

Introduction:-

Economics - Greek - Oikonomia - household management

In 19th Century economics - political Economy.

In 1776 Adam Smith published book entitled "An Inquiry into the Nature and Causes of the Wealth of Nations".

problem of making CHOICE:-

① Human wants are unlimited

② The means to satisfy unlimited wants are relatively scarce and these scarce resources have alternative uses.

Economics is how to use relative scarce resources to satisfy unlimited human wants. It deals not only with how a country allocates its scarce productive resources but also with increase in the productive capacity of resources and with the reasons which led to sharp fluctuation in the use of resources.

Business Economics is also referred to as Managerial Economics.

Every business involves decision-making as survival and success depends on sound decisions.

* Decision making means

- Ⓐ Evaluating various course of action
- Ⓑ making rational judgment on the basis of available information
- Ⓒ selecting i.e. making choice of a suitable alternative by decision maker.

* Business Economics is a sub-branch of Economics which aims at scientific application of Economic knowledge, logic, theories and tools to take rational business decision.

Thus it is an Applied Economics.

* Nature of Business Economics:-

Ⓐ micro - Economics - "Small part"

Ⓑ macro - Economics.

^{* How individual units take decision regarding scarce resources.}
Micro Economics study the behaviour of small part or a small component of different individuals and organisation of a national Economy. It examines how individual units take decision about rational allocation of their scarce resources.

Ⓐ Theory of product pricing

Ⓑ Theory of Consumer behaviour

Ⓒ Theory of Factory pricing.

Ⓓ The Economic conditions of a selection of people.

Ⓔ Behaviour of firms

Ⓕ Location of industry

macro Economics deals with large economic activity. It study the economic system of a country as a whole. It study's of the large aggregate like total Employment, the general price level, total output, total consumption, total saving and total investments. It also analysis how these aggregates change over time.

- A National income and national output
- B The General price level & interest rates
- C Balance of Trade & Balance of payment
- D External value of Currency i.e Exchange Rate
- E Overall level of saving and investments
ie:- Capital formation
- F The level of employment and rate of Economic growth.

* It is Applied theory that fill the gap between Economic Theory and business practice.

Nature:-

- 1 Business Economics is a Science.
- 2 Based on Micro-Economics.
- 3 Incorporates elements of Macro analysis
- 4 Business Economics is an Art.
- 5 Use of theory of markets & private

② Pragmatic Approach. -- practical approach.

③ Inter-disciplinary in nature.

④ Normative in Nature.

* A positive science or pure science deals with the things as they are and their cause and effects only. It states "what is"?

* It is Descriptive in nature. It does not pass any moral or value judgement.

* A normative science deals with "what ought to be" or "what should be". It passes value judgments and states what is right and what is wrong.

It is prescriptive in nature as it offers suggestions to solve problems. Normative science is more practical, realistic and useful science.

Scope:-

Economic theories can be directly applied to 2 types of business issues namely:-

1. Micro Economics is applied to internal issues of a firm or operational

2. Macro Economics is applied to environment or external issues on which firm has no control.

Basic problems of an economy and Role of price mechanism:-

The central problems relating to allocation of Resources are:-

- ① What to produce and how much to produce?
- ② How to produce? ^{capital} intensive or ^{labour} intensive.
- ③ For whom to produce?
- ④ What provision should be made for Economic growth.

Economic System:-

It comprises the totality of forms through which the day to day economic process is at work. There are 3 types of Economic system Capitalism, Socialism & mixed.

Law of Demand And Elasticity of Demand:-

- * Desire is only a wish to have any thing.
- * In Economic demand means more than mere desire.
- * Demand in Economics means an effective desire for Commodity i.e.:- desire backed by the "ability to pay" and "willingness to pay" for it, at different price levels during a period of time.

Determinants of Demand :-

The various factors on which the demand for a product / commodity depends are :-

(a) Price of the Commodity :- ~~inverse~~

(b) Price of the related commodities :-

* Substitutes or Competitive goods - positive

* Complementary goods - Inverse.

(c) Income of the Consumers :-

* Others things being equal, generally the quantity demanded of a Commodity bears Direct relationship to the income of Consumers.

* Necessaries :- Initially with an increase in the income, the demand also rise to some extent. Beyond that limit, an increase in income will leave demand unaffected.

* Comforts and luxuries :- Direct relation
Income \uparrow — Demand \uparrow

* Inferior goods :- Inverse relationship
eg:- (grains, rough cloth, Skimmed milk, etc)
Income \uparrow - Demand \downarrow

(d) Tastes & preferences of the Consumers :-

* Demand of certain goods is determined by "Bandwagon effect" or "demonstration

goods because others (Film stars) have it.

It may also undergo a change when TSP consumers discover that consumption of a good increases his prestige. Gold, etc.

A good loses its prestige when it becomes a commonly used good. This is called "snob effect".

Status seeking rich people buy highly priced goods only. This form of "Conspicuous Consumption" or "ostentatious Consumption" is called "Veblen Effect".

Other factors:-

- * Size and composition of population.
- * The level of national income and its distribution.
- * Sociological factors.
- * Weather conditions.
- * Advertisement.
- * Government policies.
- * Expectation about future prices.
- * Trade conditions.
- * Consumer-credit facilities and interest rates.

* Demand Function :-

The statement of functional relationship b/w demand for product & its determinants.

$$D_x = f(P_x, M, P_s; P_c, T, A).$$

* Law of Demand :-

It simply states that demand varies inversely to the changes in price, i.e. demand for a commodity expands when price falls and contracts when price rises.

Law Demand states that people will buy more at lower prices and buy less at higher prices other things remain the same.

* Demand Schedule is a table or chart which shows the different quantities of commodity demanded at different prices in given period of time.

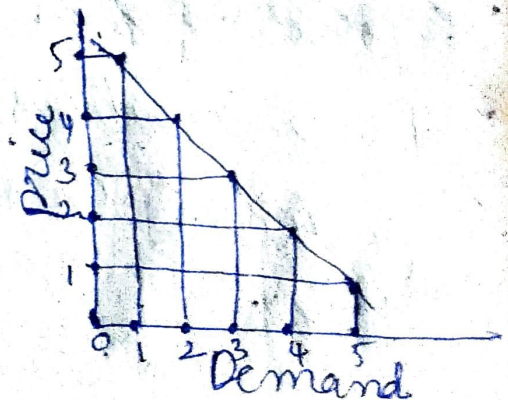
Price	Demand		Market
	A	B	
1	5	6	11
2	4	5	9
3	3	4	7
4	2	3	5
5	1	2	3

Market demand.

* Demand Curve is a graphical representation of demand schedule.

Price	Demand
1	5
2	4
3	3
4	2
5	1

Individual



Reason for Downward Sloping of Curve:-

1. Law of Diminishing marginal utility.
2. A Consumer goes on purchasing a Commodity till the marginal utility of the Commodity is greater than its p market price and stops when $MU = \text{price}$. When consumer is at Equilibrium.
3. Change in the number of Consumers.
4. Various uses of a Commodity.
5. Income effect:- pk - consumer purchase same quantity for less money or more quantity for same money.

* When price of a Commodity falls, the purchasing power of consumer increases.

* Thus he can purchase the same quantity with lesser money or he can get more quantity for the same money.

5. Substitution Effect:-

1. When price of a Commodity falls it becomes relatively cheaper than other Commodities.
2. As a result the Consumer would like to substitute it for other Commodity which have now become more expensive.

$$\text{Price Effect} = \text{Income Effect} + \text{Substitution Effect} \quad \text{--- Hicks \& Allen.}$$

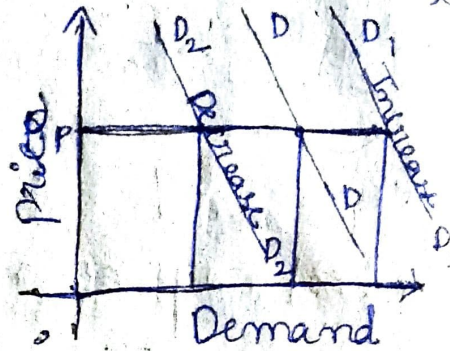
Exceptions of the Law of Demand :-

1. Giffen Goods :- Inferior Goods. Rice, Jowar, bajra, bread, etc.
When the price of such inferior goods falls, less quantity is purchased due to consumer's increased preference for superior goods with the rise in their "real income" (purchasing power) $P \downarrow - Q \downarrow$
2. Conspicuous Goods :- Diamonds, fancy cars.
 $P \uparrow - Q \uparrow$ - Veblen effect or prestige effect
3. Conspicuous necessities :- TV, refrigerator.
Such goods are used just to demonstrate that the person is not inferior to others in group.
4. Future change in price :- Fear
5. Irrational behaviour of Consumer
6. Ignorance effect
7. Consumer's illusion
8. Demand for necessities

Demand Curve For Above Exceptions is positively sloped :-

- * When $P \downarrow - Q \uparrow$ - Expansion of demand
- When $P \uparrow - Q \downarrow$ - Contraction of demand.

When there is change in demand due to change in factors other than price of the commodity is an increase or decrease in demand.



Elasticity of Demand :-

Is defined as the responsiveness of the quantity demanded of a commodity to the change in any one of the variable on which demand depends.

price elasticity of Demand :- Response of demand due to change in price.

The degree of responsiveness of quantity demanded of a commodity to change in its price, given the consumer's income, his tastes and preference prices of all other goods remain constant.

$$\%e_p = \frac{\% \text{ change in quantity demanded}}{\% \text{ change in price.}} \quad (06)$$

$$\frac{\frac{\text{Change in quantity}}{\text{original quantity}}}{\frac{\text{Change in price}}{\text{original price}}} \times 100.$$

(06)

$$e_p = \frac{\Delta Q}{\Delta P} \times P/Q.$$

* The value of elasticity coefficients will vary from 0 to ∞ .

1. perfectly Inelastic Demand :- ($E_p = 0$).

Change in price, Demand remain same.

2. perfectly elastic Demand :- ($E_p = \infty$).

No change or small change in price, demand remain of a commodity change or expands.

3. Unit Elastic Demand :- ($E_p = 1$).

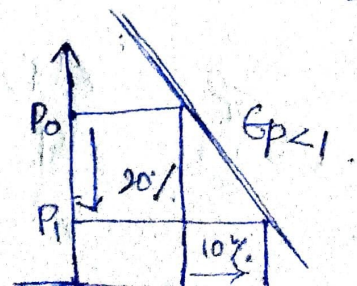
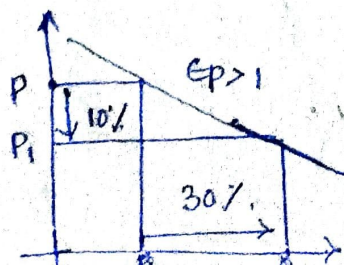
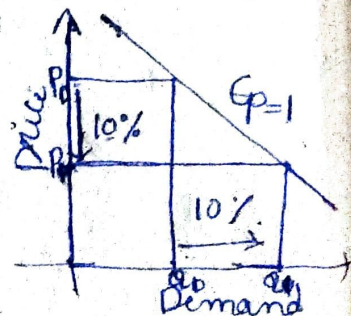
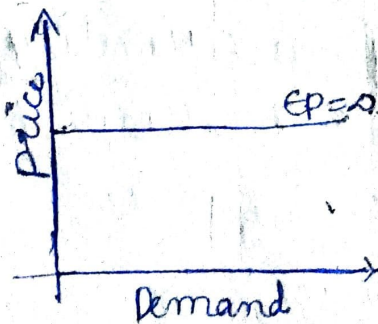
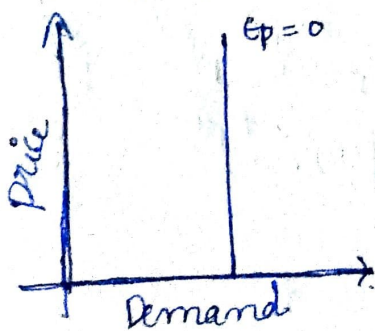
% change in price is equal to % change in Quantity Demand.

4. Relatively Elastic Demand :- ($E_p > 1$).

Small change in price leads to more than proportionate change in demand.

5. Relatively Inelastic Demand :- ($E_p < 1$).

big change in price leads to less than proportionate change in demand.



