

V → Present value

A → Actual amount

I → Current Interest rate

Equimarginal principles :- This principle deals with the allocation of the available resources. An input should be so allocated that the value added by the last unit is the same in all cases. Shift of resources from low marginal value activities to higher value activities will change the marginal product.

Time respective Concept :- As per the economic logics and concepts the decision horizon can be divided into two broad areas-

- 1- Long run decisions - Any time beyond the 5-6 years spend will be considered long run. Here the decisions will be taken in light - vendor relation, investment plans, employee training,

employees appraisal and development, mergers, acquisitions, joint ventures etc.

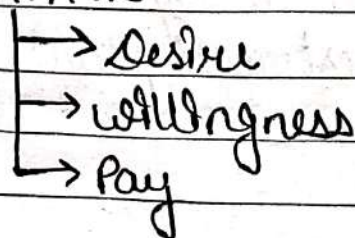
2- Short run decisions - Any planning horizon which requires upto 5 year period will refer to the short run decision. Here we take the decisions like - order fulfillment, yearly bonus, overtime payments, sending of resources, licence for the commercial activities, annual budget. On the basis of decision making we can divide the firms into 3 categories -

Small scale firm - 0 to 50 lakhs investment.  
Middle Scale firm - 25 lakhs - 1 crore.  
Large Scale firm - beyond 1 crore.

\* Demand :- "Demand refers to that amount of commodity which is required by people at different - different prices during a specific time period."

"Demand is the desire for a product backed by the willingness and ability to pay."

DEMAND





"Demand refers to the quantity of product which will be bought by the buyer at certain prices in different-different markets."

### Types of Demand :-

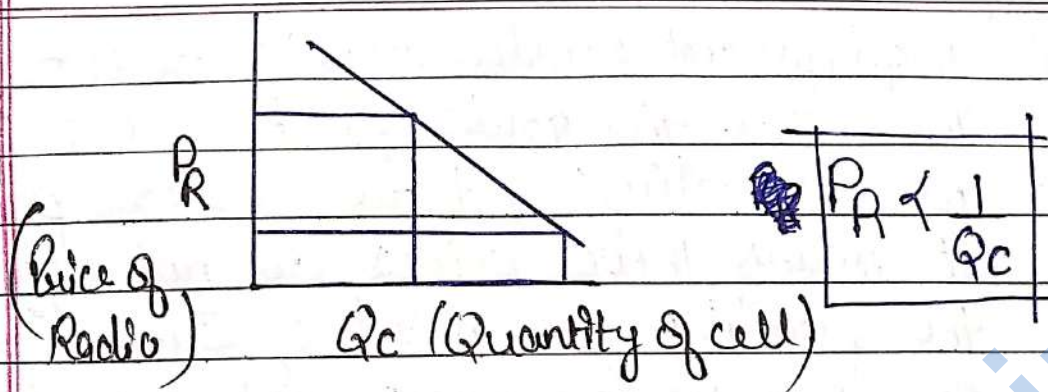
- 1- Demand for consumer goods - These are the goods which are purchased for immediate consumption or final consumption.
- 2- Demand for producer goods - The goods which shall be purchased for commercial or manufacturing purpose.
- 3- Demand for perishable goods.
- 4- Demand for durable goods.
- 5- Demand for company goods.
- 6- Demand for industrial goods.
- 7- The autonomous demand - When the demand for a product is independent.
- 8- Induced demand - These are the demands for the product which are dependent on other products.

\* Function of demand -

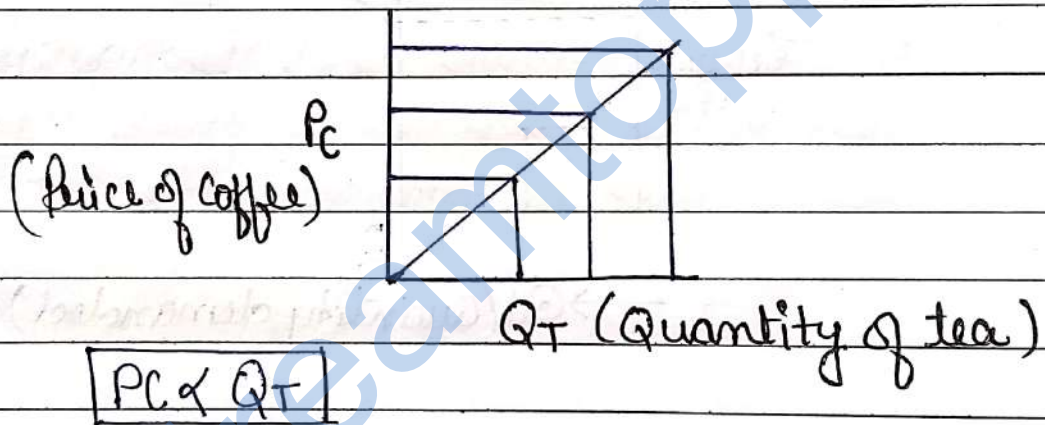
$$dq = f(P)$$

### Determinants of demand (7P theory) -

- 1- The preference and Taste :- It works based upon the ordinal utility theory which means that every consumer behaves in a orderly manner. And the taste suggests the loyalty of consumer towards a specific product or brand.
- 2- Price of Product :- It is evidently proved that the lower prices attracts more people and higher price repulse the consumers.
- 3- Publicity :- Promotional activities and advertisement increase the exposure about the commodity to the buyer. So, the advertisement may increased the demand and it effects the demand in positive manner.
- 4- Prime Population.
- 5- Types of related goods :-
  - (i) Complementary goods - Complimentary goods are those goods which are demanded the influence of other demand of other product.



