Biyani's Think Tank

Concept based notes

Business Economics

(B.Com. Sem-I (P)) & BBA Sem-II

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Preface

I am glad to present this book, especially designed to serve the needs of the students. The book has been written keeping in mind the general weakness in understanding the fundamental concepts of the topics. The book is self- explanatory and adopts the "Teach Yourself" style. It is based on question- answer pattern. The language of book is quite easy and understandable based on scientific approach.

Any further improvement in the contents of the book by making corrections, omission and inclusion is keen to be achieved based on suggestions from the readers for which the author shall be obliged.

I acknowledge special thanks to Mr. Rajeev Biyani, *Chairman* & Dr. Sanjay Biyani, *Director* (*Acad.*) Biyani Group of Colleges, who are the backbones and main concept provider and also have been constant source of motivation throughout this Endeavour. They played an active role in coordinating the various stages of this Endeavour and spearheaded the publishing work.

I look forward to receiving valuable suggestions from professors of various educational institutions, other faculty members and students for improvement of the quality of the book. The reader may feel free to send in their comments and suggestions to the under mentioned address.

Author

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Course Code : UG0201—BBA-52T-106
Name of Course : Business Economics
Semester : II

Level	Course Credits	No. Of Hours per Week	Total No. of Teaching Hours
5	6 Credits	6 Hours	90 Hours

OBJECTIVES:

1. The objective of this course is to acquaint the students with concepts and techniques used in Micro & Macro Economic theory and to enable them to apply this knowledge in Business decision-making.
2. Business economics also aims to help students understand the broader economic environment in which businesses operate, including the macroeconomic factors that affect the overall performance of the economy.

SYLLABUS

UNIT -I

Business Economics- Meaning, Nature and Scope, Role of Business Economist in Business.
Central problems of the economy. Micro Economics & Macro Economics: Concept& Scope. Role of Micro and Macro Economic Analysis in Formulation of Business Decisions, Difference and Interdependence of Micro and Macro Economic Analysis.
Utility Analysis: Cardinal and Ordinal Approaches, Law of Diminishing Marginal Utility and Law of Equi-Marginal Utility, Consumer's Surplus.

UNIT-II

Indifference Curve-Meaning, Characteristics, Consumer's Equilibrium, Income Effect, Price Effect and Substitution Effect.
Demand Analysis, Law of Demand, Elasticity of demand and its measurement and significance.
Supply and Law of Supply, Elasticity of supply.
Demand Forecasting.
Revenue and Cost Analysis: Revenue Analysis, Relationship between Total Revenue, Marginal Revenue and Average Revenue, Various concepts of cost, short and long run cost curves.

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UNIT-III

Production Function – Types of Production functions, Laws of Returns, Law of Variable Proportions, Returns to scale, Isoquant curves, Expansion path.

General Theory of Price Determination. Role of Time Element in Price Determination.
Market Analysis: Price and Output determination under Perfect Competition, Monopoly, Discriminating Monopoly, Imperfect Competition and Oligopoly: Price Leadership and Kinked Demand Curve.

Unit-IV

Business Cycles-Theories and Phases.
Factor Pricing: Determination of Rent, Wages, Interest and Profit.
Marginal Productivity theory of Distribution.
National Income and its measurement, National Income and Its relationship with Economic welfare.

Suggested Readings:

1. D.M. Mithani: Fundamentals of business and managerial economics, Himalaya Publishing House.
2. Mote and Paul and Gupta: Managerial Economics, TATA McGraw Hill, New Delhi.
3. Ahuja, H.L.: Managerial Economics, S. Chand & Company Ltd., New Delhi.
4. B.P. Gupta: VyavsayikArthashastra (Hindi), Malik and Company, Jaipur.
5. Agarwal and Agarwal: VyavsayikArthshastra, (Hindi) Ramesh Book Depot., Jaipur.
6. M. D. Agarwal and Som Deo: Business Economics, Ramesh Book Depot, Jaipur.
7. Dwivedi D. N., Managerial Economics, Vikas Publications, Delhi.

LEARNING OUTCOME OF THE COURSE:

1. Business economics courses should encourage students to develop critical thinking skills, including the ability to evaluate economic arguments and theories, identify biases, and make well-reasoned judgments.
2. Overall, the outcome of a course in business economics should be to equip students with the knowledge and skills necessary to make informed decisions in the complex and dynamic business environment. Graduates of business economics programs should be able to apply economic principles and analytical skills to solve business problems and make strategic decisions that contribute to the success of their organizations.

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THEORY OF DEMAND

Demand Related with three elements.

I. Price
II. Quantity
III. Time

Q.1 what is Demand? What are determinants of Demand?

ANS. Demand means that a commodity demanded at a given pricein given quantity and in given period of time.

→ Demand increases or decreases by a various factor such as?

(a) PRice of the commodity

it is the most important factor of Demand there will be inverse relationship between demand and price demand increase in price their will be fall in demand and vice-versa.

(b) Price of Related Goods

Two Types of Realated Goods

i. **Substitute Good**
Substitute Goods are those goods which can be used in the place of other for satisfaction of a particular want. [Like tea and coffee. if price of Substitute goods increase than rises in the demand of another good So that direct relationship b/w goods & demand.

ii. **Complementary goods**
These Goods which are used together to satisfy a particular want like [tea & Sugar] if increase the price of complementary then decrease that goods demand, also and vice-versa.

(c) Income of Consumer

The effect of change in income depends on the nature of the commodity. There are two types of Income of consumer.

i. **Normal Income**
There is a positive relation between income & demand of goods. A consumer buy more amount Of quantity with increase in income.

ii. **Inferior Income**
There is a negative relation b/w Inferior goods and demand. it means that if increase in income, the consumer will buy less amount of commodity Vice-versa.

(d) Taste and prefrences

Other thing remaining the same, favorable change in the taste, Preference and fashion of a consumers. positively influence the demand of goods which shift original demand curve in rightwards and vice-versa.

(e) Future Expectation

If the consumer expectations the price in the will rise, then he will buy more quantities in present at existing price and vice-versa

LAW of DEMAND

Q.1 Explain law of Demand with diagram? Briefly:

ANS. The law of Demand explains the inverse relationship between the price of a commodity and its quantity demanded. Over a certain period of time.

According to this law other thing remaining same very inverse relation with price if increase in the price of commodity then fall in the quantity demanded and if Decrease in the price of commodity then use the quantity demand for movement along same demand curve.

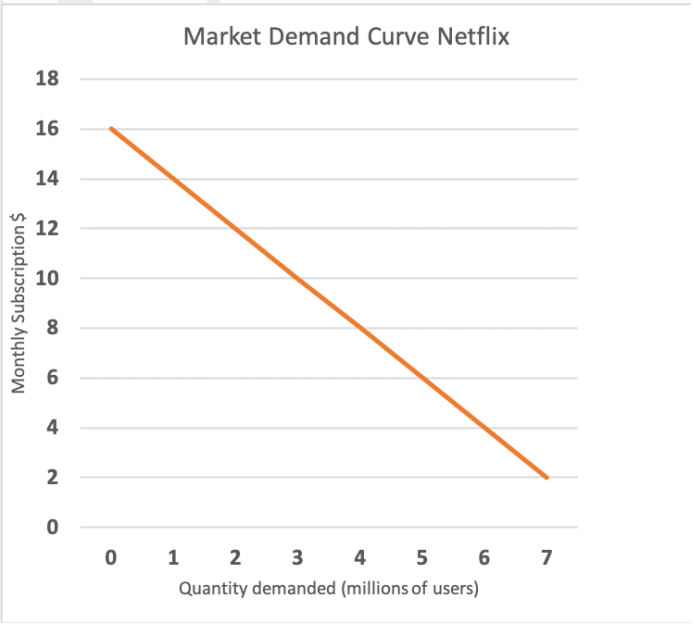
If the price of good rises, then the quantity demanded will fall

If the price of a good falls, then the quantity demand will rise.

for Example →

This is the market demand schedule for Netflix subscriptions

Total market demand (millions)	Monthly subscription ($)
0	16
1	14
2	12
3	10
4	8
5	6
6	4
7	2



Assumptions of the law

i. Money income of the consumer does not change.
ii. Nature, taste, Preference not change
iii. Substitute goods not available,
iv. Price of related good not change.

No change in the quantity of goods.

Q.2 Why Demand curve Slopes Downward to the Right?

Demand curve slopes downward (negative slope) because of following factors.

1. **Law of DMU**

Law of Demand is based on law of DMU According to this law, as consumption of commodity increases, the utility from each successive units goes on diminishing to a consumer.

if every addition wait to be purchased, the consumes is willing to pay as less and less price. more purchased when price of commodity of falls.

2. **Income effect**

Income effect refers to change in quantity demand when real income of buyer change as a result of change in price of a commodity with the fall in price of the commodity real income increases and accordingly demand for a commodity expands.

3. **Substitution Effect**

when own price of commodity falls, it become cheaper in relation to a its substitute goods.

like tea and coffee. Substitute commodity

If Price of tea goes down than demand of coffee goes down because purchasing power of consumer to increase to tea.

4. **Change in number**

This means entering and existing of customers in the market due of Rise in price and fall in price

5. **New Uses:**

Many goods have alternative uses,

E.g. Milk is used for making curd, cheese & butter. If price of milk reduces it will be put into different uses. According the Demand of Milk.

Exceptions and limitations of law of Demand

Law of Demand some limitation and Exceptions as well. There are some commodities whose demand expands as when there. price rises and contrasts when their prices fall. In such situation, the demand curve OD slopes upward from left to Right

1. **Giffen Goods**

Griffen Goods are highly inferior goods, showing a very high negative income effect. As a result, when price of such commodities fall their demand falls, even they happen to be relatively cheaper the other goods. This is popularly known as giffen Good.

When consumer judge quality of a commodity by its Price?

How of demand is violated when consumer judge the quality of commodity by its price. The emerging trend to buy organic form product explains this phenomenon a between organic and non-organic product in the market.

The richer section of society consider organic products as of very highly quality. According quality demanded of these products has tended to rise even when their prices are extremely high.

2. **Status Symbol**

The low demand will not apply in case of Costly item such as diamonds. These commodities will be demanded even if the prices have gave up very high.

3. **Future Expectations**

The law of demand will not apply ith case exported to rise in future, the increase in the price will increase in quantity demanded of such goods and services by consumer vice-versa. When the future expectation regarding the price of goods are to decrease then less quantity will be demanded by consumer.

4. **Goods Related to Necessaries of Life**

Those goods which are in the Category of necessaries of life not affected day law of Demand. With the in their price the demand is not adversely affected and when they are cheaper they will not be demanded more. Like Salt, foodgrain in and life sorting medicines.

5. **Ignorance and Laziness on the part of consumers**

Sometimes Consumers thinks that commodity available at high price is useful and give more utility. They will purchase at high price.

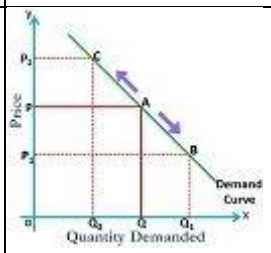
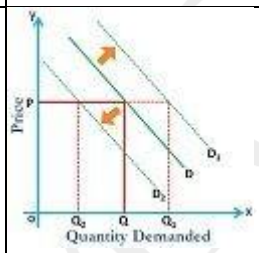
SpecificBrand and Trade Mark Commodity

Small part of total Expenditure

Speculative Achuities.

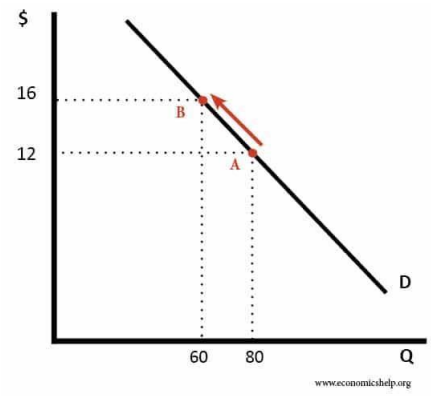
Q.3 What is the difference between Shift in Demand curve and Movement on Demand Curve?

ANS. Change in demand or change in quantity demanded can be discussed in two ways:

BASIS FOR COMPARISON	**MOVEMENT IN DEMAND CURVE**	**SHIFT IN DEMAND CURVE**
Meaning	Movement in the demand curve is when the commodity experience change in both the quantity demanded and price, causing the curve to move in a specific direction.	The shift in the demand curve is when, the price of the commodity remains constant, but there is a change in quantity demanded due to some other factors, causing the curve to shift to a particular side.
Curve		
What is it?	Change along the curve.	Change in the position of the curve.
Determinant	Price	Non-price
Indicates	Change in Quantity Demanded	Change in Demand
Result	Demand Curve will move upward or downward.	Demand Curve will shift rightward or leftward.

(i) Contraction

When all other thing remain constant, if the prices of commodity increases, the quantity purchased tends to decrease. It is called contraction of demand.