Measures of Price elasticity of Demand:

1. Percentage or Ratio or proportional method:

The coefficient of price elasticity of demand is measured by taking ratio of percentage change in demand to the percentage change in price.

$$E_p = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

$$\frac{\frac{Q_2 - Q_1}{Q_1}}{\frac{P_2 - P_1}{P_1}}$$

2. The total outlay or Expenditure method:

It refers to the total expenditure done by a consumer on the purchase of a commodity.

$$\text{Total outlay} = \text{price (P)} \times \text{Quantity (Q)}$$

Ⓐ When with the change in price, the Total outlay remains unchange, $E_p = 1$

Ⓑ When with the change in price, the Total outlay falls or with a ^{rise} in price, the TO rises then, $E_p > 1$.

Ⓒ When with the rise in price, the TO also rises and with a fall in price, the TO also falls then, $E_p < 1$.

price	Demand	Total outlay (P×Q)	Elasticity of Demand
5	20 units	100	$E_p = 1$ unitary
4	25 units	100	
5	20 units	100	$E_p > 1$ Elastic
4	30 units	120	
5	20 units	100	$E_p < 1$ Inelastic
4	22 units	88	

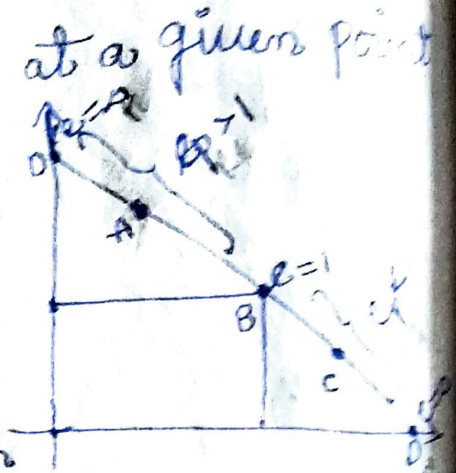
3. The point method or Geometric method:

* This method is useful when changes in price and quantity demanded are very small, so that they can be considered one and the same point only.

* We can measure elasticity at a given point on a demand curve.

$$E_p = \frac{\text{Lower segment of DC}}{\text{Upper segment of DC}}$$

$$E_p = \frac{\Delta q}{\Delta p} \times \frac{p}{q} \rightarrow \text{elasticity at a point on demand curve.}$$

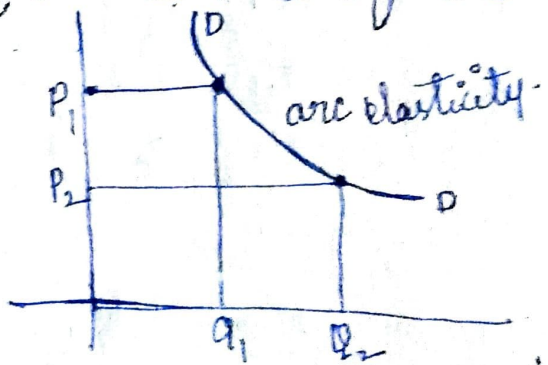


4. Arc method:-

* When there is a large change in the price we use Arc elasticity method to measure price elasticity of demand.

* The Arc elasticity is a measure of the "Average Elasticity"

$$E_p = \frac{q_1 - q_2}{q_1 + q_2} \times \frac{P_1 + P_2}{P_1 - P_2}$$



* Business manager:- The objective of a firm is profit maximization. If demand is elastic for the product, the manager can fix low price to maximize sales.

1. Government for determining the prices of goods and services provided by them. eg:- Transport, electricity, water, cooking gas etc. High Taxes are imposed on the goods having inelastic demand eg:- Cigarettes.

1. Demand Expands — Elastic $P \downarrow$
Demand Contracts — Inelastic $P \uparrow$.

1. Income elasticity of Demand:- Response of demand due to income

$$E_y = \frac{\% \text{ change in Quantity demanded}}{\% \text{ change in Income}}$$

$$E_y = \frac{\Delta Q}{\Delta Y} \times \frac{Y}{Q}$$

* Income elasticity of demand is positive — "normal or luxury goods" and the income elasticity of demand is — Negative — "Inferior goods". $I \uparrow - D \uparrow$
 $I \uparrow - D \downarrow$

1. Zero Income elasticity:- ($I \uparrow - D \rightarrow$)

Increase in income ~~do~~ not at all leads to any increase in demand of commodity.

* Demand for commodity is completely Inelastic or $E_y = 0$. eg:- Salt, match box, etc.

2. Negative Income elasticity:- ($I \uparrow - D \downarrow$)

Increase in income leads to fall in the quantity demanded for commodity or $E_y < 0$

eg:- Jauar, Bajra, etc. — Inferior Goods.

3. Unitary Income Elasticity:- (IU)

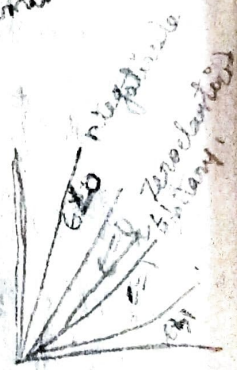
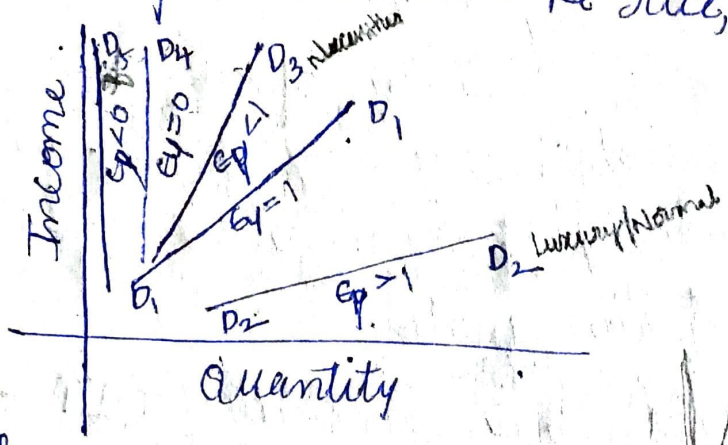
The proportion of Consumer's income Spent on the Commodity remains unchange before and after the increase in Income or $E_y = 1$

4. Income Elasticity Greater than unity:-

The Consumer Spend Greater % of his income on a Commodity when he become richer. $E_y > 1$. eg:- Luxurious like Cars, TV, etc.

5. Income elasticity less than unity :-

The Consumer Spend a smaller % of his income on a Commodity when he becomes richer. $E_y < 1$. eg. necessities like rice, wheat.



Cross Elasticity of Demand :-

$$E_c = \frac{\% \text{ Change in demand of } X}{\% \text{ Change in the price of } Y}$$

Substitute Goods :-

The cross elasticity of two substitute is always positive.

Cross elasticity = ∞ — perfect substitute

Cross elasticity $0 < E_c < \infty$ — Substitute

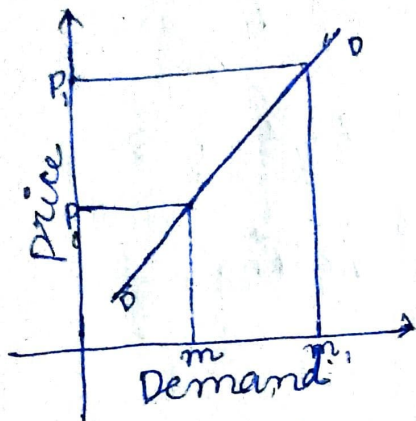
* Independent Goods :- ^{not related goods}

Cross elasticity = Zero (0). e.g. pastry &

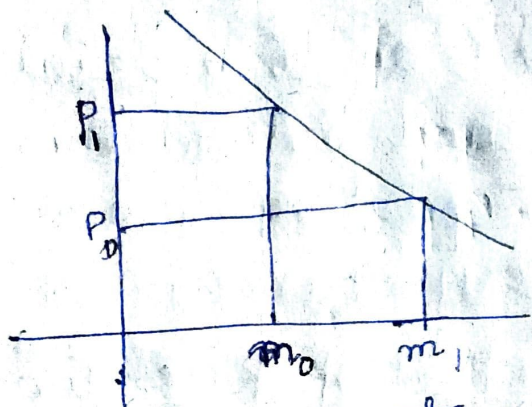
* Complementary Goods :-

Scooter

$P \uparrow - D \downarrow$ - Cross elasticity - negative.



Substitute Goods



Complementary Goods

Demand forecasting :-

It is an important function of manager as it reduces uncertainty of environment in which decisions are made. Further it helps in planning for future level of production.

Significance :-

1. production planning
2. Sales forecasting
3. Control of business
4. Inventory control.
5. Capital investment.
- 6.

Types of Forecasts:-

Macro-level forecasting:-

- (a) Industry-level forecasting. eg: Demand for 2 wheeler.
- (b) Firm-level forecasting. eg:- Demand for bappi.

Based on time period:-

- (a) Short-term demand forecasting :-
Operating forecast
- (b) Long-term demand forecasting :-

Method of Forecasting:-

Predict the future demand for a product.

- (a) Survey of Buyers intention :-
 - (a) Complete Enumeration
 - (b) Sample Survey
 - (c) End-use method or Input-output method.
- (b) Collective opinion method :- (Salesman)
Sales force opinion or grass root approach
- (c) Expert opinion method :- (Delphi method),
Views of Specialists / Experts & Consultants.
- (d) Statistical method :-
Superior, more scientific, reliable & free from subjectively.

 - (a) Trend projection method.
 - (b) Graphical method
 - (c) Fitting Trend Equation / least square method.
 - (d) Regression Analysis = $y = a + bx$.

5) Controller Experiments:-

It is called market experiment method.

6) Barometric method:-

Future can be predicted from certain events occurring in the present.

a) Coincidental indicators

b) leading indicator

c) lagging indicator

* Demand Distinctions:-

1. producer goods and Consumer Goods.
2. Durable goods and Non-Durable goods.
3. Derived demand and Autonomous demand
dependent factors of production Independent
4. Industry demand and Company demand.
5. Short-run demand & long Run Demand.

* Theory of Consumer Behaviour:-

All wish, desire, tastes & motives of human beings are called wants in Economics.

* Classification of wants:-

a) Necessaries:-

- i) Necessaries of existence. Eg:- Food, cloth, House
- ii) Necessaries of Efficiency - quality goods
- iii) Conventional Necessaries - because of social customs/traditions

b) Comforts :- make for a fuller & happy life

g) Luxuries :- Wants which are Superfluous & Expensive.

* Utility :-

* The Demand of a Commodity depends on the utility of that Commodity to a Consumer.

* The want Satisfying Capacity or } utility
Power of a Commodity

* Study of Consumer behaviour :- (Cardinal)

a) Marginal utility analysis - Alfred Marshall

b) Indifference Curve analysis - Hicks & Allen

* Marginal utility Analysis Assumption :-

a) Cardinal measurability of utility.

b) Constancy of Marginal utility of money.

c) Independent utilities.

d) Rationality.

* The law of Diminishing marginal utility :-

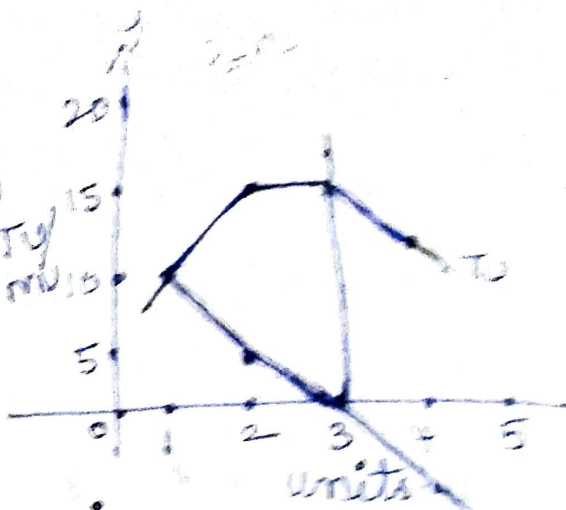
a) Human wants are unlimited.

b) Each separate human want is limited.

* The additional utility which he derives from an additional unit of commodity goes on falling.

The additional benefits which a person derives from a given increase in stock of a thing diminishes with every increase in the stock that he already has."