- ii) Substitute goods :- These are the goods which give same and equal level satisfaction in case of absence of previous product.



- 6- Purchasing power of consumer (income) :- Based upon the income the commodity can be divided into three categories.

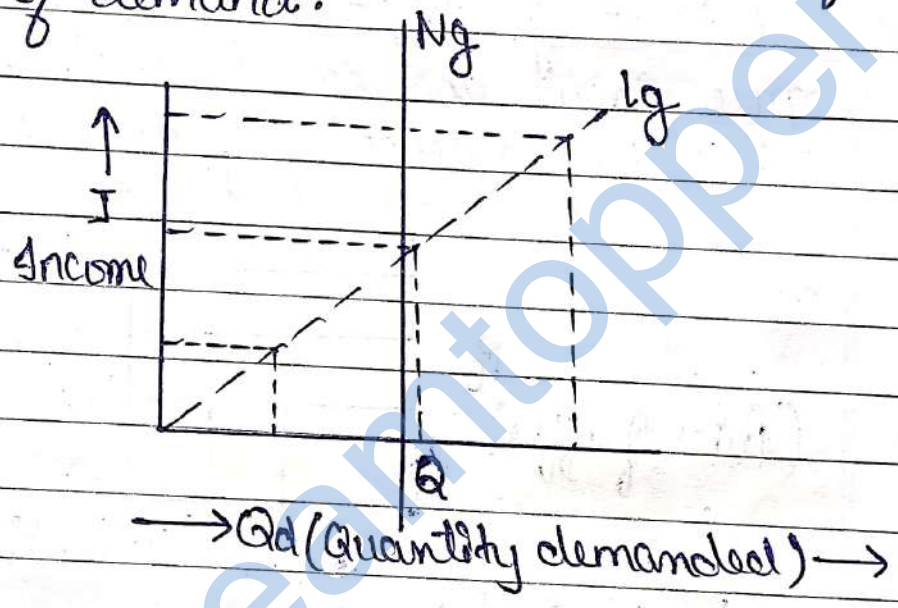
- i) Inferior goods -

These goods are less demanded in higher income group.

- ii) Normal goods or necessary goods -

These are the goods which are responsive to the price or income.

(iii) High priced or luxurious goods -  
These are the goods which are demanded  
in respect of their related price.  
It means their prices do not affect  
the quantity demanded of such products.  
It is also an exceptional case for the  
law of demand.

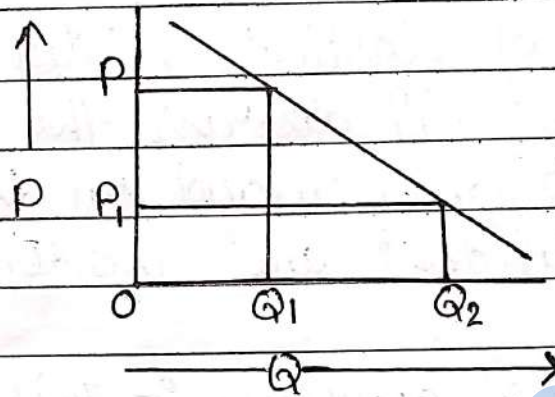


7- other -  
a) fashion

(ii) During the emergency situations like -  
war, flood, situation of law and order  
or legal condition of the country.

\* The law of demand :- The law of demand  
expresses the functional relationship  
between price of a commodity and its  
quantity demanded, price and  
quantity demanded are inversely

related to each other. According to law of demand, the quantity demanded varies inversely with the price.



At 0 price the quantity will be infinite in demand and the quantity demanded is 0 then the price shall follow the same pattern.

Demand will never be negative. It means whether the demand is, or demand is not.

\* Demand ~~the~~ Schedule :- It is the tabulated form of demand curve which explains the inverse relation between commodity demanded and price.

	P	Q	
	0	$\infty$	
	10	2	
	8	4	
	6	6	
	4	8	

The law of demand only explains the relation between quantity and price. But nobody can assess the magnitude of change, which will be explained in terms of elasticity, later on. But very first we will discuss the explanation of law of demand on the basis of traditional and modern approaches-

- Traditional approach:- This is given by Sir Alfred Marshall. According to this approach the demand of a commodity is related with its utility and price.

a) The law of marginal diminishing utility - according to this law as a consumer has more of commodity, the utility derived from the successive unit then on decreases. A consumer will continue consuming a commodity until the  $M_u$  becomes equal to its price.

$$M_u = P_u$$

b) Change in number of consumer - low prices always attracts the consumers. So, at a higher prices consumer keep themselves away from the purchase

of higher quantity. If the price of a commodity increases then as a matter of adjustment and satisfaction the people leaves the earlier product and join the next suitable lower price product.

c) Diverse use of commodity.

a) The substitution effect:-

Price rise of a commodity allows the next possible substitute for creating increased demand. Substitutes are the product which gives the same satisfaction which was expected from the previous one.