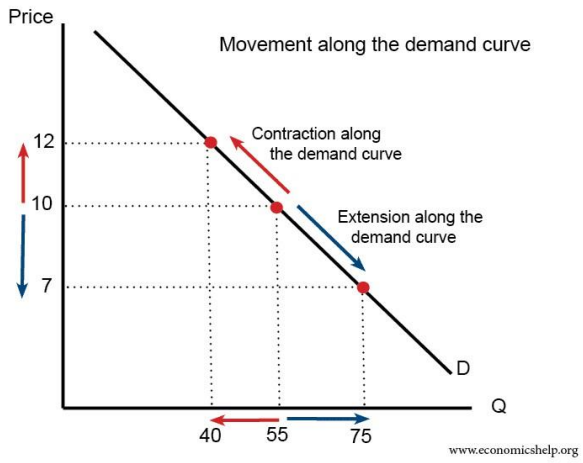


with the help of table and figure it, it can be seen that increase in price from $12 to $16 causes a movement along the demand curve, and quantity demand falls from 80 to 60. We say this is a contraction in demand.

(ii) Extension of Demand curve

when all & other things the remains constant if Price of a commodity decreases, the quantity purchased tend to increase. It is called Extension of demand curve.

Explanation with Diagram



with the help of table and diagram, it can be seen that a fall in price from $16 to $12 leads to an expansion (increase) in demand. As price falls, there is a movement along the demand curve and more is bought.

A change in price doesn't shift the demand curve – we merely move from one point of the demand curve to another.

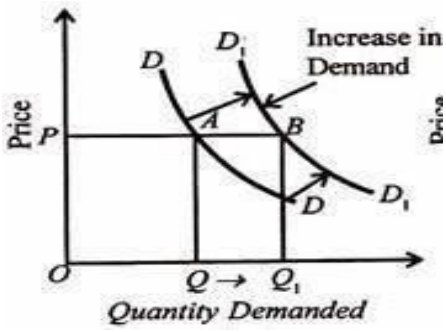
(iv) Shift in Demand curve

when change in demand of a commodity is not due to change in its price but due to other factors like income, future. future expectation, price of / goods, it is called increase or decrease in demand curve.

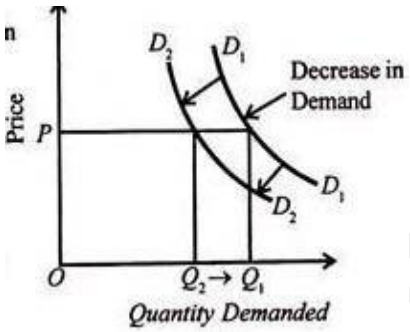
a. Increase in demand

If demand for a commodity rises not due to price but due to favorable change in factors like income, tastes, fashion so it called increase in demand

Explanation with diagram



b. Decreases of Demand



It demands for a commodity decreases not due to price but due to favorable change in other factors like income, taste it is called decreases in Demand

- **<u>Factor affecting causing Increase in Demand</u>**

I. Increase in Income
II. Increase in number of consumers...
III. When price of substitute income increased
IV. When price of complementary good decreased.
V. Tax consentiont reduced price.
VI. Positive change in taste and Preference."

- **<u>Factor causing decrease in Demand</u>**

I. Decrease in Income
II. Decrease in number of Consumer
III. when price of substituted goods increase, decrease
IV. When price of complementary good increase
V. Higher tax rate price

Q.4 Difference between Individual Demand curve and Market demand Curve?

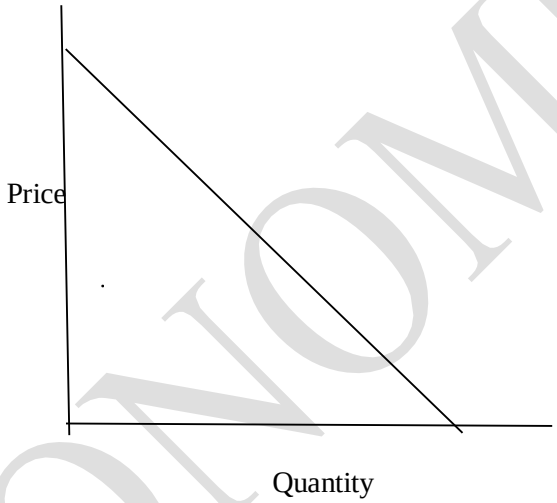
ANS. INDIVIDUAL DEMAND

Individual Demand reflect demand, of a commodityby a single consumer at different prices.

Schedule and Diagram

Price	Demand
10	10
8	20
6	30
4	40
2	50

The tabular representation of price and quantity demanded is called Demand Schedule.



Individual Demand Curve means graphical representation of price and quantity demand by an individual consumer at particular time.

MARKET DEMAND

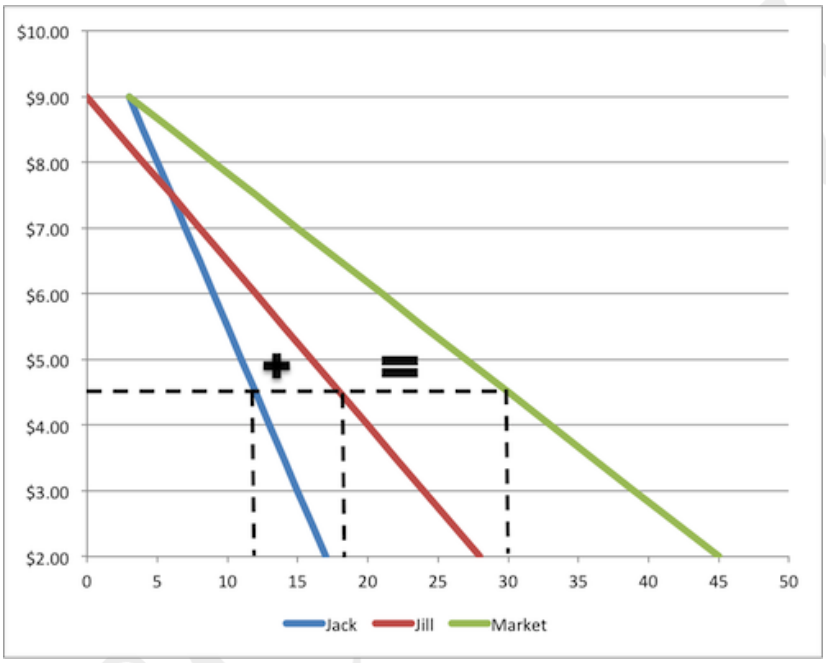
Market demand refers to total quantity of a commodity that all the consument or household are willing to buy at given price at given period of time.

Market Demand Curve means graphical representation at demand and price

Market Demand Schedule

It is the tabular presentation of demand for commodity by all the consumer is called.

Market Demand schedule.



PRICE ELASTICITY OF DEMAND

Q.1 what is Price elasticity of Demand?

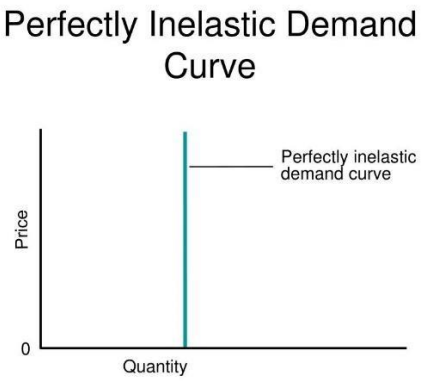
Price elasticity of Demand measures the extent to which quantity of commodity increases or decreases in any of its quantity determination. When change quantity demanded is measured in response to its price, it is called Price Elasticity of Demand.

Q.2 Explain various types of degrees of price elasticity..

ANS. we can discuss the degree of elasticity of in five Cases

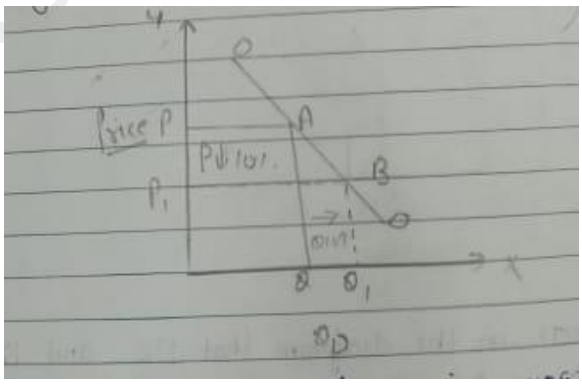
1. **Perfectly inelastic demand (ed = 0)**

In this situation, price of a commodity can be changed but demand remains constant

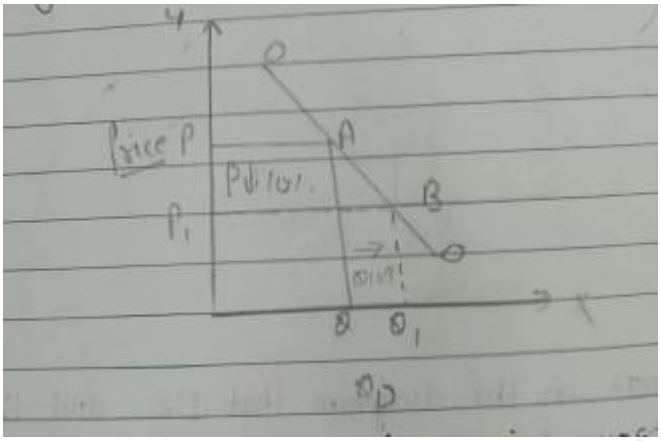


2. **Highly in elastic / less than unitary demand (ed<1)**

When change in QD of a commodity in response to change in its price is such that its total expenditure decrease when price falls that shows percentage change in quantity demanded is less than percentage change in price of a commodity, the demand curve DD is more steeper.

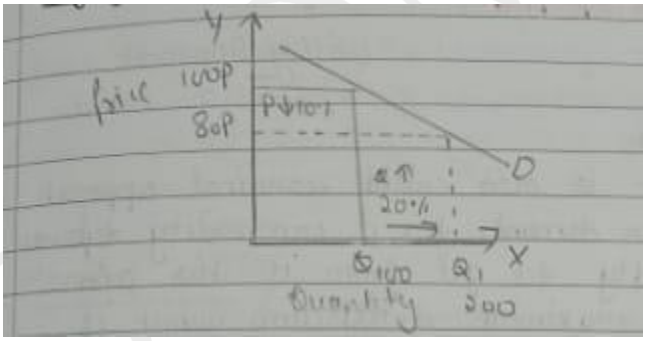


3. Unitery Elastic Demand (ed =1)



In this case, percentage change in quantity demand is as same as the percentage change in price. It can be seen in the figure that when decrease by 10% the demand also increase by 10% which show fall in 10% of price& rise in 10% QD and its Vice- Versa.

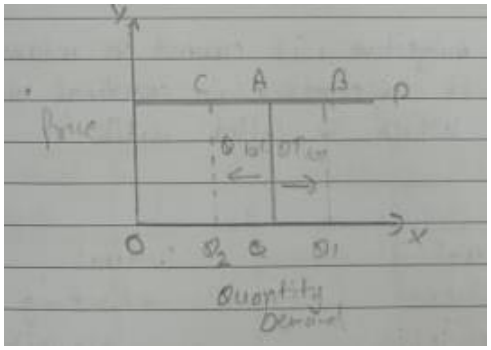
4. Highly elastic / More than unitary demand



When change in quantity demanded in response to change in price of the commodity is such that total expenditure on the commodity increase. When price decrease. It shows & change quantity greater that percentage in price because of its Dc become more flater than compared to Unitary DC.

5. Perfect elastic Demand (ed = ∞)

In this situation, demand is changing but the prices of a commodity remain constant. It can be seen in the DC. DD is horizontal (parallel to x-axis) that shows increase and decrease in demand doesn't affect the price of commodity.



DEMAND ANALYSIS

1. Utility Approach

It is also called cardinal approach. commodity approach A consumer demand for a commodity depends upon the utility he get from it. His aim is to achieve maximum satisfaction which is broadly called state of consumer equilibrium.

Q.1 What is utility?

ANS. It is the power or capacity of a commodity to satisfy human wants. it is a power of commodity, to satisfy human wants. It is a want satisfying power of commodity.

i) It depends upon intensity of wants for a commodity.

(ii) Utility is subjective, it cannot be measured for convenience, it is expressed in cardinal number like 1,2,3 which is called utils.

- Cardinal in number unit called utils
- Ordinal in ranking no unit

Q.2 How many kind of utility?

ANS. There are three kind of utility.

1. Total Utility
2. Marginal Utility
3. Average Utility

1. Total utility

It is the sum of total of all the utility derived from all the units of the commodity. It is the sum of marginal utilities associated with consumption of the successive unit . So It expressed as TV = +MV When only one unit of a commodity is consumed TU=MU

2. Marginal utility

It is the addition to total utility by consuming an single additional unit of commodity. It is expressed as $MU = TU_n - TU_{(n-1)}$

Total utiles which results from a unit increase in consumption.