Units	TU	MU ($TU_n - TU_{n-1}$)
1	10	10
2	15	5
3	15	0
4	13	-2



TU is increasing MU is positive
 TU is highest MU is zero

Marginal utility becomes negative, TU starts falling

He keep on purchasing commodity ^{TU} $MU > P_x$
 Consumer is Equilibrium $MU_x = P_x$

$$MU_x = P_x \cdot MU_{\text{money}}$$

$$\frac{MU_x}{P_x} = MU_{\text{money}}$$

In reality a Consumer spends his money income to buy different commodities. In case of many commodities, Consumer equilibrium is explained with law of Equi-marginal utility.

$$\frac{MU_x}{P_x} = \frac{MU_y}{P_y} = MU_{\text{money}} \quad \text{or} \quad \frac{MU_x}{MU_y} = \frac{P_x}{P_y}$$

DMU Assumption:-

- ① Homogenous units.
- ② Continuous Consumption
- ③ Rationality
- ④ Cardinal measurement
- ⑤ Constancy of marginal utility of money.
- ⑥ The tastes of consumer should be constant

Exceptions:-

1. Hobbies and Rare Collection.
2. Abnormal person
3. Indivisible Goods.

Limitations:-

1. Cardinal measurement unrealistic.
2. unrealistic conditions.
3. Constant marginal utility of money
4. Inapplicable to indivisible Goods.
5. Single Commodity model.

Consumer Surplus:-

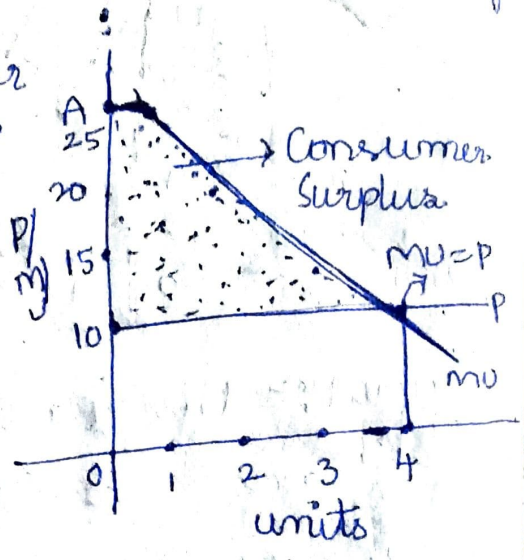
In our daily expenditure, we often find that the price we pay for a commodity is less than the satisfaction derived from it.

Consumption.

From the purchase of such commodities, we derive a good deal of extra satisfaction or surplus over and above the price that we pay for them — Consumer's Surplus.

Consumer's Surplus = What a consumer is ready to pay — what he actually pays

Units	MU	P	Consumer Surplus
1	25	10	15
2	20	10	10
3	15	10	5
4	10	10	0
<u>TU=70</u>		<u>Spent=40</u>	<u>30</u>



Indifference Curve:-

A curve which represents combination of two commodities that gives same level of satisfaction to the consumer.

Combinations	Burger	Sandwiches
A	1	10
B	2	6
C	3	3
D	4	2
E	2	12
F	3	8
G	4	5
H	5	4

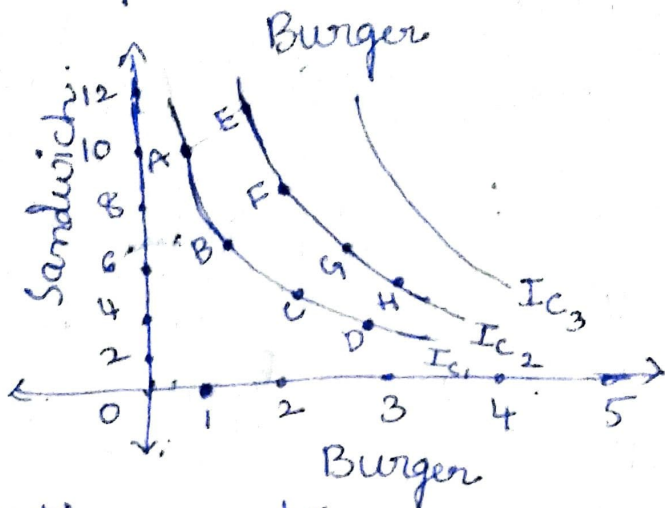
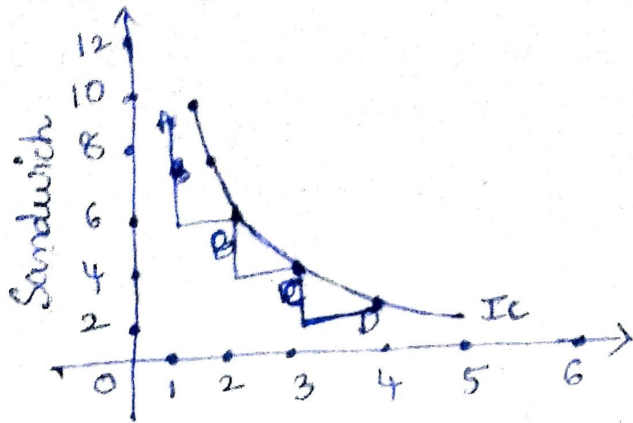


Figure 1:- The quantity of burger is measured on x-axis and quantity of sandwiches on y-axis. The various combinations A, B, C, D are plotted and on joining them, we get a curve known as indifference curve. All combinations lying on the indifference curve give the same of satisfaction to the consumer. Hence, the consumer is indifferent among them.

Indifference curve system is based on ordinal approach. According to which utility cannot be quantified but can only be compared.

* marginal rate of substitution:-

It may be defined as the rate at which a consumer will exchange successive units of one Good for another, till he gets ^{same} level of satisfaction of combination.

Combination	Good X	Good Y	marginal rate of Substitution = $\frac{\Delta Y}{\Delta X}$
A	1	10	—
B	2	6	4Y : 1X
C	3	4	2Y : 1X
D	4	3	1Y : 1X

* Above schedule shows the combinations of two goods X and Y. Suppose the consumer wants more X, to do so he must sacrifice some units of Y - in order to maintain same level of satisfaction.

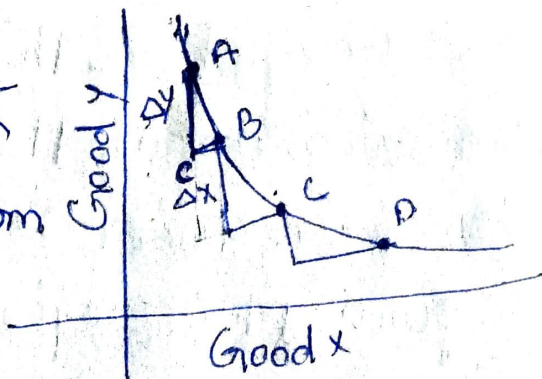
* This rate of sacrifice is technically called marginal rate of substitution.

$$MRS_{xy} = \frac{AC}{CB} = \frac{\Delta Y}{\Delta X}$$

(a) IC Slope downwards from left to right.

(b) IC Convex to origin.

(c) Higher IC Represents higher level of satisfaction.



- Ⓐ Indifference Curve Can't intersect each other
- Ⓑ Ic will not touch either x-axis or y-axis

* Budget line or price line or price opportunity line or expenditure line or Budget Constraint or Consumption possibility line. :-

* The budgetary position of the consumer can be graphically shown by Budget line. A budget line or price line shows maximum quantity of different combinations of two goods that the consumer can purchase with his given money income and given market prices of goods."

$$\text{Equation} = P_x \cdot X + P_y \cdot Y = M.$$

P_x - price of x good

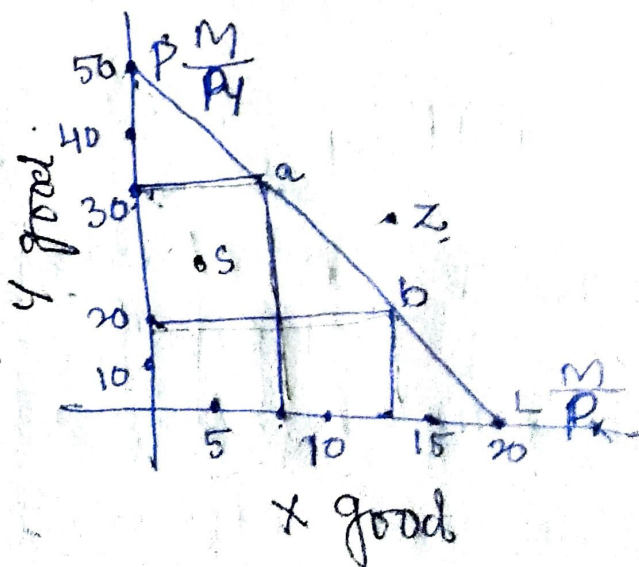
P_y - price of y good's price

X - quantity of x

Y - quantity of y

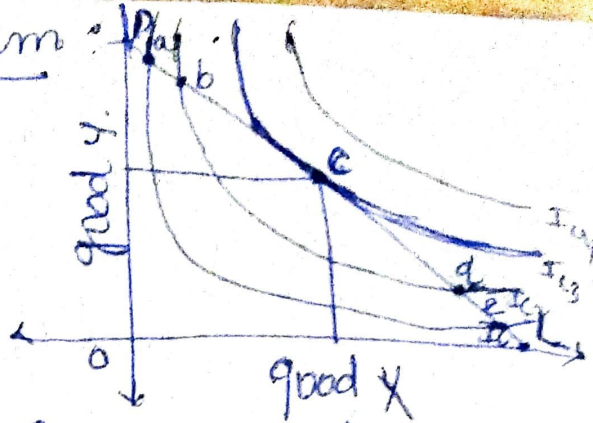
M = Total Money Income.

Consumer choose the combination of the goods in point 'S' region. It is region within the budget line."



Consumer Equilibrium

$$MRS_{xy} = \frac{MU_x}{MU_y}$$



Points a, b, d & e lie on lower ICs and so are not the points of equilibrium as the consumer can get more satisfaction with same amount of money.

Point 'c' is the point of equilibrium as it lies on budget line and also on highest possible indifference curve I_3 , giving maximum satisfaction.

Slope of IC = Slope of Budget line

$$MRS_{xy} = \frac{P_x}{P_y}$$

Supply:-

Supply of Commodity refers to quantity of Commodity offered for sale at a particular price during a given period of time.

"Ability & willingness to offer for sale at particular price during given period of time."

Determinants of Supply:-

$$S_x = f(P_x, P_r, P_f, T, O, \dots)$$

- ① P_x = price of Commodity x.
- ② P_r = price of related Commodities (Substitute, Complementary)
- ③ P_f - price of factors of production
- ④ T = Technology
- ⑤ O = Objective & Goals of the firm.
- ⑥ Government policy
- ⑦ Time.
- ⑧ n.o of firms.

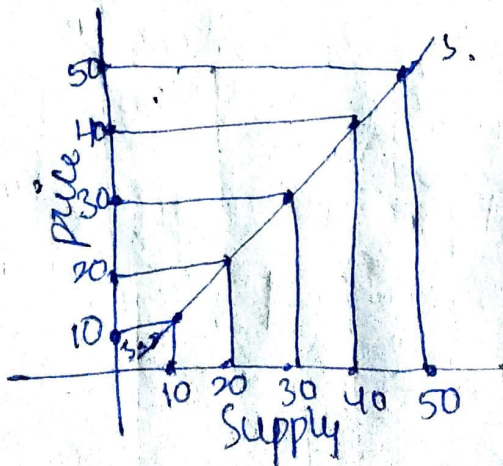
Law of Supply:-

Law of Supply states higher the price, the greater the quantity supplied or lower the price the smaller the quantity supplied. Other things remain constant. - Posley.

Direct relationship b/w price & supply.

Schedule

Price	Supply
10	20
20	30
30	40
40	50
50	60



- When price of a commodity rises, quantity supplied also rises — Expansion of Supply.
- When price of a commodity falls, quantity supplied also falls — Contraction of Supply.
- When there is a change in supply due to change in factors other than price of the commodity, it is called changes in supply. — Increase/Decrease of Supply.

• Elasticity of Supply :-

price elasticity of supply measures the degree of responsiveness of quantity supplied of a commodity to a change in its own price.

$$E_s = \frac{\% \text{ change in Quantity Supplied}}{\% \text{ change in price}}$$

$$E_s = \frac{\Delta Q}{Q} \div \frac{\Delta P}{P}$$

① perfectly inelastic supply :- ($E_s = 0$)

When a change in the price of a commodity has no effect on its quantity supplied.

② perfectly elastic supply :- ($E_s = \infty$)

When with no change in price or with very little change in price, the supply of a commodity expands or contracts.