When the prices of a commodity rises the relative price of its substitute automatically decreases.

b) Income effect - any change in the price of a commodity affects the purchasing power or real income of a household. The increase in general market prices brings a decrease in real income, whereas low prices in market give an increment to the real income.

★ Limitations / Exceptions of law of demand -

- 1- Wind fall gains.
- 2- Individual logic.
- 3- Price stimulation.
- 4- Product related to prestige
- 5- High price products.
- 6- Other
- 7- Inferior goods.
- 8- Fashion and dynamic needs of consumer.

★ Elasticity of demand :-

Elasticity of demand is the degree of responsiveness of the quantity demanded to a given change in its any of determinants.

- 1- Elasticity of demand helps to the firms in the course of forecasting about the demand of commodity.
- 2- Elasticity of demand quantifies the effect of various determinants over the demand.

★ Types of demand elasticity :-

- 1- The price elasticity :-  
The degree of responsiveness of quantity demanded to a change in its price (otherwise things will remain constant)



will be known as the price elasticity.

The price elasticity of demand is generally defined as the responsiveness of demand for a commodity to the changes in its price.

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

$$P_1 \quad Q_1 \quad - \quad \Delta Q$$

$$P_2 \quad Q_2 \quad - \quad \Delta P$$

$$\frac{Q_1 - Q_2 \times 100}{Q_1}, \quad \frac{P_1 - P_2}{P_1} \times 100$$

$$\Delta Q = Q_1 - Q_2$$

$$\Delta P = P_1 - P_2$$

$$e_p = \frac{\Delta Q \cdot P}{\Delta P \cdot Q}$$

A. The cross elasticity :-

The responsiveness of demand to change in the price of relative commodity is called cross elasticity of demand.

$$P_c = \frac{\Delta Q_x \cdot P_y}{\Delta P_y \cdot Q_x}$$

★ The income elasticity :-

The degree of responsiveness of demand for a commodity to a change in the income will be referred as the income elasticity.

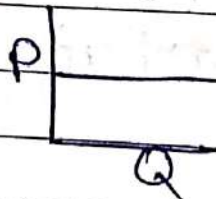
$$e_I = \frac{\Delta Q \times Y}{\Delta Y \cdot Q}$$

★ Different kinds of elasticity :-

1- Unitary elasticity :- When the demand of the commodity changes with the same proportion as the unitary elasticity.

When the % change in the quantity demanded becomes equal to the % change in the price.

2- Perfect elasticity :- There is an infinite change in the quantity demanded without any change in price.



3- Perfect inelastic :- When the demand of a good thus not change with its price.



- 4- Relative elasticity :- When the change in quantity is more than its price.
- 5- Relative inelastic :- When demand change is less than the change in price.

★ Demand forecasting :-  
Demand forecasting is the analysis of demand for a particular product after a careful study of various variables and patterns. Demand forecasting refers to prediction about the future sale of a commodity for which the plans are pending.

- ★ Forecasting further can be divided into two broad categories :-
- 1)- Qualitative
  - 2)- Quantitative

★ Process of forecasting :-  
1- Nature of product :-  
The forecasting depends upon the nature of product because the utility of product may be seasonal, periodic and intermediate. So, the product may have different-different forecasting horizons.

Again the physical status of product, appearance of product like solid, gas and liquid. Shall also deciding the forecasting of product.

2- Objective of forecasting :-

The clear cut vision of forecasting should be there in terms of various forecasting heads. Like forecasting in respect of sales quality, frequency of advertisement, future assessment of man power and machine etc.

3- Selection of forecasting technique.

4- Accuracy of forecasting.

\* Techniques of forecasting :-

1- Brain storming technique :- This is the oldest and cheap technique of forecasting where suitably 10-12 expert interact with each other for finding out the solution to a given problem. The averagely agreed solution shall be applied for the forecasting.

Limitations :-

There must be a mediator or anchor to keep the discussion on track as well as for recording the summary.

2-

### Delphi Technique's-

It is the rectified mode of Brain Storming where the experts share their views without the interference or impression of another experts.

Here we can present the problems in terms of email, questionnaire, telephonic information, web pages, forms etc and the experts are supposed to react over the issues in a limited manner. This technique increases the validity and authenticity of forecasting.

### Complete enumeration:- (covering up)

Complete enumeration refers to a technique which analyses the all elements available in universe. And the forecasting will take place after the collection of 100% data or response from total elements.

### Sales force opinion:-

Sales force opinion registers the views and suggestions from the sales personnel who represent their respective areas.

Every sales fellow is supposed to have the information from the area to whom he is associated. And after collecting the data we will send

Select the idea or option which comes with the majority of support.

End use method :-

Consumer is the actual follow for use of the commodity. So, the responses of the consumer are more valuable or workable. And uses survey we deliberately we analyse opinion of consumer.

Survey method :-

The simplest form of survey is the sample survey where we draw a reasonable sample size in order to represent the entire population in further. And the responses recorded from the sample shall be applied to the rest of population.

\* Limitations of Sample Survey :-

- 1- Anchor or correspondent.
- 2- Sample Size.
- 3- Market experiment :-

It is the special kind of survey technique where we conduct the survey in controlled market situations. In this technique we stimulate the customers experience in a virtual real condition.

and the personal experience shall be recorded for the further development forecasting.