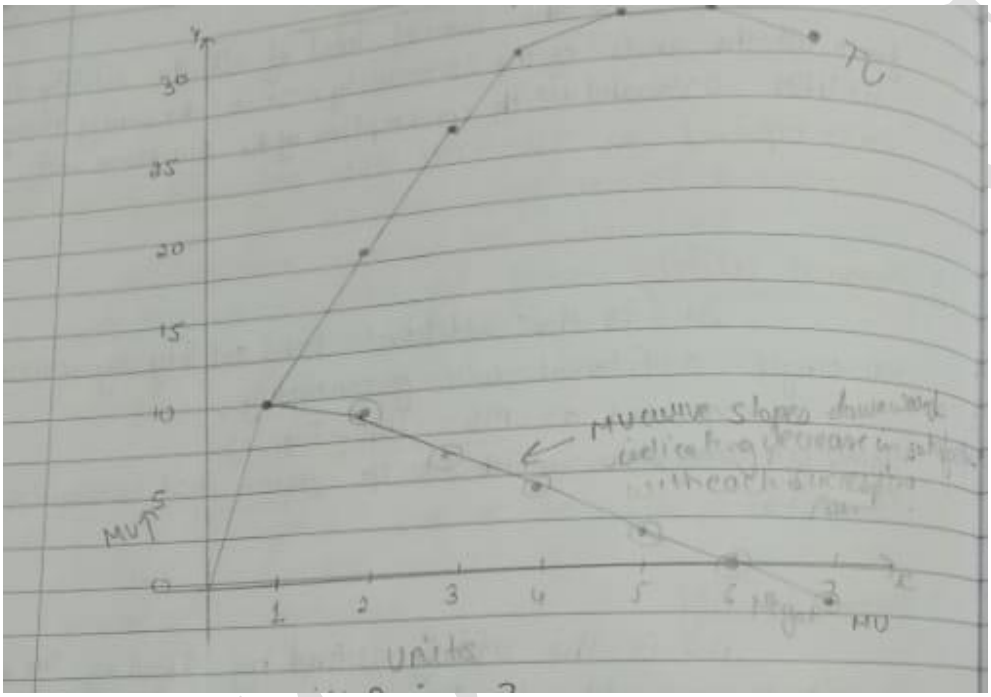
3. Average Utility

AU is the utility derived by dividing the number of units a commodity to the total utility derived by the consumer

Formula AU=TU (no. of units)

Example:-

Units of apple	TU	MU	AU
1	10	10	10
2	18	8	9
3	24	6	8
4	28	4	7
5	30	2	6
6	30	0	5
7	28	-2	4



Q.3 Explain DMU with Diagram?

DIMINISHING MARGINAL UTILITY

This law is the foundation stone of utility analysis The law states that or "As more and more unit of a commodity are consumed, marginal derived from each successive unit goes falling."

This law based on following assumption:

1. **All the writs of the commodity should be Homogenous**

The law will operate only when all the units of the commodity consumed by the consumer are homogenous identical in quality & size.

2. **Adequate and suitable Quantity of Consumption**

It followed when the consumption of various units of a commodity are being should be adequate . A suitable in quantity.

3. **Continuity in Consumption**

The law will apply when consumption of Various unit of a commodity are being consumed continuously. If there is gap between the consumption of unity of the commodity and another unit of the commodity the additional by consumer will increase.

4. **No change in the Mental State of Consumer**

The law operate when the mental State of consumer doesn't for e.g. consumer has taken a utility he

is deriving from additional units of chapati will ↑ because his hunger.

5. **Paice of the commodity & its Related Goods Remain Constant**
6. Income, Habit, Taste & Preference of the Consumer doesn't change
7. Want should be Single one & Not multiple want
8. Applies to pleasure Economy only
9. Mariginal utility of Money Remain constand

Exceptions to the law

1. **Consumption of very small units of commodity :**

DMU violate when the consumption of small unit of quantity.

For example:- given one drop of water to thirsty person

2. **Rare commodities, Monuments & Antiques -**

DMU doesn't apply in those cases where people collect rare Commodities like monuments, antiques, old coin, document stamps etc. Those thing included in hobbies So that MU increases instead of decline.

3. **Classical, Music, Gazals, Poemete**

The DMU violated in those cases classical, Music, Gazals, poem because. The audience will enjy more by listening& the law will not operate.

4. **complementary goods**

This low violate on Complementary goods like cars & petrol. They are jointly demanded because it applies to single commodity only.

5. **Miser Men**

This laws not apply because their aims is to accumulate more & more of wealth of money. The additional unit collect by them given more level of satisfaction.

6. **Alcoholic Drinks**

No apply because Drunked takes additional pagrof wine his Satisfaction goes increases.

7. **Increase the number of users**

This law not apply when number of consumer increase day by day like telephone, the demand of telephone increases day by day but utility is also increases instead of decreases.

8. **Personal Hobbies**

The law is not apply for example a person have hobbies of Collecting old coins, did photos additional collection give more level of satisfaction.

Reason of operating the law

1. **Safety of want**

As we known that human wants are unlimited 4 resources are limited. A particular want can be satisfy at a particular point of time. When a consumer consumes different unit of commodity, continuous basis the additional utility, got decline he gots zero or me after some time negative. When he gets Decline it means. Saturation point reached & after that he would like to consumer additional unit of commodity.

2. **Intensity of Want Declines**

Utility of commodity depend on Intensity want. As a consumer consumer additional unit the intensity of this want goes down& decline.

3. **No perfect substitute of Goods**

For example bread & butter are consumed in a ratio of the two will give you DMU.

4. **Nature & Human behavior**

It is the nature of human behavior that a consumer will consume more of those goods which he has not consumed & less of those goods the has already consumed.

5. **Variety of Uses**

Commodity which have alternate uses in our daily life. The use of commodity depends on priority for particular use.

Indifference Curve / Ordinal Approach

A Consumer can rank various combination & of goods & services in order to his preferences.

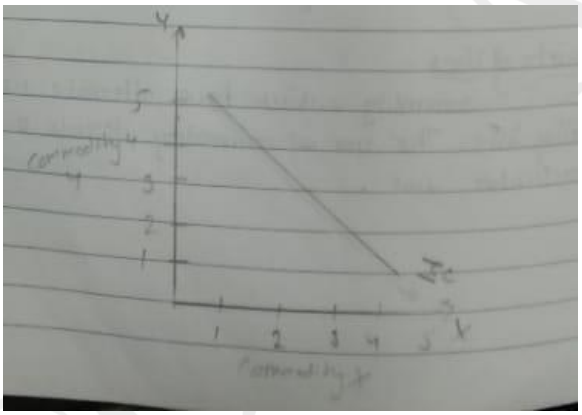
You Example. A consumer consumes two goods like Apple over orange or orange over apple.

He is indifferent between both apple & orange both are give some level of satisfaction."

Meaning of IC curve

it's the the is given to the graphical representation of various alternative combination of two Commodity given the same level of satisfaction. A consumer is indifferent to these various combination because the level of satisfaction is same.

Combination	Commodity x	Commodity y
A	1	5
B	2	4
C	3	3
D	4	2
E	5	1



In the above diagram & schedule, it can be observed that goods is sacrified to gain x. Consumer is indifferent between the two commodity. All the giving them same level of Satisfaction.

These lovel of satisfaction showing in graph. According to which IC becomes convex to the origin, downward slopes left to Right.

Marginal Rate of Substitution (MRS)

It means at which change in one commodity, relation to one change in other commodity. The Rate of which one commodity is exchanged with other so that level of Satisfaction is some

- what are the characteristics of IC curve? Characteristics of IC

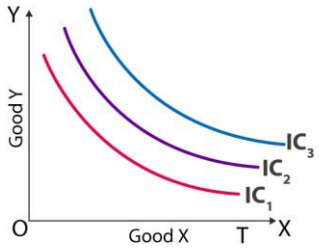
1. **All the combination of on Ah Indifference curve Give some level Satisfaction**

with differents points or combination of two commodities

2. **A Higher indifference curve shows higher level of satisfaction**

Shaan in daigram they can be in this order like preference Like

$IC_3 > IC_2 > IC_1 > IC$



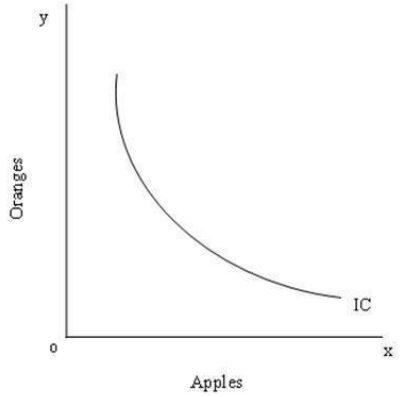
Indifference Map

3. **IC curve slopes downward to the Right**

Because consumer has to reduce the consumption of one commodity if he increase the consumption of other commodity.

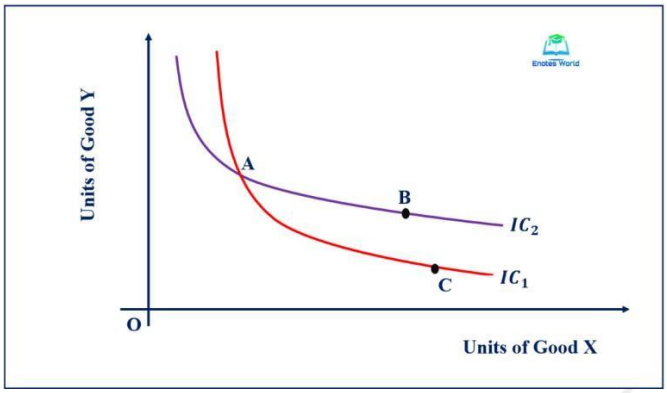
4. **IC is Convex to origin**

"Because the application of Diminishing marginal Utility Rate of Substitution to get the same level of satisfaction. an individual consume has consume more commodity & sacrifice by Commodity.



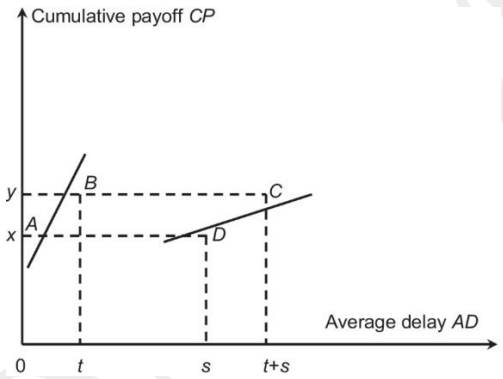
5. Two IC curve don't Intersect each other

Because they represent different level of satisfaction IC curve show same level of satisfaction.



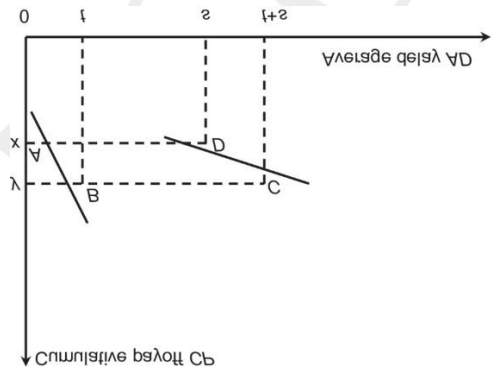
6. An Indifference curve neither touches Horizontal axis Nor Vertical axis

Because it means the consume very large commodity X &zero another commodity y.



7. IC curve Not Parllel to each other

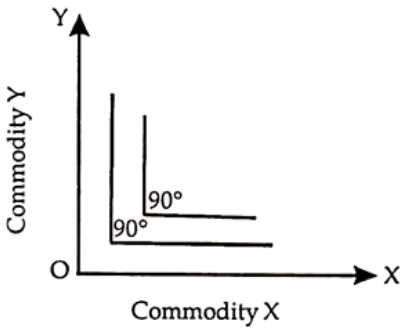
IC curve slope downward to right or have negative slop.



8. Perfect Complementary Good have L-Shaped IC

In case of those complementary Goods which are jointly demanded like bread & butter.

Diagram 9

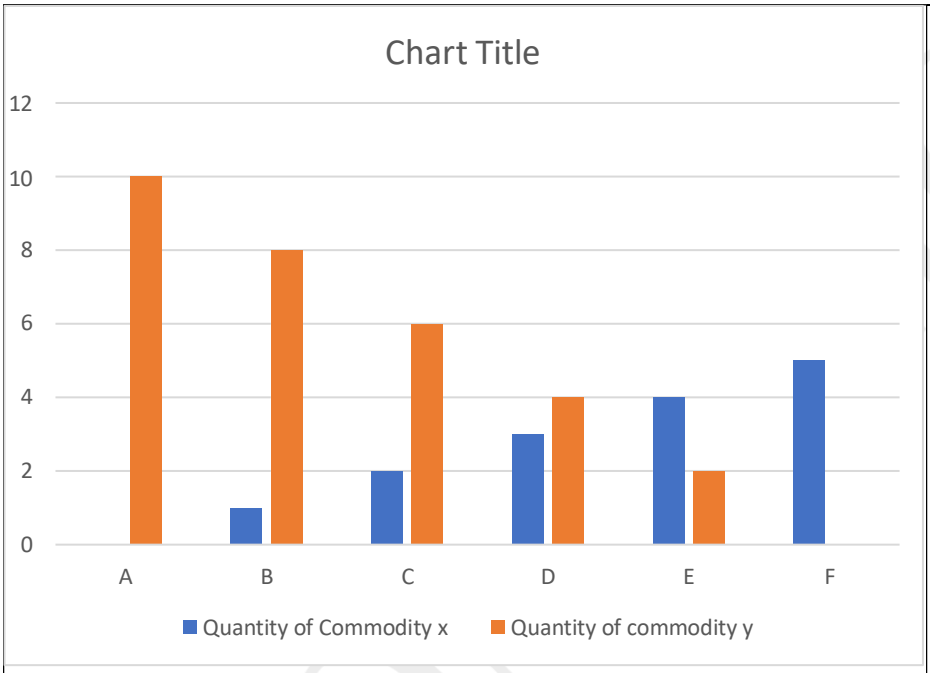


BUDGET LINE OR PRICE LINE

It is also known as expenditure line, consumption possibility line, price-income line.