3. Unitary Elasticity Supply : ($E_s = 1$).

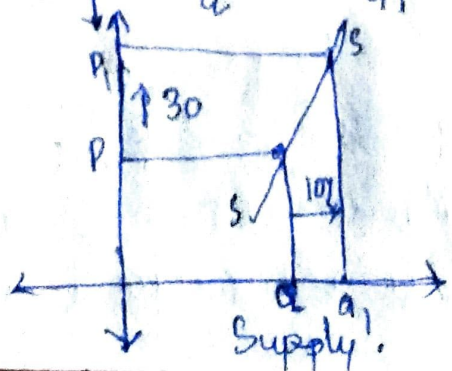
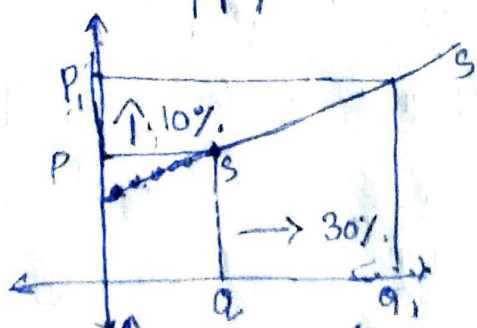
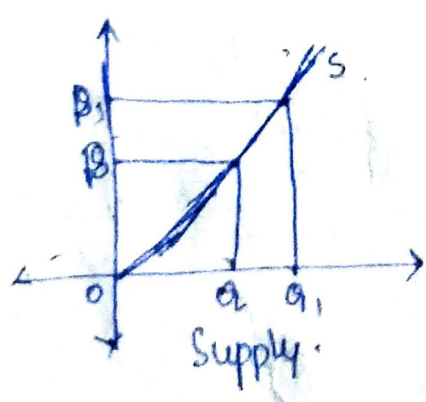
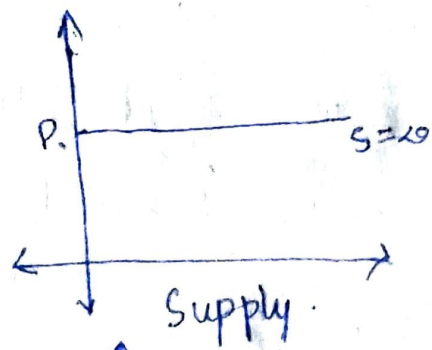
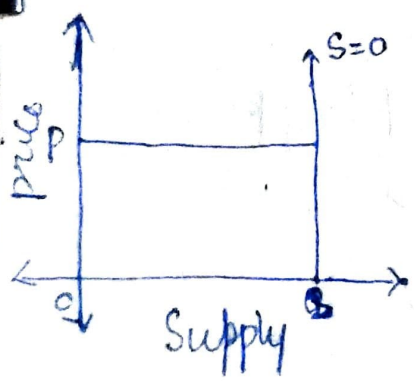
When % change in price is equal to % change in quantity supplied, then the supply is said to be elastic supply.

4. Relatively / more Elastic supply :- ($E_s > 1$)

When small change in price leads to big change in quantity supplied, then the supply is said to be relatively or more elastic.

5. Relatively inelastic supply :- ($E_s < 1$).

When big change in price leads to small change in quantity supplied, then supply is said to be relatively inelastic or less elastic.



Elasticity of supply measurement:

① The percentage or Ratio or proportional:-

$$E_s = \frac{\% \text{ change in supply}}{\% \text{ change in price}} \quad \text{or} \quad \frac{\Delta Q}{Q} \div \frac{\Delta P}{P}$$

② Point or Geometric method:-

i) Extend the Supply curve "S" towards the extension of X-axis so that it cuts X-axis at T.

ii) Draw a perpendicular from "R" cutting X-axis at "M".

iii) Take the ratio of intercepts MT & OM

$$E_s = \frac{MT}{OM} > 1 \quad (MT > OM) \quad \text{Greater than One}$$

$$E_s = \frac{MT}{OM} < 1 \quad (MT < OM) \quad \text{less than unity}$$

$$E_s = \frac{MT}{OM} = 1 \quad \text{Equal to unity.}$$

③ Arc elasticity Method:-

$$E_s = \frac{Q_1 - Q_2}{Q_1 + Q_2} \times \frac{P_1 + P_2}{P_1 - P_2}$$

Equilibrium price:-

The price at which seller of a goods are willing to sell the quantity which buyer wants to buy. The equilibrium price is the price at which demand & supply equal ~

• Theory of production :-

production means creation of economic utilities in the matter i.e.:- thing that already exists.

* utilities may be created or added in many ways:-

- ① Form utility :- Changing the form of raw materials into finished goods for man's use.
- ② place utility :- create transporting goods from one place to another.
- ③ Time utility :- creating, making things available when they are required.
- ④ Service utility :- created providing personal services to the customers.

Factors of production :-

1. Land
2. Labour
3. Capital
4. Entrepreneur.

Land

1. primary factor,
2. Free Gift of Nature.
3. Inelastic Supply.
4. Lacks Geographical Mobility.
5. passive factor
6. Heterogeneous
7. permanent.
8. Diminishing Returns.

Labour :-

1. Labour is inseparable from labourer.
2. Human factor
3. Highly perishable
4. The labourer sells his services & not himself.
5. Heterogeneous.
6. Mobile
7. Active factor.
8. Labour has sociological characteristics.
9. Supply curve of labour is backward sloping.
10. The supply of labour is inelastic in short run.

* Capital :-

1. Capital is man made
2. Capital is productive
3. Supply of Capital is elastic
4. All Capital is wealth.
5. Capital is a passive factor — It alone unable to produce
6. Capital is the most mobile factor.
7. Capital is durable.
8. Capital involves Social Cost.

* Types :-

on the basis of durability :-

- (a) Fixed Capital
- (b) Circulating Capital.

on the basis of mobility :-

- (a) Sunk Capital
- (b) Floating Capital.

on the basis of nature :-

- (a) Real Capital
- (b) Human Capital
- (c) Tangible Capital
- (d) Intangible Capital
- (e) Money Capital.

on the basis of ownership

- (a) Individual Capital
- (b) Social Capital

Capital in economics means man-made stocks of goods like factories, machines, tools, equipment etc which are used for production.

Entrepreneur :-

Enterprise's objectives :-

1. Organic objective \div Growth in the size of the firm
2. Economic objective \div earn profit.

$$\times \text{Accounting profit} = \text{Total Revenue} - \text{Accounting Cost (explicit Cost)}$$

$$\times \text{Economic profit} = \text{Total Revenue} - \text{Economic Cost (explicit + implicit)}$$

3. Social objective :- It lives in a society, it can't (unless) grow, unless it meets needs of society.
4. Human objectives :- Employee is the precious asset to the organisation.
5. National objectives :-

Production function :-

Functional relation b/w physical input & physical output, per unit of time & given Technology.

$$Q = f(a, b, c, \dots, n).$$

The production function explained in :-

① Short run production function :-

In which input-output relations are analysed where.

- * One input is variable, all other inputs are fixed (Law of variable proportions.)
- * Two inputs are variable, all other factors are fixed (with help of isoquants).

② Long Run production function :-

- * All the inputs are variable (Law of returns to scale).

* Cobb-Douglas production functions :-

$$Q = f(L, K)$$

In this case output is manufacturing production and inputs used are labour and capital. $Q = B_0 L^\alpha K^\beta$

* Fixed Inputs :-

- * Factor inputs whose quantity does not vary from day-to-day. ~~exp~~ :- Building, etc.
- * Fixed input does not vary with level of output.
- * The cost of fixed input is called Fixed Cost.

Variable Input :-

Factor Input whose quantity vary from day - day. ~~exp~~ :- Raw-material, etc.

Variable inputs vary directly with the level of output.

The cost of variable input is called Variable Cost.

Short Run

① Some factors of production or atleast one factor is fixed.

② output is produced with given scale of production remains unchange. eg:- plant

③ production law studied is law of variable proportion

④ Decisions are taken very frequently for changing factors depend upon demand.

Actual production period.

⑤ Supply is relatively inelastic.

Long Run

① All factors may vary.

② output is produced with the change in the scale of production. eg:- plants

③ production law studied is law of returns to scale.

④ Decisions for change in factors are taken only once.

It is called planning period.

⑤ Supply is relatively elastic.

① Cost is classified as Fixed Cost & Variable Cost.
Fixed Cost is main feature.

② All costs are variables.
Variable Cost is the main feature of long run.

① price determination of a commodity is influenced by.

Ⓐ demand

Ⓑ utility

Sub-normal price

② Average cost curve is 'U' shape.

① price determination of a commodity is influenced by.

Ⓐ Supply forces

Ⓑ Cost of production
Normal price

② Average cost curve is also 'U' shape.
'Planning Curve or Envelope Curve'.

(i) perfect competition:-
on being equilibrium may earn normal profit, abnormal profit or incur loss.

Monopoly being in equilibrium earn normal, abnormal profit or incur loss.

Monopolistic may earn normal, abnormal or incur losses.

perfect competition:-
earn only normal profits.

monopoly firm can earn super normal profits.

Monopolistic firm can earn only normal profit.

Concept of product :-

Total product produced by all the factors per unit of time.

Average product is the total product divided by number of units of variable factor. $AP = \frac{TP}{N.o \text{ of units}}$

Marginal product is addition made to total product by the use of an extra unit of variable factors.

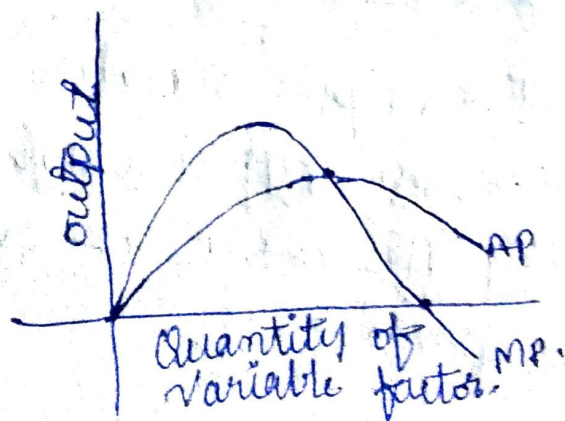
$$MP_n = TP_n - TP_{n-1}$$

$$MP = \frac{\Delta TP}{\Delta QVF}$$

Average product & marginal product relationship :-

1. When AP is rising — MP is more than its AP.
2. AP is falling — MP is less than AP.
3. AP is maximum — MP is equal to AP.

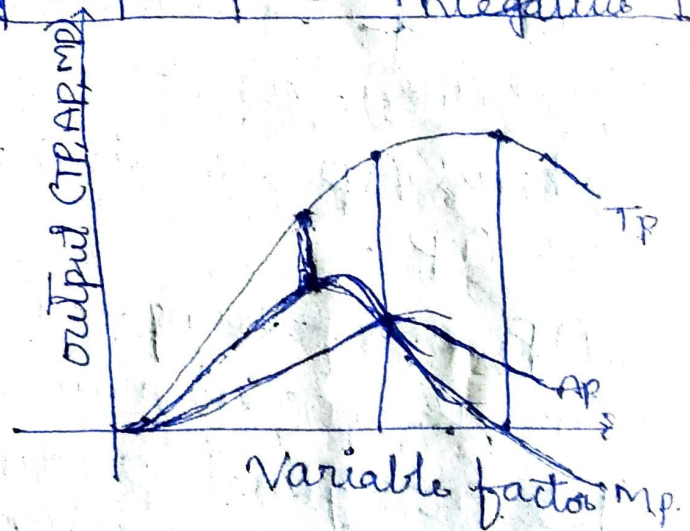
* the marginal product curve cuts the average product curve at its maximum point.



Law of Variable proportions:-

As the proportion of one factor in a combination of factors is increased, after a point first the marginal and then the average product of that factor will diminish.