★ Limitations of market experiment:-

- 1- Time duration.
- 2- Selection of market.

★ Economic Indicators :-

1- Leading Indicators :-

These are the indicators which actually comments before the happening of activity.  
For example:- Stop price rise due to ~~and~~ anticipation of taxes.

2- Parallel Indicators or co-incident indicators :-  
These are the indicators which moves along with the general economic activity.  
For example:- The Bank rates falls down due to the low demand of lower in the economic.

3- Lagging Indicator.

4- Econometric technique :-

It is the statistical tool for analysing big data and finding out their mean values.

● Limitations of ~~the~~ statistical technique :-

- 1- Application of thorough study of data.
- 2- Reliability of data.
- 3- Use of computer techniques for the bulky data.

### \* Importance of forecasting :-

- 1- To forecast the future force of action,
- 2- To anticipate the potential customer,
- 3- To channelize the managerial efforts in a common goal oriented path.
- 4- Forecasting is useful for demand assessment.
- 5- Demand forecasting is the root base for production plans.
- 6- Forecasting is a managerial decision.

### \* Cost :-

Cost will be expenses incurred over the production we can classify the cost on the following basis :-

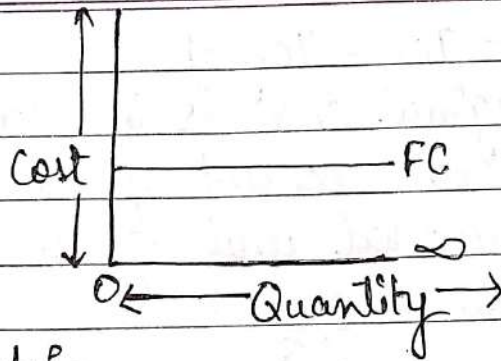
- 1- Accounting cost
- 2- Economic cost
- 3- Qualitative Cost
- 4- Quantitative cost

### \* Different types of cost :-

#### 1- Fixed cost :-

Fixed cost are those expenses which are mandatory to employee and remain unchanged with respect to quantity produce. So, these are the constant cost. Say, for example :- If a plant producing nothing there after also the plant will absorb the cost amount to fixed cost.

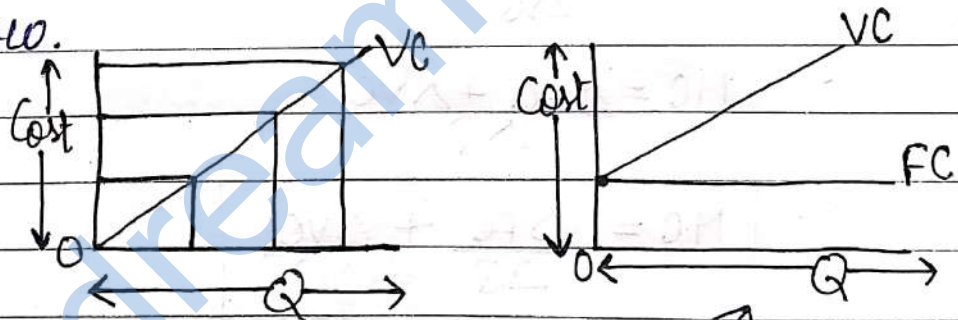




2)- Variable cost :-

This cost behaves quantity to the fixed cost. variable cost increases as the production volume grows up. It means variable cost is directly proportional to the quantity.

When there is no production in the firm in that case the variable cost will be zero.



$$TC = FC + VC$$

3)- Total cost :-

Total cost is the combination of variable cost and fixed cost. It means after adding up the FC and VC we can get the TC.

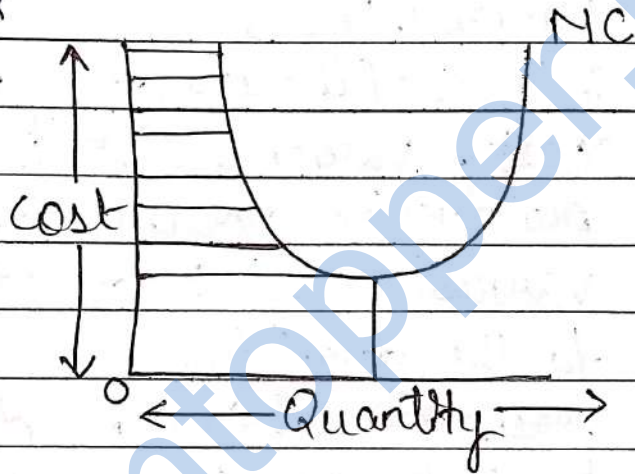
4)- Marginal Cost :-

This cost is different between the total cost of two successive units.

$$MC = TC_n - TC_{n-1}$$

marginal cost is the addition of the total cost on account of producing one additional unit of the product.

$$MC = \frac{\Delta TC}{\Delta Q}$$



$$MC = \frac{\Delta TC}{\Delta Q}$$

$$MC = \frac{\Delta FC + \Delta VC}{\Delta Q}$$

$MC = \frac{\Delta FC + \Delta VC}{\Delta Q}$
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5° Average cost :-

average cost is the division of total cost by the quantity produced. It is also a kind of rate which indicates the costness over individual product.