Budget line shows the various combinations of tow commodities that can be purchased by the consumer with his given income.

It tells us the consumer budget as well as the relative price ratio.



	Quantity of Commodity x	Quantity of commodity y
A	0	10
B	1	8
C	2	6
D	3	4
E	4	2
F	5	0

Assuming P_x = Rs. 2 per unit

Price y= Rs. 1 per unit

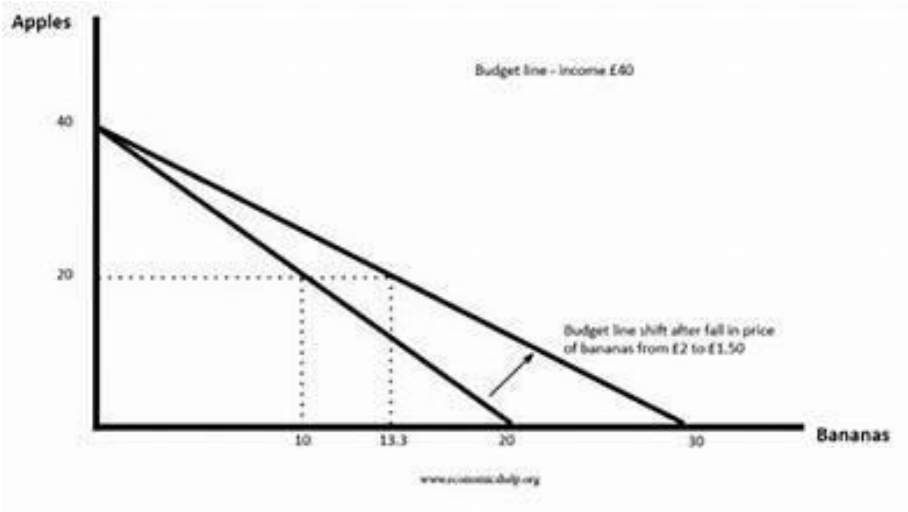
Money income = Rs. 10

Change in Budget line:-

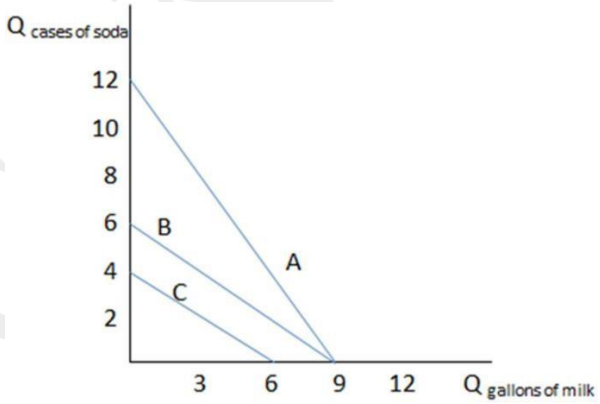
Budget line or Price line changes when the price of either commodity X changes or price of commodity Y change & the money income of consumer changes.

In these cases

Case I.



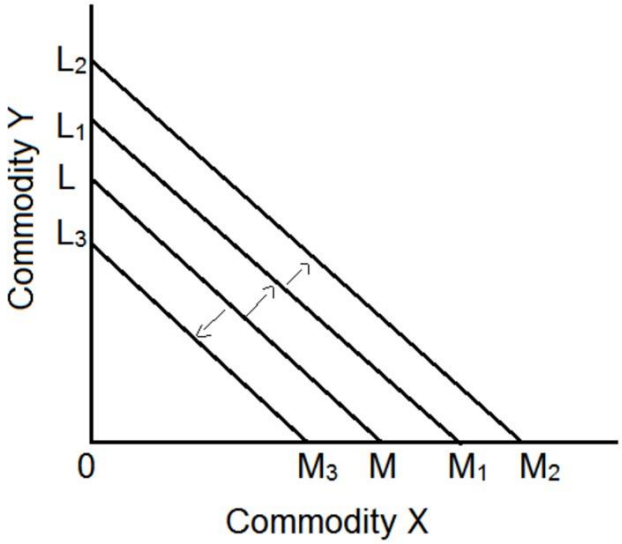
In this cause the price of commodity Y des not change while price of commodity x changes. If we move from o to X we see that price X & decreases & reverse case price.



In this case the price of commodity x does not change while price of commodity Y changes. if we move from o to Y we see the price of Y decreases & vice versa.

In this case the money income of the consumer change with the change in income of price line are drawn parallel to each other. All the lines right AB price unshow higher level of money income of the Consumer.

Figure 2



CONSUMER EQUILIBRIUM

Each individual consumer aims at maximization of his satisfaction with his given income.

❖ **Assumptions:**

1. A consumer has his indifference maps showing different combination of two commodities with given Scales of preferences
2. Consumer has money income which is given &it is spent on these two goods only.
3. The prices of commodity are given.
4. All the units of each commodity are homogeneous & divisible
5. Taste, fashion, habit don't changes diving the period under consumption
6. Consumer is a rational human being & the spends his income rationally on the two commodities.

❖ **Conditions of consumer equilibrium:**

1. At the point of equilibrium the budget line or price line should be tangent to in difference wine.
2. Slope of indifference curve (MRS*y) must be equal to slop of budget line as

   MRS *Y = Px/Py

3. IC curve should be convex to origin or MRS *Y should be diminishing.
4. The multiplication of quantities of X&Y commodities with their prices should be equal to total money of the consumeras given below

   QxPx=QyPY= Y (Money Income)

Consumer equilibrium with IC curve:

When IC is tangent to or touch budget line then consumer is in equilibrium

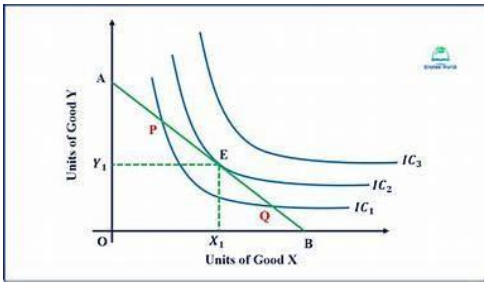
or

when the MRS of goods X & Y is equal to the ratio to b/w the prices of the two goods.

MRSxy = Px/Py or

Change in x/ change in y = Px/Py

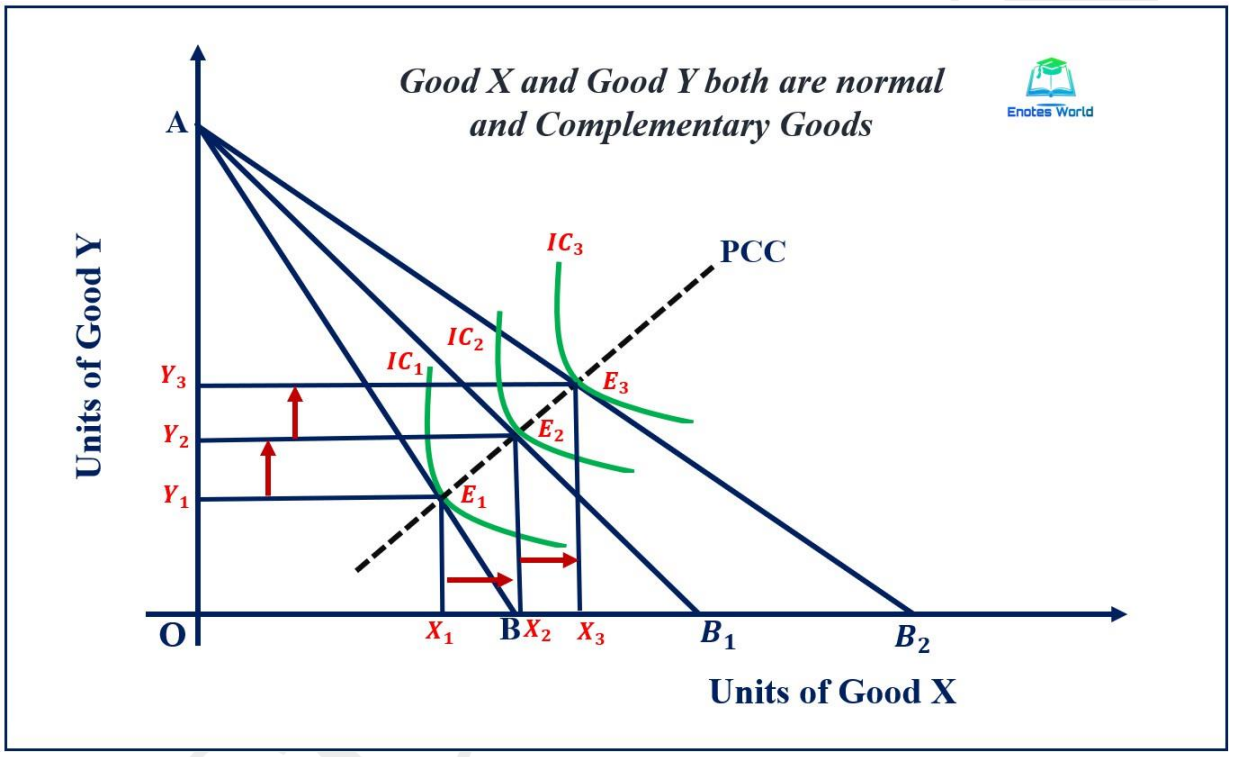
Slope of IC =Slope of Budget line



Price Effect & changes

When the income of consumer constant and the quantity of two commodity are changes on account in their price ratio. When the price of one commodity decreases or increase it will increase or decrease real income of consumer.

Price Effect (PCC)



DEMAND FORECASTING

Risk & uncertainty are two essential features of business cycle. Business managers have to take correct decision & future planning keeping in new these two elements.

Professor **PHILIP KOTLER** has defined, "The company (sales) forecast is the expected level of company sales based on chosen & marketing plan & assumed marketing environment.

- **Characteristics:**

1. It explains potential demand for a commodity in specified future period of time.

2. It is based on expectation about potential demand for commodity in future.

3. It can be expressed in Physical & monetary terms.

4. It can be micro level (firm) as well as macro level .

5. It is based on past achievements of a business industry.

6 Different techniques of statistics are used for interpretation & analysis of future demand under the prices of demand forecasting.

7. It based on todays business planning expecting desired result in future.

8. It is generally carried on with the experience based on conjecture (o statement believed to be true based on observation)

Objective of Forecasting

1. Short Run
2. Long Run

1. Short Run objectives

a. Production Planning

Demand forecasting helps business firms to formulate Production Planning. It avoid the over production and under production which lead to fall in price & rise in prices.

b. Availability of Laboure force

Due to this, we can estimate the type & number of worker to be employed in futurein the business firm Skilled & trained labour force can be made available with the help of demand forecasting.

c. Availability of cheaper Raw Material

It helps to provide raw material at cheaper rate without any interruption in its supply. Due to this we can manage & Raw Material supply on continuous basis.

d. optimum utilization of Resources

The installed capacity of plant & machinery Should be utilised to the maximum output. It will dead to Increase the production with the changes in the quantity demanded without any interprertution.

e. formulation of pricing policy

Pricing policy should be formulated in Such a manner that not be affected boom & depression of Business cycle.

f. Sales targeting

Sales volume & sales price on the basis of region are known through Demand forecasting. Sales performance in various region are evaluated of target for each region are fixed in order to boost sales & financial & non-financial incentive. The competitiveness of firm are also be judged through the technique of forecasting .

2. LONG RUN OBJECTIVES

a. Planning to Setup New firm & Expansion of Existing firm

it analysis the long term quantity demanded of a commodity which is to be sold in the market. The new form setup on the basis of demand forecasting, old firm have to take into consideration estimates made under Demand Forecasting so that their expansion planning can be effectively made.

b. Long Run Input planning

Every business firm has to formulate a plan relating to requirement of raw material & supply labour for long period of time. A plan will continuity production function & it is possible only when the tool of demand forecasting is used to estimate the demand for labour & save material requirements

c. Long Run financial Planning

It helps in mobilizing the financial resources for the business firms. Sound financial planning is must for Success the business firm. Adequate finance & at the reasonable rate of interest are the no of basic requirement for the long term financial planning

d. **Cost Analysis**

It provides the information regarding the future quantity demanded of a commodity. The quantity demanded is related with the scale of operation, it affect cost of production.

Steps of Demand forecasting

1. **Determination of objective**

Determination the objective of a process of demand forecasting without objective which type of demand forecasting undertaken.

2. **Determination of Time period**

The duration of demand forecasting is to be determine after determination of the objective, Demand forecasting may long period or short period.

3. **Scope of demand forecasting**

It steps takes that Scope of Demand forecasting micro level, macro level, industry level or firm level.

4. **Determination factor Affecting the Demand**

It should be analyze the various factors affecting the demand of that commodity which is estimated. Dependent &Independent variables are studies with statistical tools.

5. **Collection of Data**

It collects the statistical data form diferent Sources related to different Variable, it may be primary data either be a secondary data."