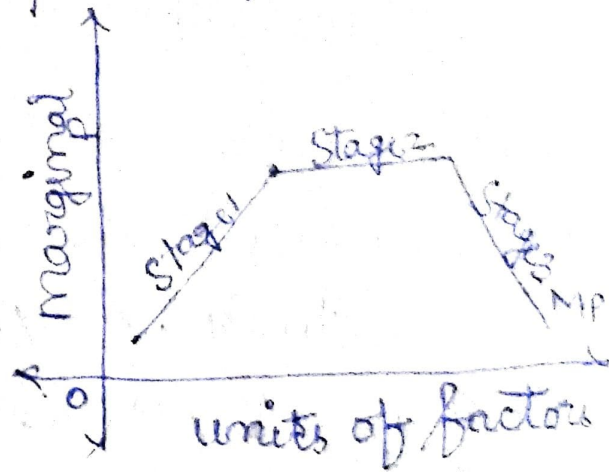
Fixed Factor	Variable factor	Ratio	TP	Ap	Mp	Stages
10	1	10:1	10	10	10	Stage I
10	2	10:2	30	15	20	Increasing Return to Scale
10	3	10:3	60	20	30	
10	4	10:4	80	20	20	
10	5	10:5	90	18	10	Diminishing Return to Scale
10	6	10:6	90	15	0	
10	7	10:7	85	12.1	-5	Stage - III negative



Law of Returns to Scale:-

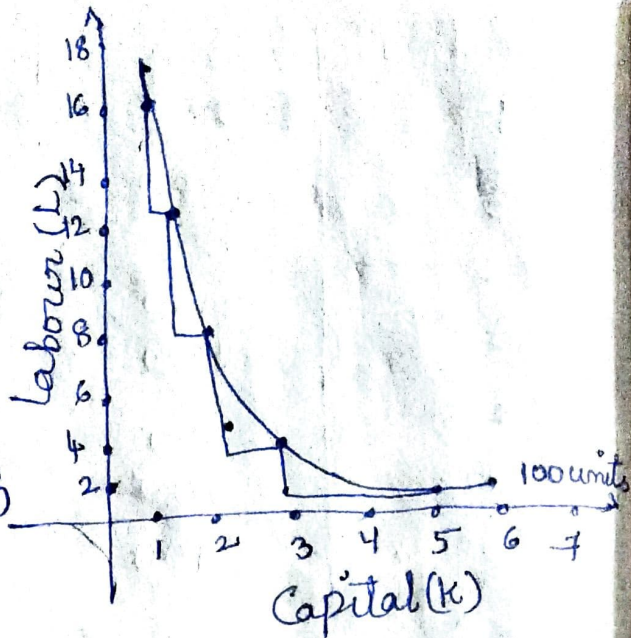
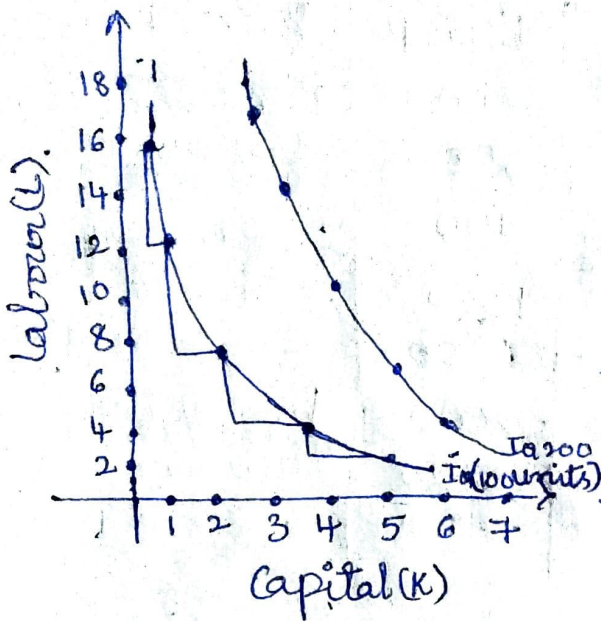
Output - Input relation in long runs where increase in output can be achieved by varying the units of all factors in the same proportions.

units of L/k	marginal p	Total p	Remarks
1	200	200	Increasing Returns
2	300	500	
3	400	900	
4	400	1300	Constant Returns
5	400	1700	
6	300	2000	
7	200	2200	Diminishing Returns
8	100	2300	



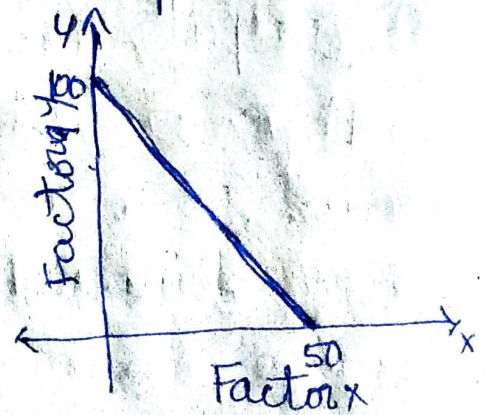
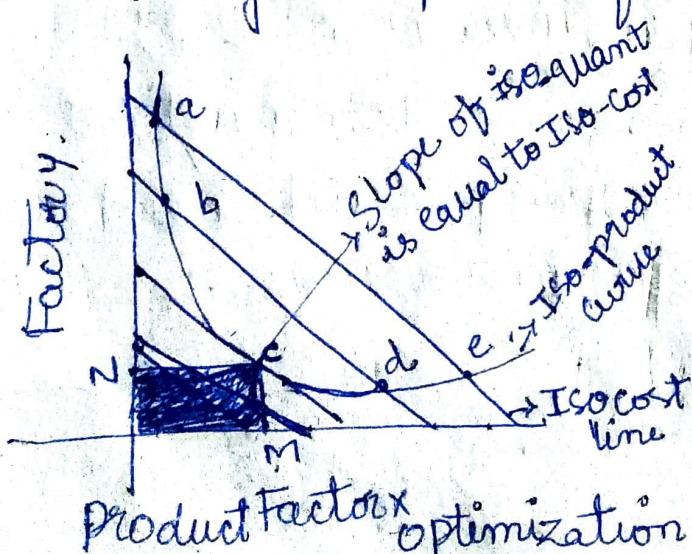
Isoquants :-

- * The curve which represents the various combinations of the ^{two} variable inputs that give the same level of output.
- * Iso-product curve gives the same level of output, the producer become indifferent to these combinations. Iso-product curve is also called product indifference curve or equal product curve.



Marginal Rate of Technical Substitution:-
 The rate at which one factor of production is substituted in place of other factor without any change ~~in~~ in the level of output.

Iso-cost line or Equal cost line:- (purchase 2 input factors)
 The line shows the various combinations of two factors inputs which the firm can purchase with a given outlay (budget) and at given prices of two inputs.



product optimization:- (produce at least cost
Combination of inputs).

This ensures maximization of profits
and produce a given level of output
with least cost combination of inputs.

The least-cost combination of inputs
or factors is called producer's
equilibrium. This is determined with
the help of @ isoquants @ Iso-cost
line.

Isoquant or iso-product curve which
shows the various combinations of
two inputs that produce same level
of output. It is convex to origin. The
slope of isoquants shows the marginal
rate of technical substitution which
diminishes i.e.:- $MRTS_{xy} = \text{slope}$

$$\frac{\Delta y}{\Delta x} = \frac{MP_x}{MP_y}$$

Iso-cost line Shows the various
combinations of two factors inputs
which the firm can purchase with a
given outlay and at given prices of
inputs. Slope of iso-cost line shows
the price of two inputs i.e. $\frac{P_x}{P_y}$.

Internal Economies:-

Internal Economies are those benefits which accrue to a firm or acquired by the firm when it expands the scale of production.

These economies are particular to the individual firms.

Types of internal Economies:-

1. Technical Economies:-

It increase its production because of use of better techniques of production and Equipments, plants etc.

2. Managerial Economies:-

They can employ business executive of high skill and qualification to look after functions.

3. Commercial Economies:-

Large size firm can reap economies of bulk purchase at discount rates. Firms spend large amount of money on advertising publicity etc.

4. Financial Economies:-

A big firm can enjoy Goodwill among lenders or investors. Firm can easily raise the finance.

6. Risk bearing Economies:-

A big firm produce many varieties of goods with stand the risk. loss on one product is covered by profit in another product.

Internal Diseconomies:- beyond the point

It means, when the scale of production is expanded beyond the point of optimal capacity, all the factors raise the cost of production.

1. production Diseconomies.
2. managerial Diseconomies
3. Technical Diseconomies
4. Financial Diseconomies
5. marketing Diseconomies.

External Economies And Diseconomies:-

External Economies are those benefits which accrue to all the firms operating in a given industry for the growth and expansion of that industry.

1. Technological Economies
 2. Economies of localization
 3. Economies of information
 4. Cheaper inputs.
 5. Growth of Ancillary industries
- (growth of industry)

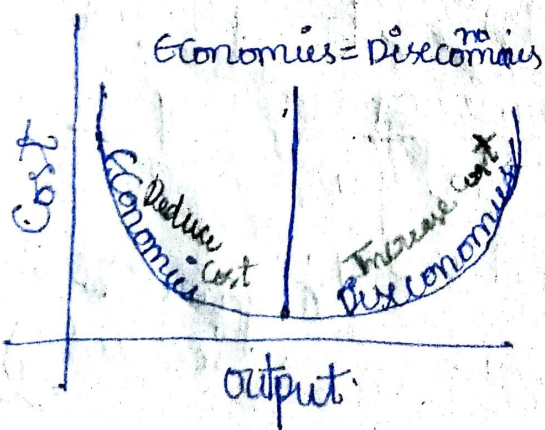
6. Development of skilled labour.
7. Better transportation & marketing facilities.

External Diseconomies:-

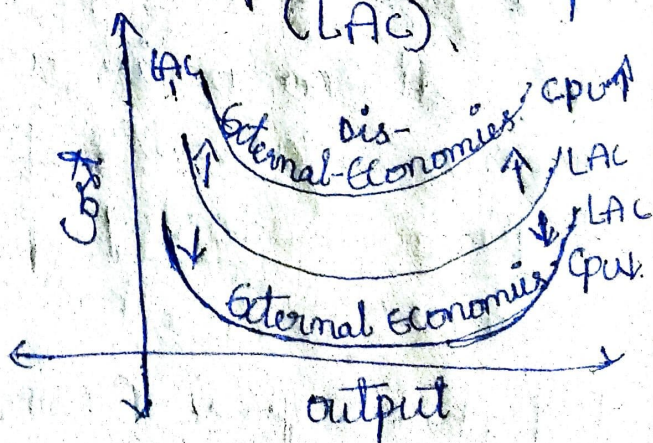
The growth and expansion of an industry in a particular area beyond optimum level result in many disadvantages for firms in the industry.

1. Diseconomies of scarcity of inputs.
2. Diseconomies of strains on infrastructure.
3. Diseconomies of high factor prices.
4. Diseconomies of expenditure on advertisement.

Internal Economies/
Diseconomies cause
long run average cost
(LAC).



External economies/
diseconomies cause
long run average cost
(LAC).



Cost Concepts:-

Accounting Cost:- are those cash payments which firms make to outsiders for purchasing or hiring the services of various productive factors, which do not belong to the entrepreneur.

The cost are in nature of "Contractual payments" to the factor supplied. This cost are recorded in firm's account books. All these expenses are called "Explicit Costs".

Economic Costs = Explicit Cost + implicit cost.

Implicit costs are costs of self owned & self supplied resources by an entrepreneur which are generally not recorded in the firm's account books. There is no contract obligation for payment to any body else.

Implicit Cost of various factors owned & supplied by owner itself. It also called "Opportunity Cost".

Firm earn Economic profit or normal profit when it recover both explicit cost as well as implicit cost.

Over & Above the normal profit is Super normal profit.

* Outlay cost involve actual outlay of funds on wages, material, rent, interest, etc. Outlay costs involve financial expenditure at some time and thus are recorded in books of accounts.

* The sacrifice or loss of alternative use of a given resource is termed as "Opportunity Cost". The opportunity cost is measured in terms of the foregone benefits from the next best alternative use of a given resource.

• The concept of opportunity cost is useful in the determination of relative prices of goods, normal remuneration to a factor, in decision making and in analysing optimum allocation of resources.

* Direct Cost :- ~~are~~ traceable cost is one which can be identified easily and indisputably with a limit of operation eg:- a product. In production of shoe the cost of leather is Direct Cost.

* Indirect Cost :- or non-traceable cost or common costs are those costs that are not traceable to plant, department and operation as well as those that are not traceable to

individual final products but are charged to jobs or products in standard accounting practice. eg:- Electric power.

Incremental Costs:- It is related to the concept of marginal cost. It refers to the total additional cost when business decisions are taken like to expand the production, hire more workers, materials, machinery, equipment, replace old plant & machinery etc.

Sunk Cost:- refers to the costs which has been already incurred in the past and cannot be recovered. It also includes an expenditure that has to be made in future under past commitment or agreement. Sunk are irrelevant for decision making as it can't be recovered. Sunk cost doesn't vary with the changes in business activity. eg:- Expenses on advertising, R & D, special equipments, etc.