$AC = \frac{TC}{Q}$
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5- Opportunity cost:-

"Opportunity cost is the subjective value foregone in order to select the best course of action or alternative from among the available."

"Opportunity cost denotes to the sacrifice cost. Opportunity cost is the amount of subjective value foregone in choosing one alternative over the next best alternatives."

6- The Real cost:- (Actual cost)

It is the book cost which is subject to record like cash payments and fixed expenditure.

7- Out of pocket cost:-

The item of expenditure which involves cash payment, transfers are known as the out of pocket cost.

8- Book cost:-

All the recordable costs are the book cost. These are the tangible cost which are taking into account on final balance sheet making and making of profit or loss account.

9- Short run costs:-

These are the combination of cost where certain costs are fixed and some are variable.

10- Long run cost :-

These are the costs which are reasonably variable in nature.

11- Sunk cost :-

These are the cost which cannot be increased or decreased by varying the rate of output.

12- Private and social cost :-

Private costs are those which are actually incurred or provided for by an individual firm on the purchase of goods and services from the market.

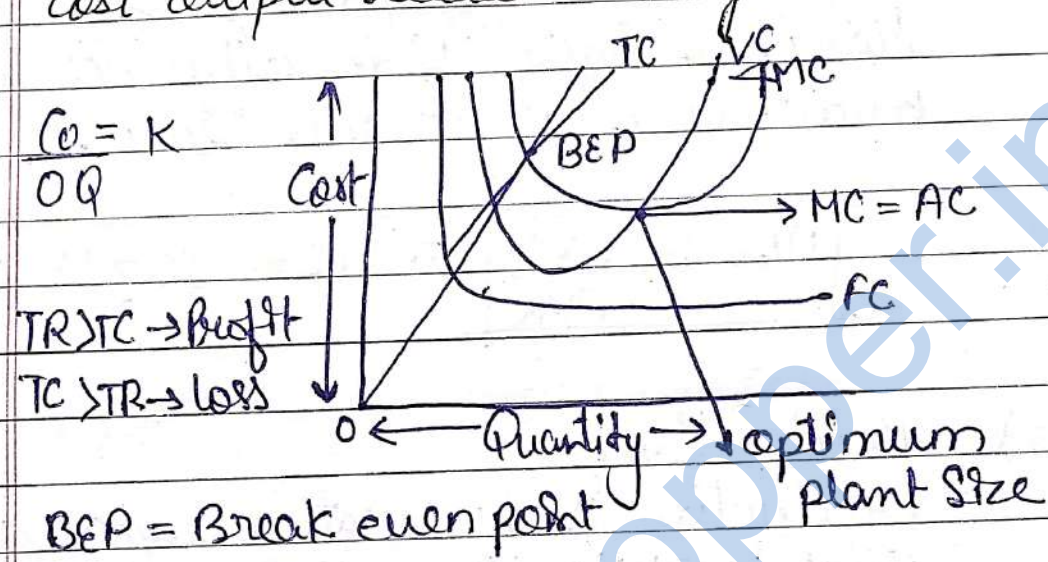
Social cost refers to the total cost borne by the society due to production of commodity.

13- Goodwill cost :-

It is the intangible type of cost where a company makes the expenses for their brand image.

★ Cost behaviour under the short run and long run :-

1- Cost output relation during short run :-



2- Cost output relation in long run :-

Multiple product of cost :-  
 Cost is -the one of the next important analysis for the business decision making.

$$Pv \text{ ratio} = \frac{S-V}{S} \times 100$$

Marginal ~~cost~~ Safety :-

Marginal Safety is the difference between Break even point and sales.

$$ms = \frac{PXS}{PVR} \quad \text{or} \quad ms = \frac{S_a - S_b}{S_a} \times 100$$

★ Production :-

Production is the creative human activity which satisfies the unlimited human wants with the help of limited resources.

★ Components of production :-

1- Creativity :-

Creativity refers to the creation of product and services by converting resources or input into final products.

2- Satisfaction :-

The product produce should be competent enough for satisfying the human wants. otherwise the production will only makes the resources ~~was~~ waste.

3- Limited resources :- As we know that any production activity consumes the resources so every attempt to

production makes the resources decrease,

- 4- Human Interference :- Without the human interference or involvement the resources can't be converted into final products. The managerial decision are also the types of human involvement. after considering the customer need, purchasing habit, demand and supply.