6. **Knowledge of Market Condition**

The various market structures require different process & technique of demand forecasting. These may be perfect, imperfect, price determination, oligopoly, monopoly, monopolistic.

7. **Type of forecasting**

it should be based on physical & monetary forums.

8. **Nature of Commodity**

We classify the nature of commodity it may, be durable goods, capital goods, export goods, new product.

9. **Method of forecasting**

Demand forecasting based on various method and technique of forecasting like statistical method, Graphic Echometric etc.

10. **Conclusion & Inferences**
11. **Review of Performance**

It provides the feedback for future amendment in the plan relating to production, input & finance etc. Production to be kept in mind for the future course of action are also suggested by steps of forecasting.

METHOD OF DEMAND FORECASTING

1. Experience based conjecture (Historical analogy method)
2. Survey method based on buyer's opinion
3. Graphic method
4. Trend projection method
5. Method of Economic indicator
6. Echometric method
7. Collective opinion based on method

1. Experience based conjecture (historical analogy method)

This is a traditional method of Demand forecasting. A person who is either a manager or an accountant has been working for a long period of time in a business firm. He is experience with the working the business and he knows the determinants of demand for his product on the basis of his experience, he estimates regarding the future demand for product of the business form. He will take consideration his experience relating to the demand of commodity during the last year variation due to climate change, culture, local Social, economic, political this process help a business to estimate the future demand & it will be more of less correct.

2. Survey Method Based on Buyer's opinion

Short Run forecasting of a commodity, can be based on the buyer opinion survey method,

- it is the easiest method of forecasting
- under this method the buyers of a product are contacted& they asked regarding the quantity demanded of the product at different levels & the quantity demanded of each buyer is aggregated & it will provided the total demand of in the future.
- **Two ways (Census survey method)**
  When all the buyers are asked questions based on persona contact & filling of questionnaire the quantity demanded& invention of the consumers.
  This method takes more time, money & energy
- **Sampling method**
  Under this method samples of for buyers are taken necessary informationin the form of personal contact or filling the questionnaires.
  This method take less time, money& energy.
- **Merits**
  It is an adequate method for short period of demand forecasting.
  When the number of buyers is very small & they are ready to furnish correct information.
- **Limitations**
  It does not take into consideration the long period demand forecasting.
  Census Method of survey used for demand forecasting involve more time, money & energy
  In sampling method, in volves sampling error in the estimates of the quantity demand for a commodity at different prices.

3. Collective opinion-based Method (with a lounge group of people)

When the demand forecasting of a commodity its undertaken to know the collective opinion of all persons concerned.

- Each Salesman in his area or region collects the information regarding the sales of the commodity & such forecasts are submitted to sales manager.
- Forecasts are desirable because Salesman are field-officer and they have direct personal contact with the consumer or buyer of commodity.
  All the estimates of salesmen are collectively aggregated & on the basis of such estimates the total sets of demand forecasting. Estimates of all salesmen are required & they are studied with reference to the nature & quality of commodity, exp on advertisement competition & long term variation in the market.
  Collective opinion of all section of society by salesmen, area managers, sales managers, production managers.
- **Merits**
  This method simple & economy becz statistical technique and survey method not used.
  It based on opinion of salesman & other person who are closely connected with buyer of commodity.
  More useful & estimating the demand for new product.
- **Limitations**
  It cannot be used for long demand forecasting it use only for shout team Demand forecasting.
  It is subjective because salesmen collect the information from buyer in their area& there is possibility of personal bias.
  The estimator made by them may not be correct & reliable.

4. Graphic Method

When the dependent & independent variables of goven period are plotted on a graph paper & present in systematic manner. The period is taken as independent & Quantity demanded is assumed as a dependent Variable. There is direct relationship between the demand for a commodity & with the increase in industrial production.

- **Mexits**
  It is simple as with the help of the figures for Various year& can be drawn a graph line.
  The demand estimates may be real or actual because the trend. line is based on present trends.
- **Limitation**
  It based on subjective information
  The expansion of the curve cannot be done on any certain bars.

5. <u>Trend Projection Method (Trend analysis method)</u>

Graphic method of Demand forecasting, casting are not systematic it is based on past observation & the curve draw on the basis on observed data cannot be correctly expanded. Trend at projection based on time series data on sales.

In individual business firm may collect time-series data of its sale New firm also used such data can find out the trends.

- Determining the trend of sales by analyzing part of consumptions and sales sad statistics.

- future consumption & sales are trend projected day using extrapolation trend.
- **Merits**
  It is simple & involves less time, money & energy. There is no need of conducting enquiry from the buyers.
  The conclusion drawn on the basis of this method are correct provided the determinant of demand remain constant.
  It based on past statistics available at the earliest`.
- **Limitation**
  It is based on the mathematical formula & equation which is complicated to calculate.
  It based on not realistic & practical assumption.

6. Method Based on Economic Indications

- It analyzed on the bases of business indices.
- it based on past business trend & fluctuations.
- It used you demand forecasting may be national income
- Consumption pattern, per capita miome financing of five year plans, cost of living indices, industrial production indices, agricultural production indices.
- It is based on secondary source of data.
- Firstly find out the economic indicator relating that commodity about which forecasting is being under taken.
- It is difficult to find out the economic indicators.
- **Merit**s
  It simple, save time, money & energy while calculating the demand forecasting.
  Other thing being equal demand forecasting based on economic indicator is more reliable.
- **Limitation**
  It for all types of goods are not easily available.
  It required the specialized knowledge in the field by Mathematics & Statistics.
  It not based on realistic es

7 Ecometric Method.

- It is recent origin particularly after world war 2.
- It model studies the causes and effect relationship between dependent & independent variable
- If there haves change in casual variable not change In Demand. If them is change in functional variable change in Demand also.
- **Merits**
  It based on logic, more reliable, asccurate & acceptable.
  It used computers so that less possibility of error
- **Limitation** This method is complicated because it uses echometric models. Itmore expensive as it uses Computers and services of experts in the area. This method is popular in developing countries technical experts in the fields.

Supply

SUPPLY

Supply means that commodity supplied at price in given quantity over a period of time.

it related to three element

> Price of the commodity

> Quantity of the commodity.

>Time

Q.1 Distinction between Stock & Supply

ANS. Both terms have different and different meanings.

Stock of a commodity refers to the quantity of that commodity which is available in market in given period of time

Supply means the part of total stock of that commodity a firm is ready to supply at particular prices.

Supply function

It refers that functional relationship between the price of that commodity, Price of related goods, the prices of factor of production, technology, input of producers, taxes etc.

QSx= F (Px, Py, Fp, T, N, Txy)

F= Function

Py = Price of commodity

Fp= Factor Prices

T= Technology

N= Natural Resources

Tax= Taxx and Subsidiaries

K= Production of technology

Law of Supply

There is a direct relationship between quantity supplies and prices other factors Remain Constant.

If price of that commodity is increases then quantity supplied also increase.

If price of commodity is decreases then Supplied also decreases.

Assumptions of the law

1. Price of factor of production remain constant
2. The income of buyer and seller does not change
3. Preference, faster and habit of buyer & selles remain same.
4. The technical knowledge of producers and sellers remain same.
5. Price of related goods don't change.
6. Expectation about change in future price do not change.
7. Smaller change in prices of the commodity may also bring change its supply.

Supply Schedule

A schedule showing different quantity supplied of a commodity producer or a seller at different prices during a given period of time.

There are two types of supply schedule:-

1. Individual Supply Schedule

[it deal with supply of commodity by an individual producer different prices]

2. Market Supply Schedule

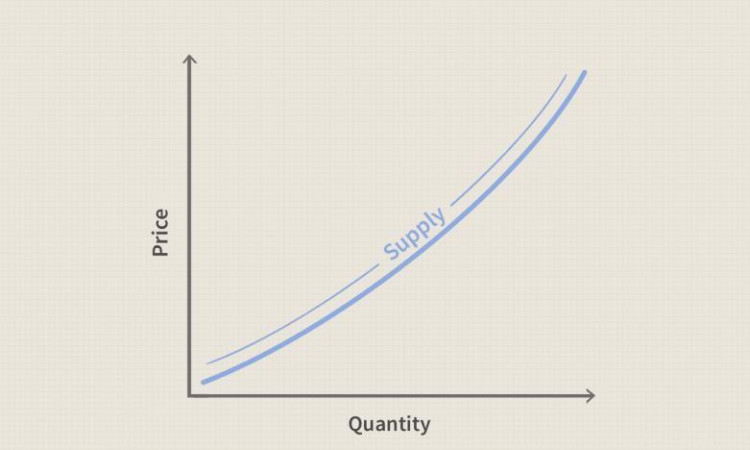
[it deals with supply of commodity of in market at different prices a period of time.]

Supply Curve:

Supply were shows the quantity producers will wish to make & to offer for sale at various alternative price of a product.

Individual Supply Schedule:-

Price	Quantity
600	100
700	200
800	300
900	400



Q.2 Why does the law of Supply Curve.

ANS.

1. **Profit increases with increases in supply**

When the prices of a commodity increases then more will be the sell of that commodity or more quantity of that commodity will be sold by producer because it increase profit of producer. In long sun new producers enter in the industry with new technique of production are adapted and all factor of production variable. They will maximise the use of resources to the installed capacity during short pored.

2. **Fall in price reduces the profit**

When the prices are low it will reduce the profits of producers or seller of a commodity & the supply reduce. During short period, the supply is reduced by reducing the use of various inputs and the long run production stopped.

Exceptions to the Law.

1. **Future expectations of prices**

The law of supply does not apply where fall or rises in the price in future. Incase prices rise in future the supply is reduce while fall in prices in future will increase in supply, for example shared & debentures.

2. **Goods of arts**

Goods of arts will not increase or decrease with the increase or decrease in prices. Artist will not increase or decrease supply of his article on the basis. pries

3. **Actionable Goods (precious goods) "limited supply")**

Those goods which are suctioned the price will not increase because the supply of such goods. are predetermined.

4. Supply of Labour

The supply of labour is also not affected by rate because the source of supply of labour is growth of population after a point if the wage rate is raised worker would prefer to leisure rather than work & if it the supply of Laboure will be backward bending supply product.

5. Agricultural product

like oil, seeds etc can not be increased or heavy rains these products are shortage in supply & their price increase but unable to raise their output. Menu prices will not increase the supply of product.

Movements in Supply Curve

1. Extension in Supply

- When the supply extends with increase in the prices of the commodity then it is called extension in supply.
- Othe factor remains constant. The change in supply leads to movements in same supply curve upward shift means extension.
- If the Price increase, then upward shift

- When rise in the price of a commodity then quantity supplied also in increase then extension in supply curve.

2. Contraction in supply

- When the supply contracts with the fall in the prices of a commodity then it is called contraction in supply.
- Other factor remains constant change in supply leads to movements in same supply curve downward means contraction in supply curve.
- If price is decreasing then downward shift.

- When fall in the price of a commodity then quantity supplied also decrease then contraction in supply curve& downward shift.

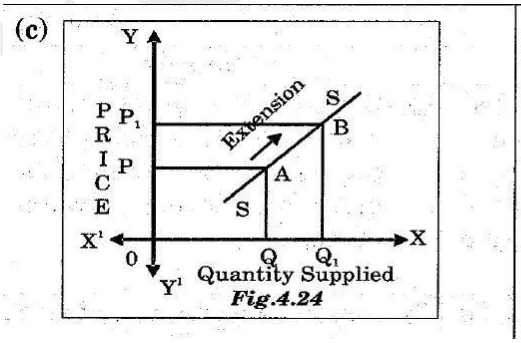


Fig.4.24

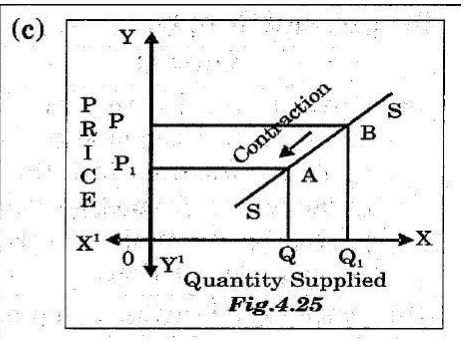


Fig.4.25

INCREASE OR DECREASE IN SUPPLY CURVE

When supply of a commodity change due to other factor affect supply except the price of that commodity there will be increase or decrease in supply curve. "Factor affecting factor of production, changes in technique. of production, price of related goods, taste, habit etc.

1. **Increase in Supply**

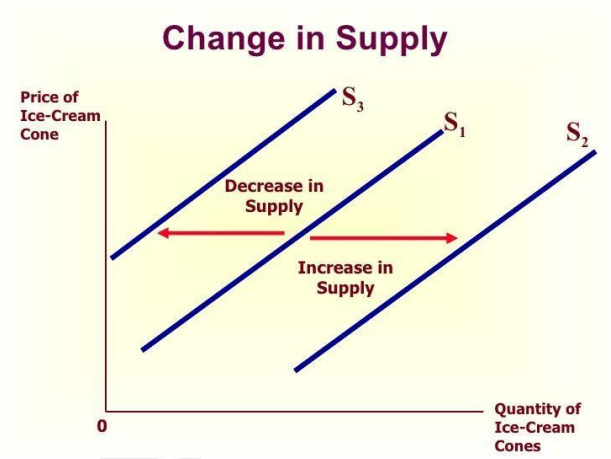
- When other factor change in quantity supplied increase it is called increase in supply.
- When increase in supply, the supply curve shift to rightward from the original supply curve.