Historical Cost:- Historical costs are those costs on purchase of assets in the past.

Replacement Cost:- Cost refers to expenditure to be made for replacing old assets.

• private cost :- are those costs which are incurred or provided for by firms. They may be either explicit or implicit. Since they form part of total cost of production, it implies they figure in business decisions.

• Social cost :- refers to total cost to the society due to business activity. Social Cost include both private cost & External Cost. It includes resources for which firm is not required to pay price like atmosphere, rivers, lakes, roads, etc.

Cost function :-

- The function relation b/w costs and output.
- The production function of a firm and the prices it pays for the inputs determine the firm's cost function.
- The cost function refers to relation between cost of a product and the various determinants of its cost.

$$C = f(O, S, T, U, P, \dots)$$

O - level of output

S - size of plant

T - time under consideration

P - price of factors of production

Therefore, the behaviour of Cost of production and the shapes of the cost curves depends upon laws of returns.

Short-run Total Cost :-

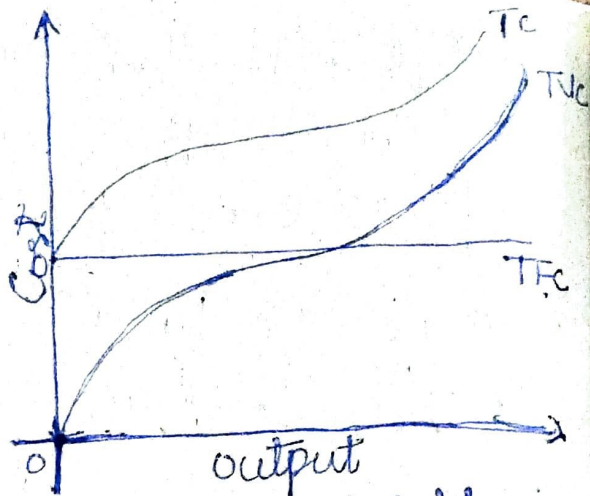
$$TC (\text{in Short-run}) = TFC + FVC$$

Fixed Cost :- (In Short run)

1. It is independent of output.
2. It includes both explicit & implicit cost.
3. It can never be zero.
4. It has no relation with output in short run because these costs remain constant whatever level of output.
5. It is therefore function of time.
6. Firm do not bother about recovering the fixed costs as it has to bear these costs even at zero level of output.
7. Fixed is also known as overhead cost.

Variable Cost :- (In Short run).

1. It changes with the changes in output.
2. It can become zero, if level of output falls to zero variable cost falls to zero.
3. Variable cost are therefore function of output.
4. Variable cost are also known as "prime or direct cost".



• Semi variable cost :- Stair Step Variable Cost

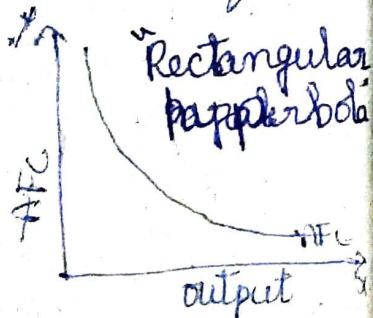
• Short run average cost :-

Making decisions about operations, unit cost functions or average costs are more useful than the total cost function.

1. Average Fixed Cost (AFC)

2. Average variable cost (AVC)

3. Average total cost (ATC)



$$\text{Average Fixed Cost} = \frac{\text{Total Fixed Cost}}{\text{Total output}}$$

• As output \uparrow \rightarrow AFC \downarrow - it spread over large output

• Slope downwards from left to right.

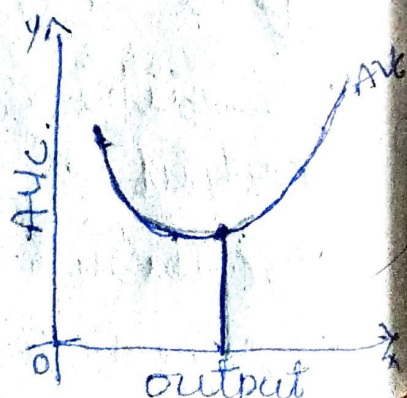
• It become closer to x-axis but doesn't touch. because Fixed Cost never be zero.

• AFC curve is a Rectangular hyperbola.

• Average variable cost :-

$$\text{AVC} = \frac{\text{Total Variable Cost}}{\text{Total output}}$$

• AVC curve is V-shaped.



Average total cost :-

$$ATC = \frac{\text{Total cost}}{\text{Total output}}$$

$$ATC = \frac{TFC}{Q} + \frac{TVC}{Q}$$

$$AC = AFC + AVC$$

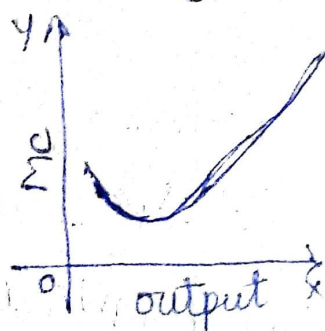


marginal cost :-

Marginal cost is additional to the total cost caused by producing one more unit of output.

$$MC_n = T_{cn} - T_{c(n-1)} \quad \text{or} \quad MC = \frac{\Delta TC}{\Delta Q}$$

It is independent of Fixed Cost. In short run TFC are constant for all level of output.

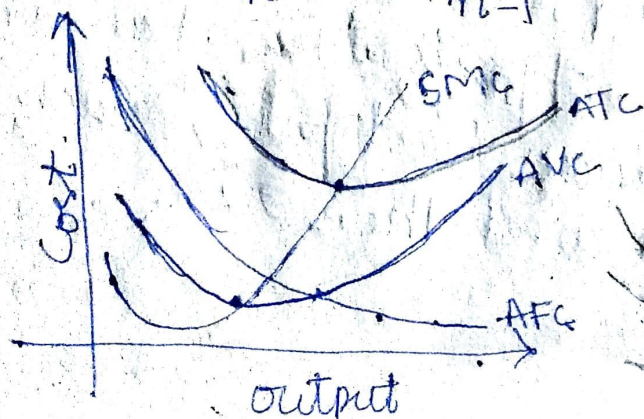


Marginal cost is affected only by the Variable cost.

$$\begin{aligned} MC_n &= (TVC_n + TFC_n) - (TVC_{n-1} + TFC_{n-1}) \\ &= TVC_n + \cancel{TFC_n} - TVC_{n-1} - \cancel{TFC_{n-1}} \end{aligned}$$

$$MC_n = TVC_n - TVC_{n-1}$$

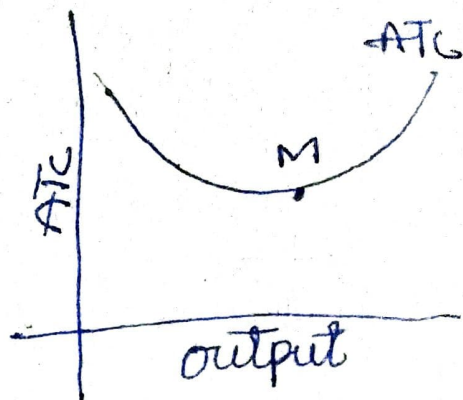
[FC - Remain Same]



'Average total cost or Average cost':-

$$ATC \text{ or } AC = \frac{Tc}{Q}$$

outputs (units)	Tc	ATC
0	60	-
1	100	100
2	136	68
3	162	54
4	192	48
5	230	46
6	282	47



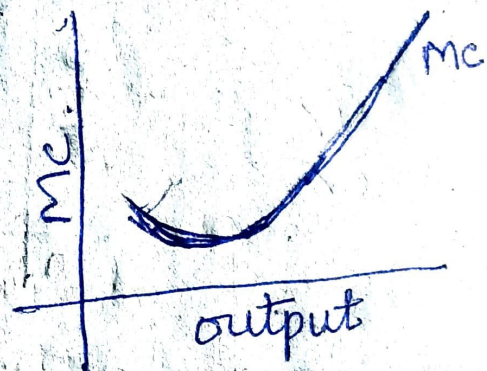
1. ATC falls initially, reach minimum and, then rises due to law of variable proportion.
2. ATC curve falls sharply when output expands. Reason being, initially both AVC and AFC curves fall.
3. When AVC curve start arising, but AFC curves continue to fall steeply, the ATC will continue to fall. Reason being, fall in AFC curve is more than the rise in AVC curve.
4. As output further rises, ATC curve rises. Reason being, there is sharp rise in AVC which offsets the fall in AFC. Thus ATC curve first fall, reach its minimum and then rise.

Marginal Cost

$$MC_n = T_n - T_{n-1} \quad \text{or} \quad MC = \frac{\Delta TC}{\Delta Q}$$

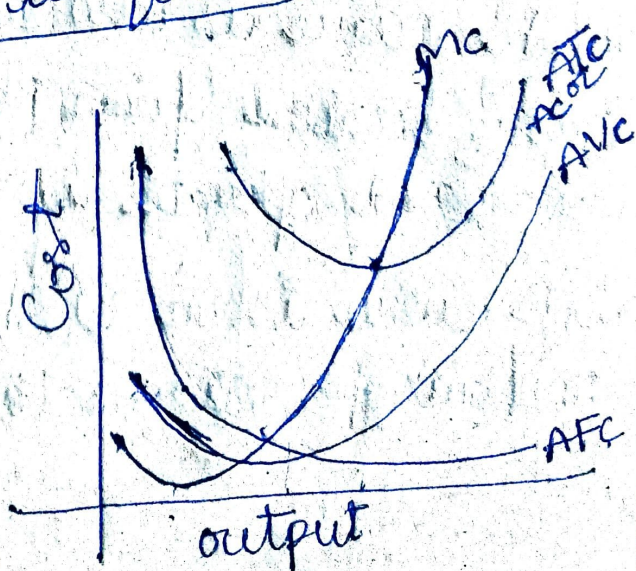
1. Marginal cost is independent of Fixed Cost.
2. The only change in total cost is when output changes, there is change in variable cost. Hence marginal cost is affected only by variable cost.

units	TFC	TVC	TC	MC
1	30	50	80	-
2	30	90	120	40
3	30	120	150	30
4	30	170	200	50
5	30	250	280	80
6	30	360	390	110



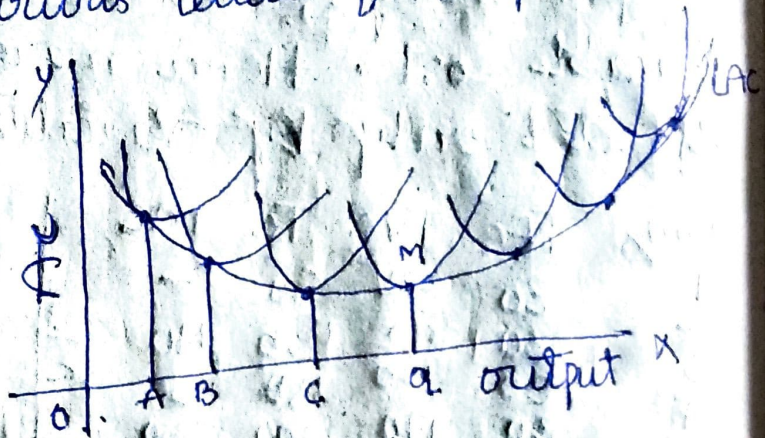
3. As output increase marginal cost initially falls due to increasing returns to factors but finally, MC rises.
4. MC curve is U-shaped. This is due to law of returns to factors and due to TC or TVC.

- ① $MC < AC$, it pull down AC, AC falls
- ② $MC = AC$, AC is const and at minimum
- ③ $MC > AC$; it pulls up AC and AC rises.



Long run average Cost Curve :-

1. Long run is a period of time during which the firm can vary all inputs.
2. The long run average cost curve shows the minimum possible average cost, for producing various levels of output.



3. Thus larger output can be economically produced i.e. - at lowest cost with the bigger plants and small output can be economically produced i.e. - at lowest cost with smaller plants.
4. LAC curve is also called "Planned Curve". This is because firm plans output in long run and operates in the short run.
5. LAC curve is in "U" shape because it depends on "law of returns to scale".