\* Features of Economic Production :-

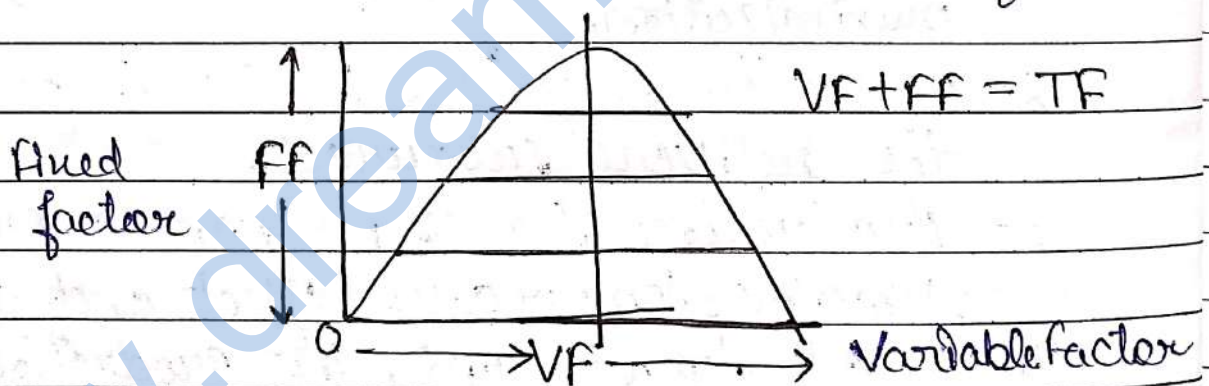
- 1- Production is a constant tool of profit maximization.
- 2- Production requires the cost to purchase the relevant resources.
- 3- Production leaves permanent or sometimes temporary effect and change.
- 4- Profit depends upon the production cost. Production uses known renewable and non-renewable resources.
- 6- Production is a function of Input Quantity.
- 7- The production factors can be divided into fixed and variable factors.

\* Fixed factors :- All the inputs whose quantity remains the same irrespective

to the level of output will be known as fixed factors. In other words we can say that for a shorter period those factors which are not subjected to amendment with the change of output.

★ Variable factor :-

These are the production factors which are subject to change with the volume of output between the production volume and a direct relation exist. And increase in level of output will bring the relation increase in all variable factors



★ Production under short run :-

During this time some factors will remain fixed and other will remain variable. The level of production can be increased by increasing variable factors.

★ Production under long run :-

During this period no factors remain fixed and all factors will be treated as variable.



**NOTES** - Level of Production V/s scale of Production :-  
In the short run if we change the production by adjusting fixed and variable factors. So, it means that we are planning for level of production. This only is possible during the short run of business.  
The scale of production refers to a situation where no factor is fixed and the level of production can be raised upto any limit by multiplying the no. of factors.

★ The concept of total product :-  
Total product is the absolute volume produced by a firm in a specified time period. The total product is also known as the total produced by a firm.

Features :-

- 1- It is an absolute volume.
- 2- It is easy to convert in various physical units.
- 3- Total product can be raised by the means of increasing variable factor.
- 4- Total product can be calculated in different time horizon like short run and long run.

Average product -

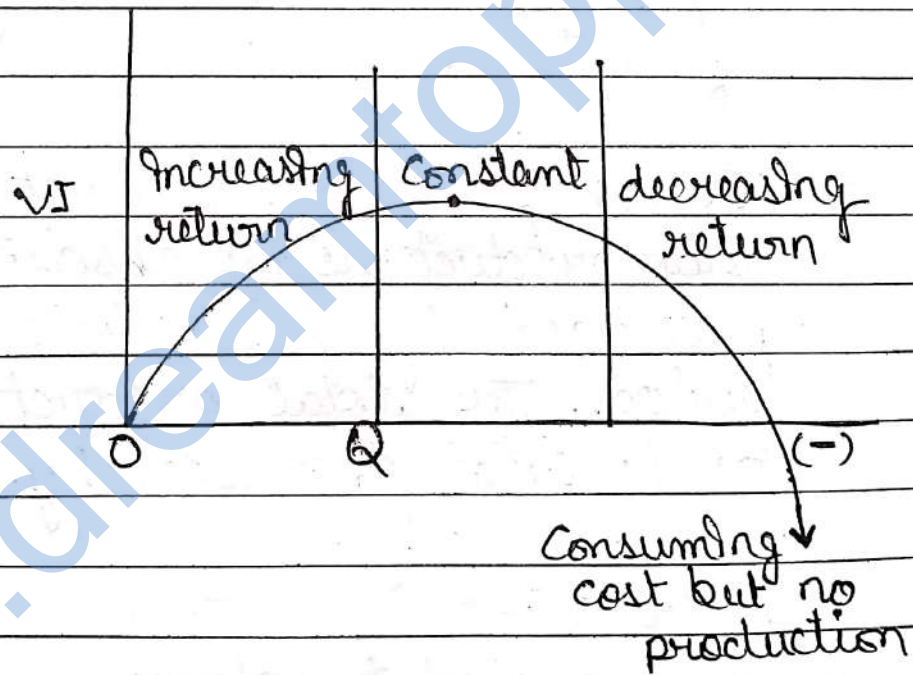
It can be derived by dividing total product to variable inputs used.

$$AP = \frac{T.P}{V.I. \text{ or factors.}}$$

V.I. or factors.

Marginal product -

The rate at which the total product increases is known as marginal product.



According to the production and its concept the quantity produced is the function of factor.

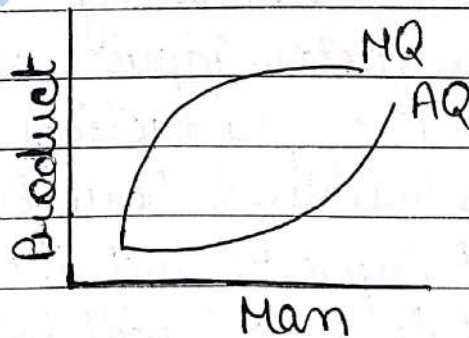
$$Q = F(f_1, \dots, f_n)$$

Production function can be explained by the two major principles -

1). The law of various variable proportion or the law of return - When a firm produces the goods in a short run manner then it is known as the law of variable proportion. This law is explained by Alfred Marshall. So it is also known as Marshallian approach.