- Shown in given diagram if increase in supply the rightward shift in supply curve.

2. **Decrease in supply**

- When other factors change in quantity supplied decrease it is called decrease in supply.
- When decrease in supply, the supply curve shift to leftward from the original supply curve.

- Shown in given diagram if decrease in supply then leftward shift in supply curve.



Determinants of Supply

1. **Price of commodity**

The main factor affecting the supply of a commodity is its price. if in crease in supply then rise in price. If fall in price then decrease in Supply. The volume of profit depends on the Price

2. **Price of Related Goods.**

The supply of commodity affects the rice of supplementary & Complementary Goods. When price of related goods will increase then increase in supply because seller produced such commodity & vice versa.

3. Price of input & factor of production

When the price of factor of production increase like labour, raw material, capital, land, then decrease in supply because it reduce the profit if the factor of production decrease then rise in supply because it increase in the profit. Hence supply affects the change in input production.

4. State of technology

A new technology reduce the cost of production & it will increase the profit of the seller & he will increase supply also and Vice versa in outdated technology.

5. Means of Communication and transport

If cheap, good and early means of communication and transport are available then increase in supply & lack of developed state of communication and transport adversely affect the decrease in supply.

6. Goverment policy

Those goods which have low rate and subsides will increase in Supply if there is high rate tax and No subsidy is given will decrease in supply.

7. **Wars & political condition**

When there is war condition in the country the supply of good reduced if there is no war condition in the country the supply of good in increase.

8. Natural factor, (Floods, Drought, heavy Rainfalls)

When there are natural resources is abudant and condition are favorable the supply of goods increase and vice-versa. Better Monsoon increase the agricultural output because there are several industries which product are based on agriculture, like cotton, oil mill. jute etc. Natural calamities adversity affect the Supply.

9. Business Conditions

Business Condition in the country also affect the supply of goods & services. During inflation rise in price of will rise in Supply but it lags the purchase -power of people of one there is less supply & vice versa because quantity demand lesser than quantity supplied.

10. Preferences of Sellers and producde

Supply of goods is increase when producer are earn more profit and vice versa.

11. Collusion between sellers and producers

if producers and seller have formed any collusion then they decrease in the production & the supply will decrease and vice versa.

Elasticity of Supply

It is the measurement of the supply of a commodity changed due to change its price

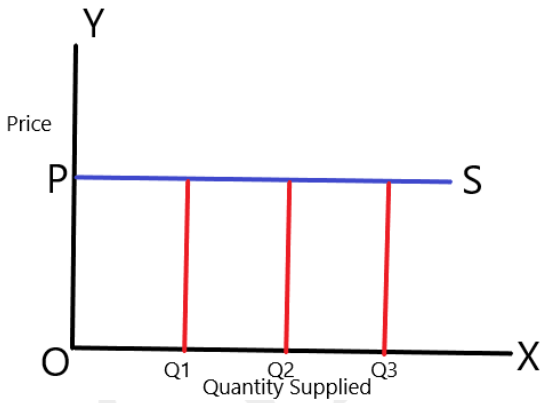
Es = Proportionate in Quantity Supplied/propionate in price

$$\frac{QS/P}{P/QS}$$

❖ **Degree of price elasticity of Supply**

1. **Perfectly elastic Supply (Ex = ∞)**

When the supply of a commodity increase to a large extent with the a slight change in its price.



It refers to a horizontal straight line supply curve which is parallel to x-axis. price remain constant & Quantity Supplied increase

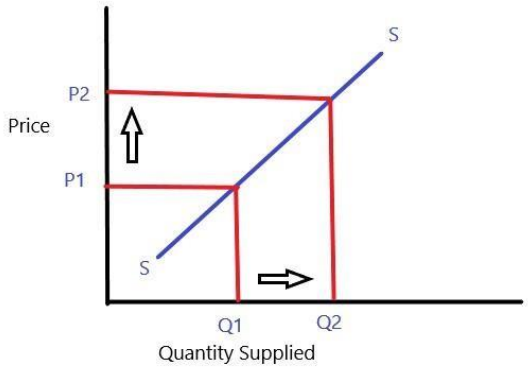
2. **Highly elastic Supply (Es>1)**

When the supply of a commodity increased more than in proportion to change in its price is called highly elastic Supply.

3. **Unitary Elastic Supply**

When a straight line positively sloped supply curve start from origin

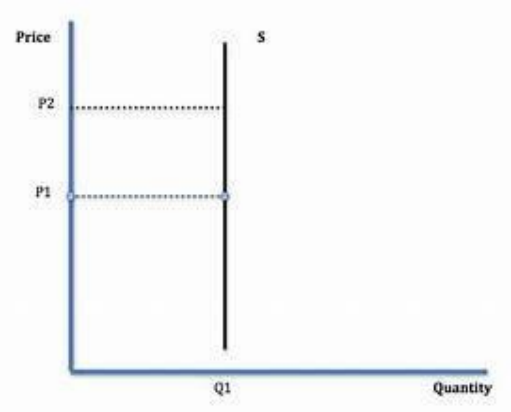
Quantity Supplied equal to change in price.



4. Perfectly inelastic Supply

It refers to a vertical straight line supply curve which Parallel to Y-axis.

It shows that supply remain constant whether the price increase or decrease.



5. Highly inelastic Supply (Es<1)

When in quantity supplied of a commodity is less than in proportion to it's change in price the supply.

Factor affecting Elasticity of supply

1. Nature of Commodity

The elasticity of supply depends upon the nature of input used for the production of commodity. If commonly available inputs are used supply will be elastic. If input used are not commonly available then supply will inelastic.

2. Production system and technique

If production system and technique are simple the supply of goods is elastic contray to it when the production system and technique are complicated then supply of goods cannot be rise easily and supply will be in elastic

3. Time factor

Longer the time period, greater will be elasticity of Supply because over a long period of time factor are easily available. On the other hand if there is a short time then Supply of commodity will be inelastic.

4. Law of production

When DMU operating the cost of production & volume of profit reduced and increase in price of goods, the production cannot be increased, and vice- versa. Hence supply is elastic where the law of increasing returns is operating.

Cost

Cost means that the amount which spent on production Junction before it sale.

Types of Cost

1. **Money Cost**:

According to Accountant Point of View it is that type of cost which calculated in monetary terms it is the cost which the expenses including namely prices of raw material, wages of labour, interest on capital; rent on land, Salaries of Manager and Normal to Profit of entrepreneur.

Explicit Cost	Implicit Cost	Normal Profit
These cost consist of all the payment made on the basis of contrast to various factor of production employed it is a firm expenditure & private cost like rent, wages, interest salaries and selling cost incurred during a given period of time. The record maintenance by accountant.	Invisible cost of production. The payment made to the owned factor of production interest on owned managers . Building, furniture & other infrastructure of the owner of the firm part of implicit cost.The calculation of IC is not an easy task.	It is also part of money cost. It is the minimum remuneration which a firm should get up order to remaining an industry. It is over & above to implicit & explicit cost of the firm. Motivational factor to keep production continue.

Money cost= Explicit Cost+ Implicit Cost+ Normal Profit

2. **Real Cost (Sociologist)**

He is concerned with pains, sacrifices and effects made by society in the production of the commodity **According to Prof. Alfred Marshal** all call physical & mental labours in production activity directly or indirectly involved, the pain and sacrifice made by owner of capital. Water Pollution, Air pollution, industrial diseases, emergency of dirty colonies, pressure on transport facilities etc. these are causing of social cost.

Real Cost = Sacrfices + Effort + Inconveniences + 3 Effect

3. **Opportunity Cost (alternative Cost, Transfer Income, Transfer Cost**

The next best alternatives production of the commodity. Acc. to opportunity cost production. of each commodity involves the cost in the form of sacrifices the sense that a commodity is not produced because alternative uses means sacrifice in an economy.

4. **Direct or Indirect Cost**

It is incurred directly on the factor of production. Any expenditure incurred on raw material &wages. This cost is easily identified & directly concerned with process of production.

Indirect It is incurred directly on the factor of production. Any Expenditure incurred on selling cost, rent of the building, depreciation of machine etc.

Indirect Cost = Total Cost - Direct Cost

5. Incremental Cost & Sunk Cost

Incremental Cost	**Sunk Cost**
When a business firm change its business activities on nature of its business. It is cost due to change in the level of business activity. For Example: A firm purchases new machinery	Which are not affect by the change in the level of business activity. These cost remains unchanged depreciation is the example when investment is made in a sick unit it is a bad debt because investment made by business manager may be recovered or may not be recovered.

Incremental cost= Change in cost- Initial Cost

6. Replacement Cost and Historical cost

Replacement cost	**Historical Cost**
When an old machine is replaced with a new machine and cost incurred in such replacement. Important for business firm where project are replaced & production in changed.	Is that type of cost which is based on purchase price of a machinery initially. Accountant point of view accountant show in his balance sheet at the original cost of a machine rather than the present cost purchasing in the market.

It play important role in decision making because it affects the total cost of business firm.

7. Fixed Cost and Variable cost

Fixed Cost	**Variable cost**
The cost which are fixed whether the production is being carried or there is no production. These costs are short run cost because they remain fixed to zero production to maximum produced. These costs borne by firm: Ex. General cost, indirect cost, rent on building, insurance premium, depreciation.	The cost which directly related to production of the firm . They are with production , when production is not carried on such cost will not arise. Cost of raw material, direct wages, expenses on fuel. These cost depends on the volume of output.

8. Short Run and Long Run

Short Run	Long Run
That cost which are concerned with the short run production of a firm. They are mainly two types: Fixed Variable	Long run cost are concerned with the long run production of a firm. All the factors are variable even the scale of of production can be changed.

Short Run Cost Curve:-

Total Cost	Average Cost	Marginal Cost
It is an expenditure incurred by a firm on the factor of production required for the production of commodity. TC= TFC+TVC TC change due to change in total variable cost because TFC remains constant. TVC zero if production zero.	It is per unit cost explain the relationship between cost & output in average firm. AC= AFC/AVC ACcurve decrease & remains constant than increase AC with increase in output.	It is an addition to total cost by producing an additional unit of output. MC= change in TC/ Change in Q

1. Total Cost

I. Total Fixed Cost:-

Those cost which remain constant when output is zero. it don't vary directly with the level of output. For example: Rent on building, Interest on Loan, Salary to Permanent manager,

TFC= TC-TVC

II. Total Variable Cost. (Prime Cost, Direct etc.)

It is refers to those cost which vary directly with the level of output, it remain zero at zero level of production increase wise TVC in same direction.

for Example = raw material.

TVC= TC-TFC

2. Average Cost

It refers to the per unit fixed cost of production.

It is inverse relation between output & average fixed cost.

The shape of average fixed cost is rectangular.

AFC= TFC/O

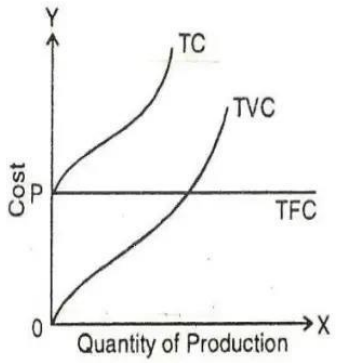
O= Output

Average variable cost

It refers to the per unit variable production of that commodity. AVC falls then increase in output the shape of AVC in U-shaped because operational the law returns design short period.

Short run output Relation Schedule

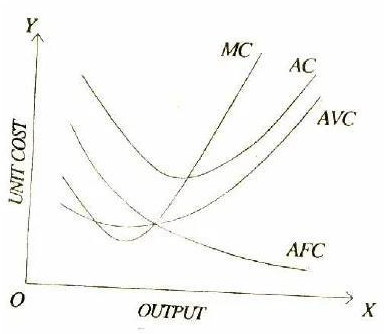
Output (Unit)	Total Cost			Average Cost			MC
	TFC	TVC	TC TFC+TVC	AFC TFC/O	AVC TVC/O	AC TC/O	MC
0	100	0	100	0	0	0	0
1	100	30	130	100	30	130	30
2	100	60	160	50	30	80	30
3	100	80	180	33.3	2607	60.0	20
4	100	90	190	25	22.5	42.5	10
5	100	100	200	20	20	40	10
6	100	120	220	16.6	20	36.6	20
7	100	150	250	14.3	21.4	35.7	30
8	100	190	290	12.5	23.7	36.2	40
9	100	240	340	11.	26.6	37.7	5.
10	100	320	420	10	32	42	8.



Cost output Relation during Long Run

Long period gives sufficient time to assumes managers to change even the scale of production. All factor of production variable, there is no fixed cost.