Price determination in Different Market

Classification of Markets:-

Area:-

1. Local Market
2. Regional market
3. National market
4. World market

Time:-

1. Very short period market
2. Short period market
3. Long period market
4. Very long period market

Nature of transaction:-

1. Spot market
2. Future market

Regulation:-

1. Regulated market
2. Unregulated market

Volume of Business:-

1. Wholesale market
2. Retail market

Competition

1. ~~Perfect~~ Competition

* Competition :-

1. Perfect Competition :- ^{Many sellers/buyers} identical products
2. Monopoly :- ^{Single seller & Many buyers.} No close substitutes.
3. Monopolistic Competition :- ^{Many sellers/buyers} different products.
4. ~~Monopolistic~~ Oligopoly :- ^{few sellers/buyers} Same or different goods.

* Total Revenue :- $\text{price per unit} \times \text{Total N.O of units sold.}$

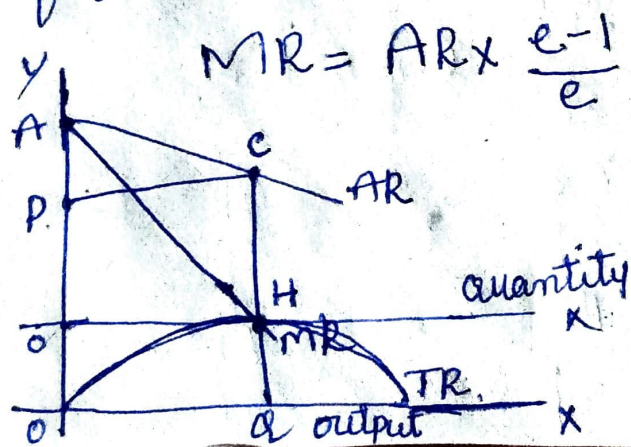
* Average Revenue :- $\frac{\text{Total Revenue}}{\text{N.O of units sold.}}$

* Marginal Revenue refers to additional to total revenue by selling one more unit of a commodity.

$$MR = \frac{\Delta TR}{\Delta Q}$$

* Marginal revenue, Average revenue, total revenue and elasticity of demand :-

Relationship b/w AR, MR and price elasticity of demand can be examined with the

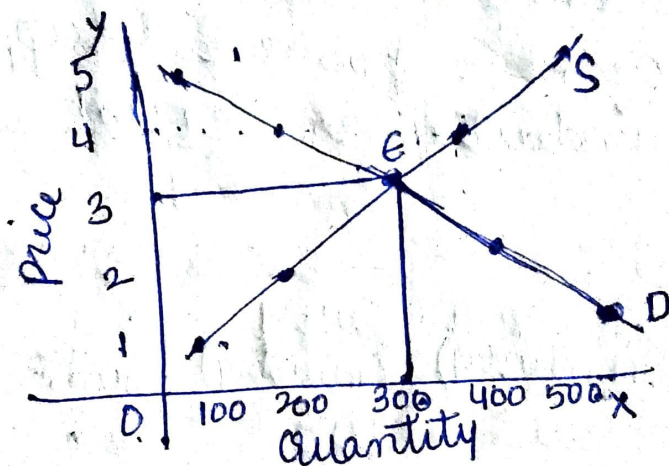


$e = 1; MR = 0$
 $e > 1; MR$ positive
 $e < 1; MR$ negative

Equilibrium price :- demand/supply/price.

The price that will come to prevail in the market is one at which quantity demanded equals to quantity supplied

price	buyer Quantity Demanded	seller Quantity Supplied	Trend	price
5	100	500	Excess supply	↓ Fall
4	200	400		↓ Fall
3	300	300	Equilibrium	=
2	400	200	Excess demand	↑ Rise
1	500	100		↑ Rise



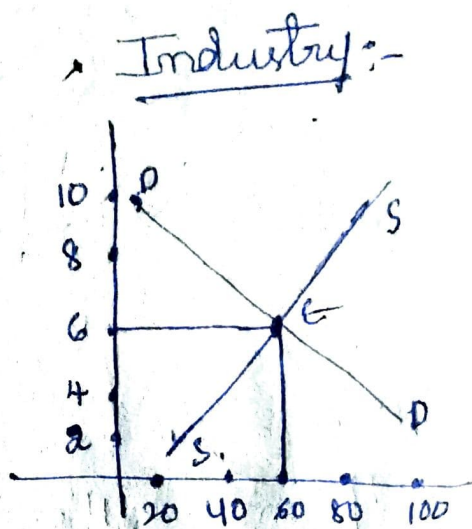
Perfect Competition :- price - output.

1. Large number of firms (seller) which produce and sell similar products.
2. Individual firm produce small portion of the total market supply.
3. Price is fixed by industry. Single firm cannot affect the price.
4. Firm is only price taker.

Features :- (Textiles Shop; Retail market). ^{Show market}

1. Large No of buyers and sellers.
 2. Homogeneous product.
 3. Free entry and exit of the firms.
 4. Perfect knowledge of the market.
 5. perfect mobility.
 6. No transport cost.
 7. No selling cost — uniform price.
- Equilibrium price is determined at a point where demand for and supply of the whole industry are equal to each other.

Price	Demand (Industry)	Supply (Industry)
10	20	100
8	40	80
6	60	60
4	80	40
2	100	20

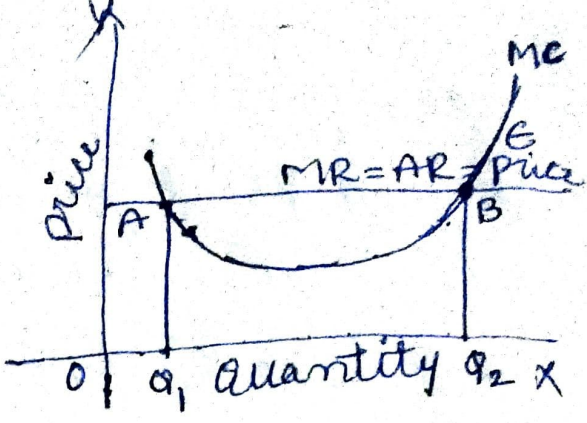


Firm :-

Price	Quantity Sold (units)	TR	AR	MR $\frac{\Delta TR}{\Delta Q}$
6	8	48	6	6
6	10	60	6	6
6	12	72	6	6
6	14	84	6	6
6	16	96	6	6

re market

Firms :-



* OQ_1 is not equilibrium output. Firm should expand output beyond OQ_1 , because it will result in fall of marginal cost, and add to firm's profit.

* $MR = MC$ but MC curve cuts the MR curve from below i.e. it has positive slope.

* Short run equilibrium of a Competitive firm :-

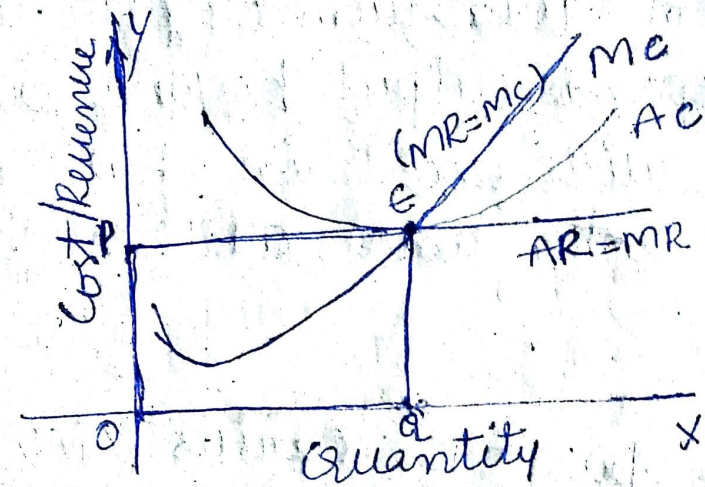
1. Short run firm attains equilibrium at a level of output which satisfies.

(a) $MR = MC$

(b) MC curve cuts the MR curve from below :-

2. Firm in short run equilibrium, it may find itself in any of the following:

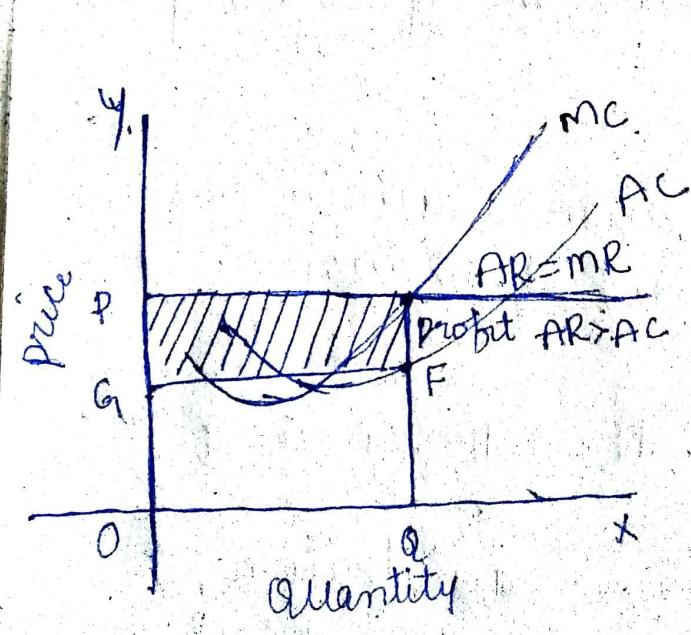
1. It breaks even i.e.:- Normal profits where Average revenue = Average cost ($AR = AC$)
2. It earns profits i.e.:- Super normal profit where Average revenue > Average cost ($AR > AC$)
3. It suffers losses where Average revenue < Average cost i.e. ($AR < AC$)



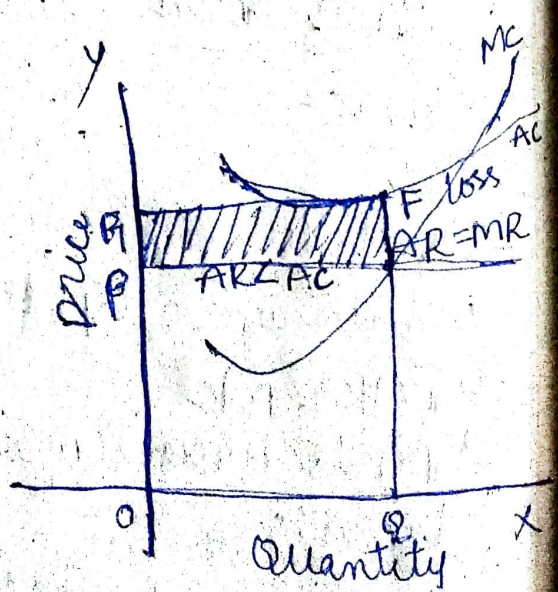
Average revenue = $OE (= OP)$

Average Cost = $O'E$

Hence $AR = AC$ Normal profit.



Superprofits



Loss

* Loss of Firm :- Whether to Continue/Shut

Total Cost firm = $TVC + TFC$.

Fixed Cost can't be recovered.

If firm recovered Variable Cost it should "Continue". $AR > AVC$.

If firm not recovered Variable Cost it should "Shut down". $AR < AVC$.

* In long run equilibrium of a
Competitive firm :-

$LMR = LMC = LAC = LAR = \text{price}$

Normal profit.

* Firm earn normal profit in long run as it produce at optimum cost.

Monopoly :-

If refers to that market structure where there is a single firm producing and selling a commodity which has no close substitute. 1

1. The monopoly itself is industry and

2. Its output constitutes the total market supply.

Features :-

1. Single seller and large No of buyers.
2. No close substitute.
the cross elasticity of demand between monopolist's commodity and other commodity is zero or less than one.
3. Restrictions to entry for new firms.
4. price maker.

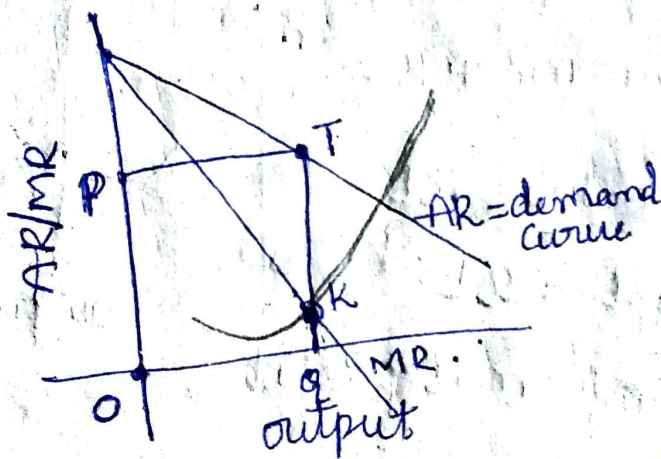
Sources :-

1. Patents, Copyrights and trade marks.
2. Control of raw materials.
3. Economies of large scale of production.
4. Government Control on entry:
eg:- public utility services like water, transport, electricity, etc.
5. Business Combines :-

Average Revenue and marginal revenue Curves under monopoly :-

The demand curve of the consumers for a commodity slopes downwards, the monopolist faces a downward sloping curve. It means monopolist should sell more quantity at lower price.
Can

units sold	price	TR	MR
1	10	10	10
2	9	18	8
3	8	24	6
4	7	28	4
5	6	30	2
6	5	30	0
7	4	28	-2



Short run equilibrium of the monopoly firm:-

- Monopolist will maximize his total profit
 - Ⓐ Marginal Cost = Marginal revenue
 - Ⓑ Marginal cost curve cuts marginal revenue curve from below.
- Firm will earn Super normal profit $AR > AC$
 Firm will earn normal profit $AR = AC$
 Firm will suffer loss $AR < AC$.