Keeping the supply of fixed inputs as constants. If the supply of variable inputs is raised then the total product in the beginning increases at increasing rate and finally at a diminishing rate.

a) The law of increasing returns - When an increase in the quantity of the variable factors, average and marginal product show a tendency to rise.

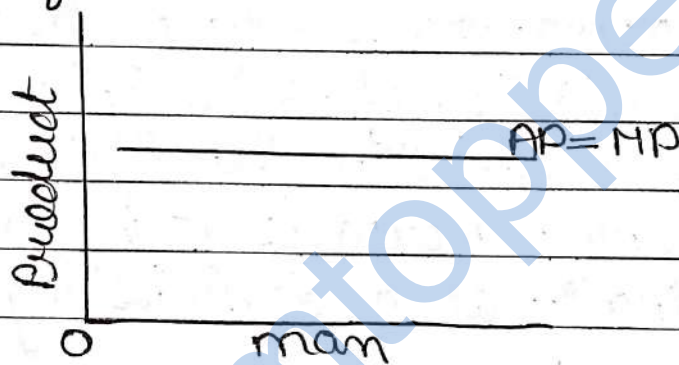


Explanation - This behaviour is caused by the following reason -

1. Indivisibility of factors - Individual products or factors are indivisible and they only can be utilized by full employment.

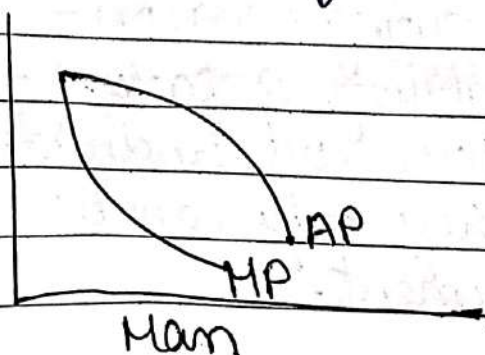
2- Specialisation - In the initial face of production the people are less exposed to the working culture and technique but as soon as they grow older, they gain more efficiency.

(b) The law of constant variable or return -



Cause of constant return - Every resources come with certain and further utilization of resource of factor is not possible.

(c) The law of diminishing returns - In this face the factor input cannot increase the level of production because all the factors involved have been utilized to their full of capacity and the increase in the variable input will bring the decrease in total product only.



Causes of this behaviour -

- 1- The resources because become useless beyond the limit.
- 2- Lack of perfect substitutability between among the factors.

The return to scale - when a firm changes the quantity of both fixed and variable factors in the long run it changes its scale of production. The law of return to scale can be explained.

under the 3 steps -

1. Increasing return to scale.
2. Constant return to scale.
3. Diminishing return to scale.

★ Schedule of return to scale -

% I/P	% O/P	Case / Step
10%	20%	Increasing
10%	10%	Constant
10%	8%	Diminishing

★ Iso-quant curve :-

Iso means the equal product and quant means equal curves. It comes to mean that the curve derived the equal products.

Iso-quant curves are useful to explain the returns to scale concept. And Iso-quant curve joins all those combination of factors inputs which join yield the same level of outputs.

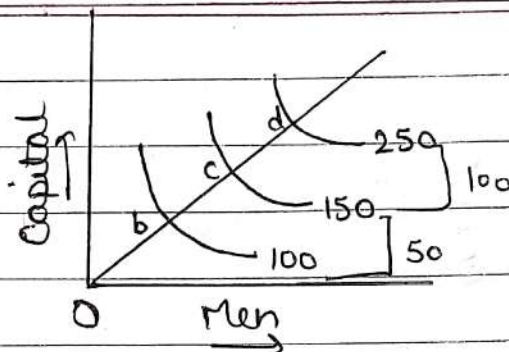
In other words all the combinations of two inputs providing the same level of output on same iso-quant curve.

Suppose a firm starts from an initial level of inputs and output and individual increases all the inputs proportionally there are three technical possibilities.

- 1- If output increases more than proportionally, we have increasing return to scale.
- 2- If output increases same as the proportionally, we have constant return to scale.
- 3- If output increases less than the proportionally, we have diminishing return to scale.

Iso-quant curves shows the essential path which combines the different inter-mediate sections.

- 1- Increasing returns to scale -



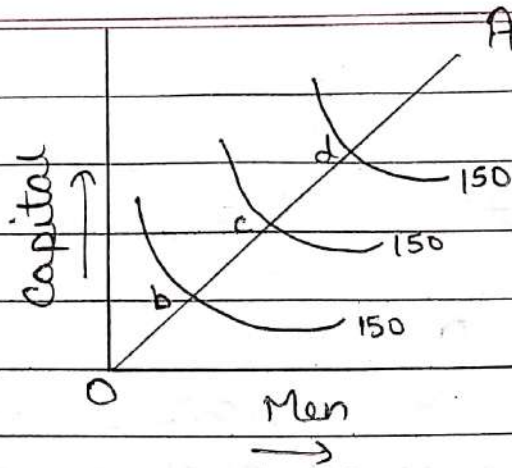
Expansion path shows a continuous growth of total product over a longer period which is further dividable into different-  
-2 sections or lines.