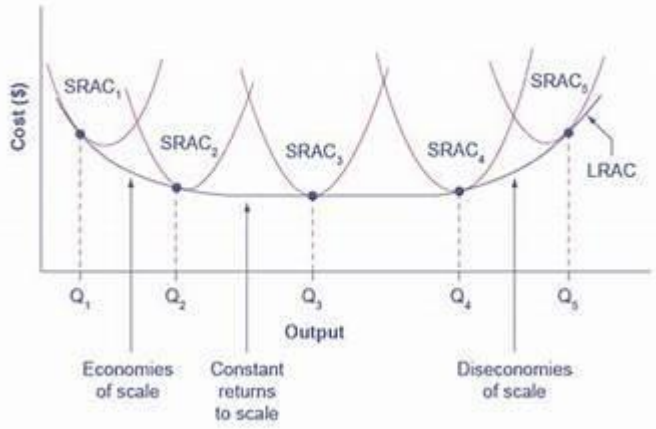
Short run cost curves



Long Run Average Cost

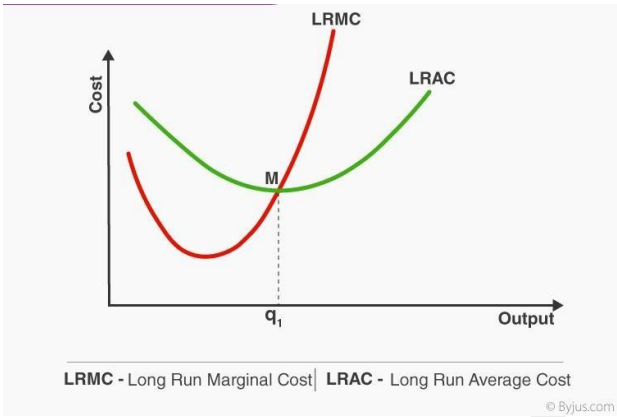
"In long run, all the factors of production are variable & the firm has a variety of choices to select the size of plant & factor of production.

it represent the average type of plants available of a firm



Long Run Marginal Cost

It is on addition to the long run total cost. When additional unit commodity produces.



Revenue Analysis

Cost + Profit.

Revenue

The amount of money the producer received in exchange for the Sale Proceed is known as Revenue it to directly influenced by sales level.

Total Revenue

It refers to total receipts from the sale of given quantity of a commodity, it is the total income of the form.

TR= Price * Quantity

P*Q

E.g. = Firm is selling 200 pen at Rs. 10 per unit price then TR is 2000.

Average Revenue

It refers to revenue per unit of output sold. It dividing the total Revenue by the number of unit sold by a firm

AR = TR/Q

For Example= The form revenue 2000 when 200 unit is sold.

AR will be 10

It is also determined the price of that commodity.

Marginal Revenue

It is the addition to the total revenue when additional unit of output to be sold.

MR= change in TR/ Change in Q

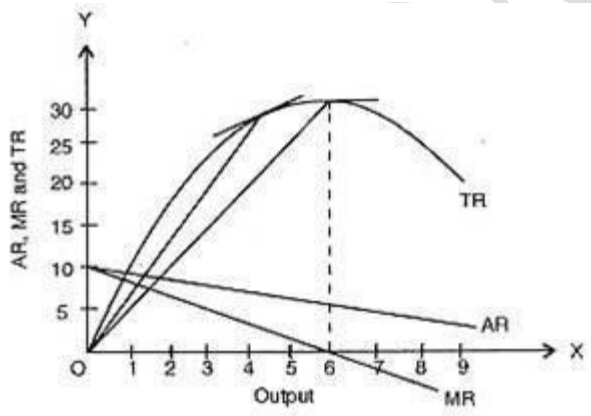
Change in TR= TR_n- TR_{n-1}

Inter relationship between TR, MR, AR

Units of output	Price	TR	AR	MR
1	12	12	12	12
2	11	22	11	10
3	10	30	10	8
4	9	36	9	6
5	8	40	8	4
6	7	42	7	2
7	6	42	6	0
8	5	40	5	-2

Relationship between MR, TR, AR

1. MR is +, TR increase
2. When MR Zero, TR as max. point
3. MR become – TR start falling
4. MR cannot be zero or – when price remain constant at all output.



AR and MR under perfect competition:

Under perfect competition, price remains constant, price AR& MR will be same. Demand curve horizontal to x-axis because there is large no. of buyer seller, homogeneous produst, price determined by a firm or industry the firm is price taken. Hence, there is one prices prevailing in the market.

AR&MR

Units of output	Price	TR	AR	MR
1	5	5	5	5
2	5	10	5	5
3	5	15	5	5
4	5	20	5	5
5	5	25	5	5

AR&MR under imperfect competition

Perfect competition is imaginary. Under imperfect competition the firm can increase it sales by reduce the price of product. AR & MR different in market structure.

Units of output	Price	TR	AR	MR
1	10	10	10	10
2	9	18	9	8
3	8	24	8	6
4	7	28	7	4
5	6	30	6	2
6	5	30	5	0
7	4	28	4	-2

Price Determination of Prefect Competition

It is the market structure in which is large number of buyer and sellers having homogeneous product and there is single price in the market.

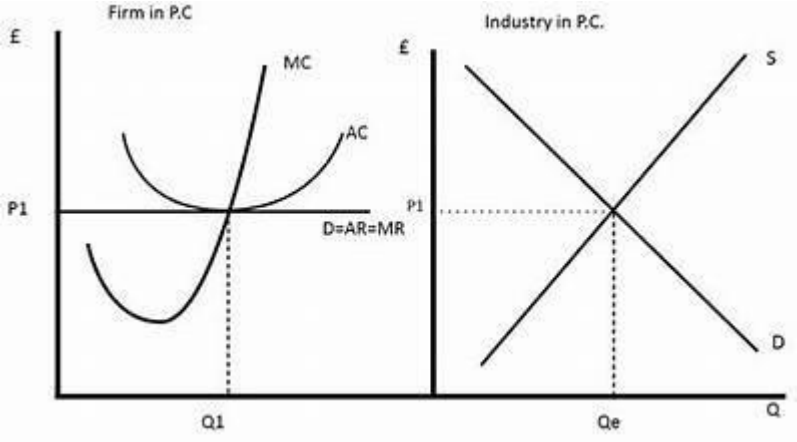
Characteristics:-

1. 1A Large number of buyer & seller because an individual seller or buyer is not in a position to influence the price of product and single price prevails in the market.
2. Homogeneous product
   All the firms or industry are producing homogeneous or identical product and the same is sold in the market.
3. Free entry & exit of firms in industry
   In perfect competition all the firm are free to enter the industry and old firms can leave the industry. because if there is profit new firms will be attracted to enter the industry and in case of they are free to leave the industry.
4. Perfect knowledge of market condition.
   In perfect Competition there all sellers and buyers of commodities have perfect knowledge of market. Conditions. They are in close touch with one another the place & the price on which they sold goods & bought.
5. Perfect Mobility
   There is perfect mobility of factor of production if price high of factor of production then raw material transport at high.
6. No Transport Cost
   Because the area where good bought and sold adjacent and transport easily.
7. Firms are price taker. becz Total demand and supply of an industry and individual firms accept the price and they take decision regarding the output to be produced.
8. Uniform price becz price is determined by total demand and total supply of a commodity by the industry. Individual firm don't effect the price in a market.
9. Independent Decision because they are free to take decision regarding the product during short and long run period.
10. Normal Profit during long period because there is freedom on the entry & exit of the firm in the industry.

Pure Competition

- A large number of buyer and seller. →
- Homogeneous product
- free entry and exit of firms and industry
- Perfect knowledge of market condition.

Firms & Industry under perfect competition



Marginal Revenue & Marginal Cost Method

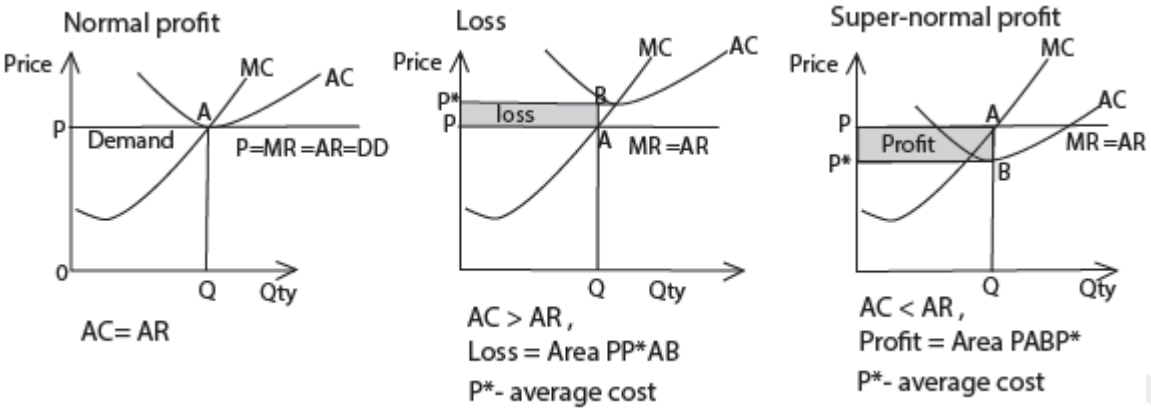
The equilibrium when two condition are fulfilled

1. When MR = MC
2. The another condition that Mc curve must cut MR froom it's below!

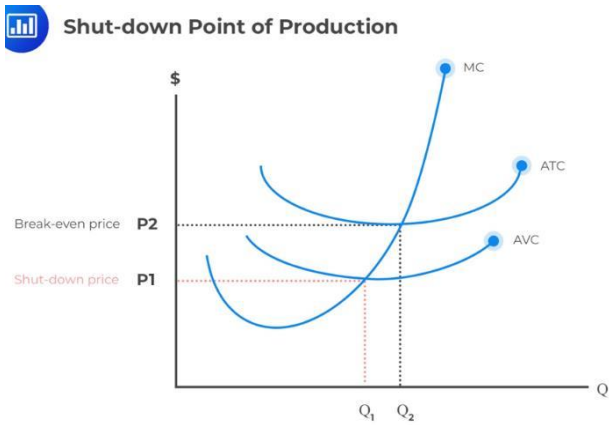
Equilibrium of the firm in Shout period

The firm will be equilibrium when two above condition fulfilled:

Profit Situation	Normal Profit	Loss Situation
A firm well earn profit when AR>AC Abnormal profit or supernormal profit Firstly draw line of OX-axis & y Axis then label on x axis is quantity on y- axis to MR/AC/AR/MC The point of equilibrium at point because MC=MR. MC curve cut MR its below, draw MR curve and AR curve met then loss point of firm	OX- axis= AR/MR/AC/MC OX-axis= quantity point of equillbrium are MC=MR=at point short run AC=AR & MR=MC . the firm earn normal profit at same time.	OX= Output OY= AR/AC/MC/ MC=MR where point of then draw curve let MR curve from it how again make AC curve it cut MC curve touch maximum point of AC at point the firm earn the loss.



Shut Down Point:-

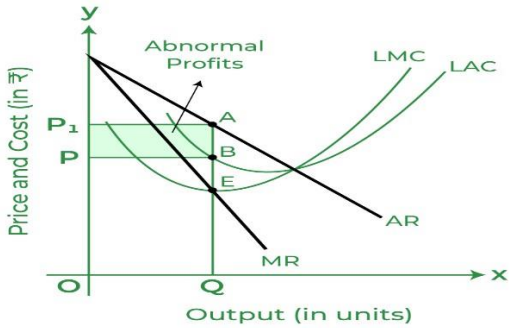


Explanation of diagram

- The diagram shows output on ox-axis while AR/MR/MC | A Shown on oy-axis.
- Draw AR= MR were parallel to x-axis then draw MC curve which fulfill both too condition MC=MR, MC cuts MR. from it Below.
- Then make AC curve , MC curve curve cuts AC from it maximum point.
- AR= MR, shut point where price is below varialble cost.

Equilibrium in Long period

1. Normal profit in long run because there is freedom on the entry and exit of the firms and industry.



Imperfect competition

A market Structure in which there is a of large number industry with buyer and sellers, free entry & exit of form in product differentiations non-price competition.

Features:-

- A large number of buyers and sellers because there is no control on the supply of product of an individua seller, it don't influence the entire market.
- Product differentiation because Products produces by different seller are not inform but there is some differentiation which may be actual Quality, size, colour, packing. The product sold by sellers are not perfect substitutes but they close substitute.
- Free Entry & Exit of firm They can leave the industry when they are interested.
- Non-Price competition because seller spend a lot of time on advertisement & sale promotion to attract more & more customer.
- Highly Elastic Demand Curve in because each individual firm has control on a smaller part of total production. A slight change Price of a product reduce the number of buyer.
- Varied Consumers preferences Consumers Preferences because of product differentiation Choosed those Brands of product which are shift acc. to their income.
- Various facilities to Attract Customers, like repairing, credit facilities, home delivery gurantee period etc.
- Independent Situation Individual firm produces a differentiated product & it is a small part of total production. Firms are free to follow its own price & production policy.