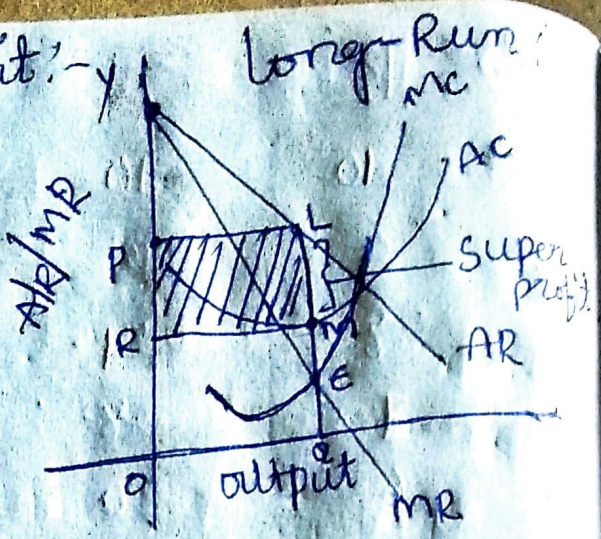
3. Super Normal profit:-

Equilibrium = $MR = MC$

Average Revenue = OL (OP)

Average Cost = OM

Profit = $AR - AC$
 $= OL - OM$
 $= LM$



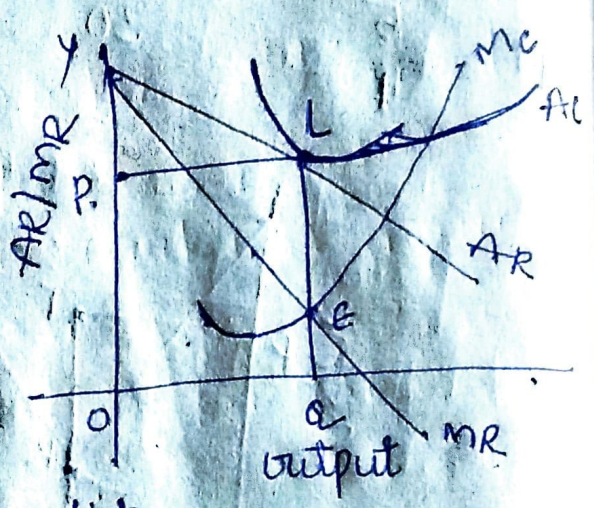
4. Normal profit:-

Equilibrium = $MR = MC$ (E)

Average Revenue = OL

Average Cost = OL

$AR = AC$ Normal profit



Long run equilibrium of a monopoly:-

1. Monopoly firm attains where equilibrium where its $MC = MR$.
2. It earns Super normal profit because entry to this market is restricted.
3. As all the cost of variable cost in long run, firm should recover. i.e.
4. If variable cost was not recovered by firm it should shut down. Figure same as Super Normal profit.

price discrimination :- (price maker).

1. Firm has the power to sell same product to different buyer at different price.

Conditions :- (possibility of price discrimination)

1. Existence of two or more than two sub-markets. poor/rich.
2. Different market should have different price elasticity of demand. Inelasticity elasticity.
3. No possibility of resale. No contract.
4. Control over supply.

price-output determination :-

1. If Monopolist has only one facility then he is faced with -

- a) How much to produce?
- b) How to sell in each market?
- c) How price to charge in each market?

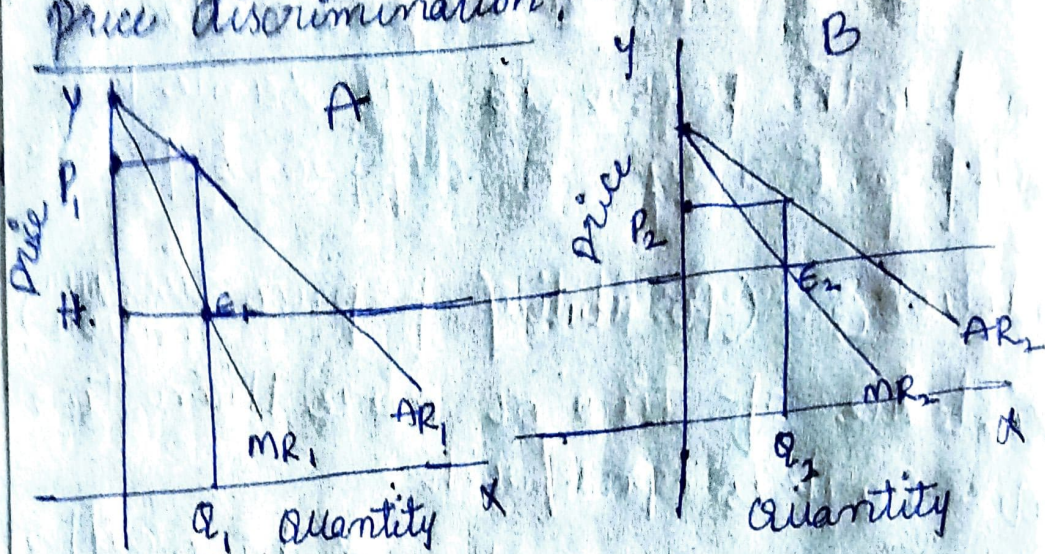
2. Then monopolist will decide profitable level of output $MR = MC$.

3. Equilibrium :-

a) $MC = MR_a = MR_b$. MC must be equal to MR in individual market.

b) $MC = AMR$. (Aggregate marginal revenue)

Price discrimination :-



1. Price charged in market 'A' higher than
2. Thus a discrimination monopolist charge a higher price in the market 'A' having less elasticity of demand and a lower price in the market 'B' having more elasticity of demand.
3. Marginal revenue is different in different market.

* MR, AR and price elasticity of demand

$$MR = AR \left(\frac{e-1}{e} \right)$$

Objectives :-

1. To earn maximum profit.
2. To dispose off surplus stock.
3. To enjoy economies of scale.
4. To capture foreign market etc.

Imperfect Competition :- Monopolistic
Oligopoly Competition :-

Monopolistic Competition :-

1. There is a competition because of large number of firms with easy entry into the industry by selling similar products.

2. The monopoly element is due to the fact that firms produce different products. The products are similar but not identical.

eg:- bathing soaps, detergents, shoes, water fitness, shampoos, etc.

Features :-

1. large n.o of buyer & sellers.

Each individual firm share relatively fraction of the total market.

2. product differentiation.

Close substitutes, Brand loyalty.

3. Freedom of entry & exist.

4. Non-price competition.

Firms not compete based on price, they compete each other through advertisement, product development, etc.

→ Short run equilibrium of a firm:-

1. Firms are price makers and determine the prices of its own product.

2. Conditions for equilibrium :-

(a) $MR = MC$ and

(b) MC curve cuts the MR curve from below.

3. Super normal profit $AR > AC$

Normal profit $AR = AC$.

Loss $AR < AC$

Same as Monopoly/
perfect markets.

Long run Equilibrium :-

• If firms earn super normal profits, it attracts new firms to enter.

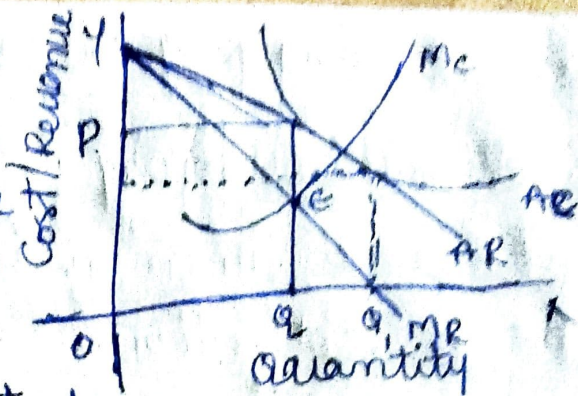
2. With the entry market will be shared by all the firms.

3. As a result, profits per firm will go on falling.

4. This will go on till super normal profits are wiped out and all firms earn only normal profit.

∴ $AC = AR$ Normal profit.

1. Firm can expand its output from Q to Q_1 and reduce its average cost.



2. But it will not do so because to sell more it will have to reduce its average revenue even more than average costs.

3. Firm will operate in sub-optimum level in long run.

Oligopoly :-

1. It refers to market structure where there are few sellers or firms.

2. They produce and sell such goods which are either differentiated or homogenous products.

eg:- Cold drink industry; automobile industry, etc.

Types of oligopoly :-

1. pure or perfect oligopoly :- Same goods.

2. Differentiated oligopoly :- different goods.

3. open oligopoly :- new firm enters & compete with existing firm.

4. Closed oligopoly :- new firm entry restricted.
5. Collusive oligopoly :- firms come together with some common understanding and act as collusion.
6. Competitive oligopoly :- no understanding
7. partial oligopoly :- dominated by large firm looking upon by other firms as a leader
8. Full oligopoly :- absence of price maker
9. Syndicated oligopoly :- sell centralized.
10. Organized oligopoly :- firm organize themselves into central association for fixing prices, output, quotas, etc.

Features :-

1. ^{er}Independence :- treat as rivals by each other
2. Importance of advertising and selling costs :- offers, discounts, etc.
3. Indeterminate demand curve :- due to rival firm sell, firm take decision on selling. So, there is no demand curve
4. Group behaviour :-

price leadership:-

A large or dominant firm may be surrounded by many small firms. So, dominant firm takes the lead to set the price, taking into account of small firms. There are strategies:-

1. Live and let live:- dominant firm accept the presence of small firm and set price - price leadership.
2. price leader sets the price in such a way that it allows some profits to followers firm.
3. Barometric price leadership:- old, experienced, respectful, largest firm acts as a leader and sets price.

Kinked demand curve:-

In oligopolistic industries there is price rigidity or stability.

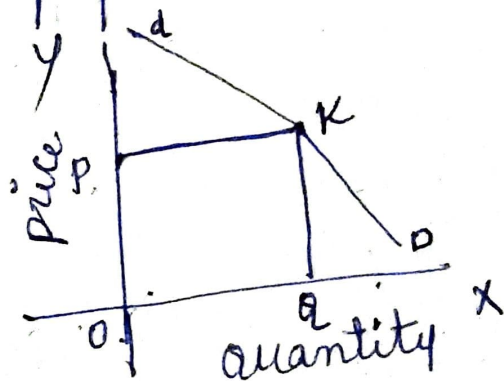
2. The price remains sticky or inflexible.
3. Kinked demand curve hypothesis given by American economist Paul M. Sulezy.

According to kinked demand curve hypothesis, the demand curve faced by an oligopolist has a "kink" at the prevailing price level.

* A kink is formed at the prevailing price because -

(a) the portion of demand curve above the prevailing price is elastic - sales

(b) the portion of demand curve below the prevailing price is inelastic \rightarrow



Oligopsony market :- Small N^o of large buyer in market

Duopoly :- two firms in the market

Bilateral monopoly market :- a single buyer and a single seller.

Monopsony market :- single buyer

Pricing Strategy:-

1. Full cost or Cost plus pricing:- The price is set to cover the cost of material, labor, overheads and a certain percentage of profit cost to be included are actual cost, expected cost and standard cost.
2. Going rate pricing:- The going rate pricing emphasize the market conditions where a price leader exists and he charges a price keeping with the followers are charging.
3. Marginal Cost pricing:- The marginal cost pricing appears to suggest that the price charged should be equal to marginal cost. A firm can set a price that ensure the targeted or possible level of profitability also called incremental cost pricing. It refers to the change in total revenue following a unit change in total revenue following a unit change in output.
4. Intuitive pricing:- It is response or reaction to feel the market.