It occurs when the increase in input brings the increase rate in output. In other words, we can say that a longer proportion of output increases than the proportion involved of input.

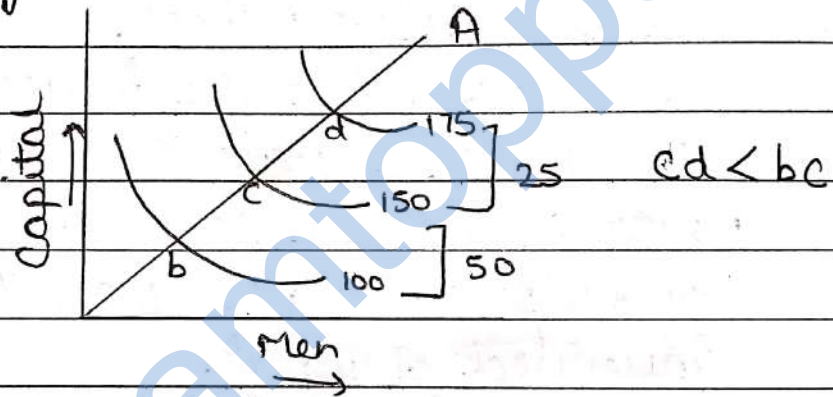
Cause of increasing return -

- 1- Indivisibility of factors - The factors cannot be divided only can be optimized by using different combinations.
- 2- Mass production - It reduces the wastage which provides ultimate effect on high productivity.
- 3- Dimensional relations -

Constant returns to scale:-



Diminishing return to scale -



Causes of diminishing return -

- 1- Centralization vs Decentralization -
- 2- Exhausting nature of resources - Every natural resources comes with its limitation and beyond that limit the resource becomes useless or exhaust.

\* Break-even-point :-

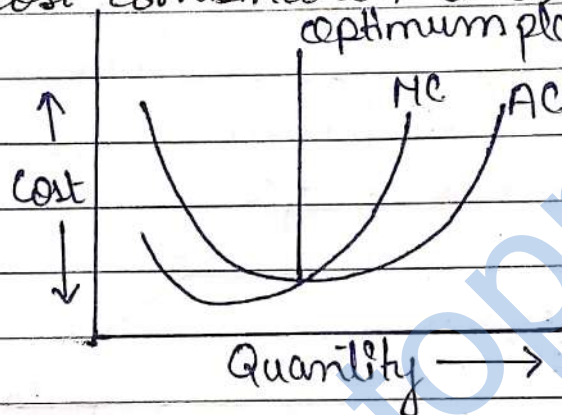
It is a situation where total cost equates total revenue and the firm registers a condition of no profit and no loss. B.E.P. is useful in the input-output decision.

It may be define as that organisation



of business enterprise which in given circumstances of technology and market for its product should be produced at least cost combination.

Least cost combination (LCC) :- optimum plant size



5 Factors of Robinson :-

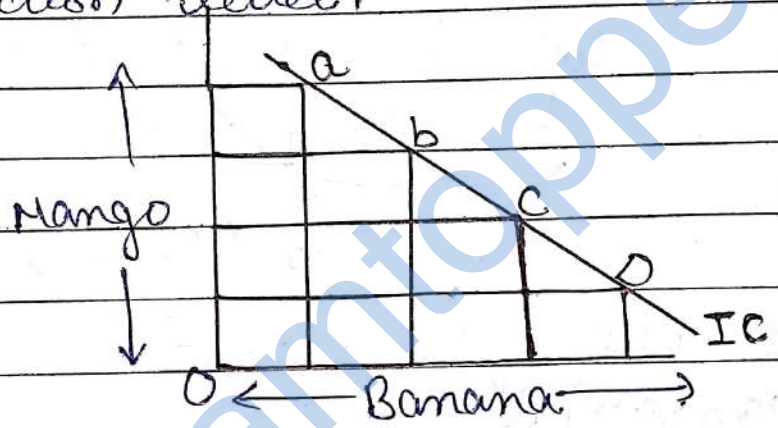
- 1- Managerial
- 2- Technology
- 3- Employee / Manpower
- 4- Product :- Product is the important factor for any firm because it deals with the value and satisfaction to the consumers. The ultimate result of the product is the maintenance of higher satisfaction level of consumer in market.
- 5- Competition.

\* Indifference curve -

Indifference curves are the representation of different combinations of goods which gives

same satisfaction to the consumer.

Generally consumer does not follow the law of demand exactly because every product or service come with close substitute, so, the consumer makes an indifference b/w the options for ~~product~~ maintaining his satisfaction level.



★ Properties of Indifference curve :-

- Indifference curve always slopes down from left to right.
- Indifference curve are always convex to the origin.
- Higher Indifference curve represents higher level.
- Indifference curve does not intersect each other.

★ Limitations of Indifference curve approach:  
1- There should be no change in taste and preference.

- 2- Logical thinking:- One customer must derive the maximum satisfaction from the goods.
- 3- Ordinal utility.
- 4- Transitivity.
- 5- Consistent choice.