Price & output Determination under Monopolistic Competition

1) Profit making situation (abnormal super profit)

AR>AC

Price OP

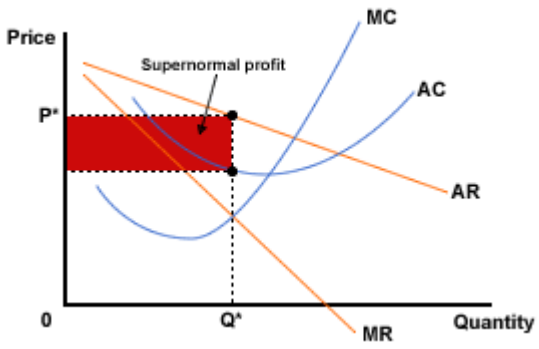
Output- OQ

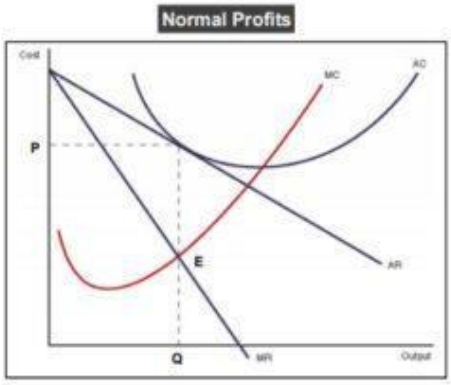
AP=TS

AR,MR,,AC,MC, are shown OY-axis

The point of equilibrium MR=MC, price OP

Total profit PLST





2) Normal Profit (AR=AC)

Price-OP

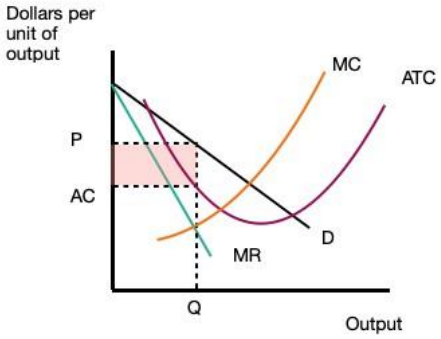
OX- output

OY- AR/MR/MC/AC

MC= MR, MC curve cuts from below

AR= AC

3) Loss Situation (AC>AR)



Price- OP

Output- OQ

AL= (AC-AR) = ST

Total loss LPST

OX- axis- output

OY- axis= AR/MR/AC/MC

Long Run in monopolistics

1) **Normal profit because free entry & exits of firms in the market**

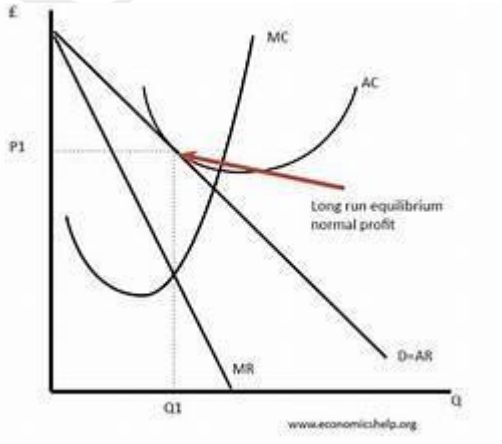
AR=AC

OX- axis

OY-axis= AR/AC/MC/MR

Draw AR& MR than MC curve with two condition AC CURVE touch MC maximum point

AR=AC



MONOPOLY

A market structure where large number of buyer and one seller or producer of a commodity.

> No substitute & full control over the supply & the form industry are one.

Features

1. Single seller full control on Supply.
2. No lose substitute - similar products are not being produces by others.
3. Full control over the supply - increase or decrease supply
4. Restrictions on the entry of firms No form enter in the industry directly as there are artificial or legal restriction in the form of patent rights, source of supply of raw material.
5. One firm one industry becz there is a single seller of product & the distinction between firm & industry no longer exists.
6. Inelastic Demand for the product - in Price Not diffrent change in demand.
7. Profit Motive-A monopolist aims at maximization of his profit during Short Run there may be loss & normal profit but in Long profit only.
8. Price Discrimination seller charger different price for different buyer for a commodity. it is only possible in Monopoly market structure.

Price & Output Determination under Monopoly

1. Profit making situation.

A monopoly form will earn profit and it will be in equilibrium when the average revenue is greater than its average cost (AR>AC), and marginal cost curve. Cuts its marginal revenue curve from its below following is called super profit or abnormal profit.

2. Normal Profit Situation

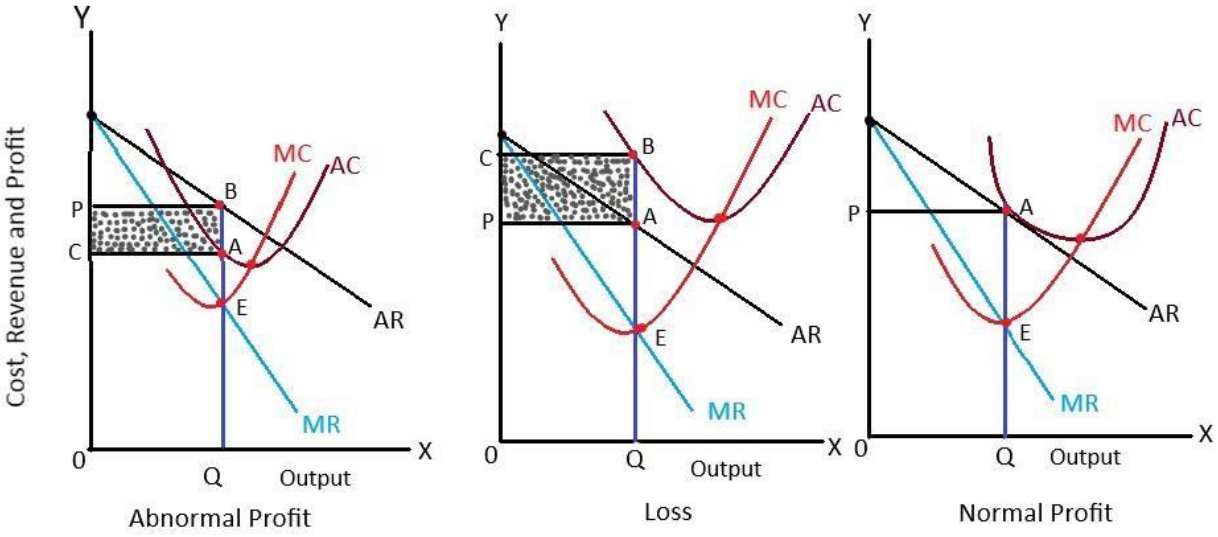
When a monopoly firm earns neither profit for Incurs losses the situation is called normal profit, AR= AC.

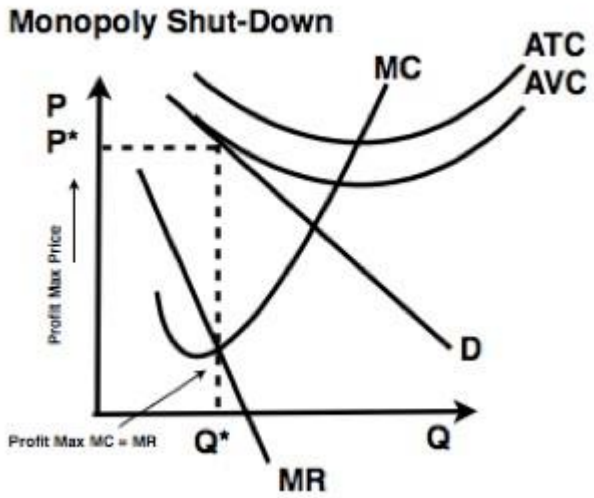
3. Loss Situation

A monopoly firm can even have losses during short period. It can be possible when a monopoly firm is grater than its revenue.

4. **Shut Down**

A monopoly firm will earn profit & it will be in equilibrium when the average Revenue is greater less than average cost & marginal cost curve cut its marginal revenue wine from its below following is called Shut down, and businessman left the the market.


Cost, Revenue and Profit
Y
X
0
Q
Output
P
C
A
B
E
MC
AC
AR
MR
Abnormal Profit
Loss
Normal Profit


Monopoly Shut-Down
MC
ATC
AVC
P
P*
Profit Max Price
D
Profit Max MC = MR
Q*
Q
MR

Discriminating Monopoly

A market in which there is a single seller for his product is called of a commodity and he charges different prices from different customers discriminating monopoly.

Characteristics

1. Single seller of a commodity Price discrimination only possible under the monopoly market structure where there is a single seller of commodity.
2. Two speaker Market, because of different price. They should be adjacent to each other.
3. Different Elastic of Demand because of different product in Both the market. The monopoly firm will then be able to fix a high price in the market in which elastic & fix a love price in the market in which highly inelastic.
4. Nature of product different price for different customers for their services.
5. Laziness or Ignorance of Buyer- When buyer are lazy and they clonot know market condition then the monopolist will charge different prices for his product different customer.
6. Supply or Sale on order when a single seller of a product supplies his product on order.
7. legal Acceptance -When a monopoly firm has legal sanction from the government to sell its product at different prices then price discrimination is possible.
8. Varying Preferences & Habits of consumers due to different taste & Habit of consumers for the consumption of a product or service. The product can be sold in different form & different prices can be charged for the same product."
9. Different uses, because uses of a source have different uses.
10. Tariff Charges- Due to traffic charges restriction We sell our product at higher prices in domestic market same product is sold at lower prices in international market because of tariff barrier.

Price & output Determination under Discriminating Monopoly

Two situations

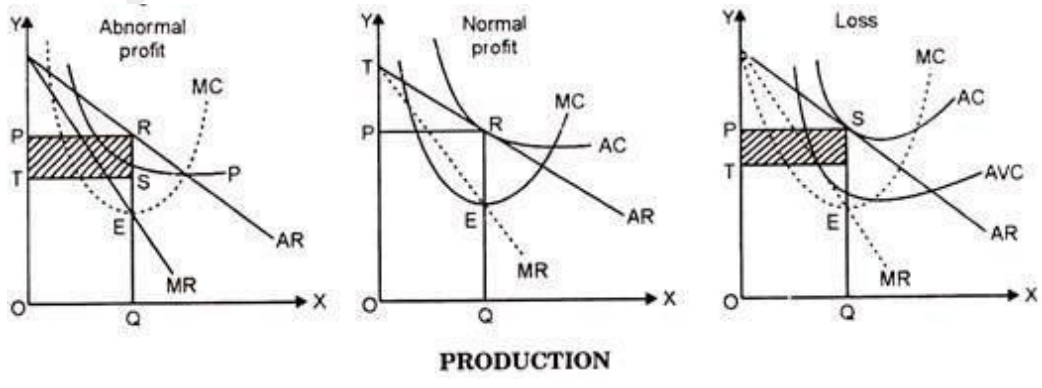
1. A monopoly market structure in both the market.

2. A monopoly market structure in domestic market & competitive market position in foreign market.

1. **Monopoly position in both the market:-**

> High Price, inelastic demand high change in price slight change demand.

> Low price elastic change in price high demand change.



PRODUCTION

2. **Monopoly in domestic market & competition in foreign Market**
   →→ Perfect Competition

Output is shown on OX- axis , prices revenue, cost on OY- axis, AR& MR of competitive market while AR, MR, in domestic market price is determined MC= MR , MC curve cuts MR From its below, show equilibrium of foreign market& e2 show equilibrium of domestic market, in domestic market charge high price due to monopoloy and it foreign market change some price the to competition market.

OLIGOPOLY

It is a market situation of imperfect competition where in there are a few sellers of a commodity or service.

1. **Pure oligopoly**

The firm producing homogenous product.

2. **Differentiated**

The firm producing differentiated, product

Characteristics:

1. A few sellers of the commodity: It means that each seller is selling a large part of the total supply in the market & is in position affect due to price & activities of other seller.
2. Homogeneous Product of differentiated Product: When a few seller is selling Homogeneous product is called Homogeneous oligopoly, when a few seller is selling Different product is called Differentiated product.
3. Inter dependence : Because Production policies of an individual firm after the policies of other firms because the products produced by these firm are close substitutes.
4. Advertisement and Selling Cost: An individual firm is spending a lot on advertisement & sales promotion & other firm is not spending the first form will attract more customer and boast its sales in market.
5. Cut-throat Competition: Each individual form wants retaliates its price on the basis of action and reaction of other firm in the market.
6. Restrictions on the Entry & Exit of firm: These restrictions are in the forms of Patents rights, copy right. At the same time heavy investment on permanents assets also don't allow to old form to leave the industry.
7. Interdependence on demand curve: Because of mutual interdependence of for its depends a behavior of revival groups. it creates atmosphere of uncertainty for the firm.

Price & output Determination under oligopoly

1. Price & output under Collusion
2. Price & Output under Collusion
3. Price & Output under independent pricing

1. **Price & Output under Perfect Collusion:**

a. Centralized Cartel:

- It aim to max of profit all the firms.
- Fix price of the product volume output& production quota.

b. **Market Sharing cartel:**

- When all the firms producing homogenous product& production cost are similar.
- In market sharing cartel each firm maximise profit there aee two firms producing on the uniform cost of production and are ready too share market 50:50 basis.

2. **Price and output under imperfect collusion**

1) Price leadership of low cost firm

The firm of low cost production tries to maximize his profit & the same price and output policy can be followed vey other firm in the industry.

Under this we assumed to firms only producing the homogeneous product & they share the market & cost of production lost one form is lower than the former.

- **Price leadership of a Dominant firm:**

The type of price determination is possible only when a large size firm and another firm is a small size firm in the industry. The large size firm will fix the price & the small firm will sell the output at that price. The price leadership of a dominant firm is based on Assumptions.

(1.) There is a large size firm & other are small seized form. There is an agreement between all the form.

(2) Small firms can sell their output at the price fixed by large seized firm.

(3) The dominant firm will maximise its profit.

(4) The output supplied by small form at the price fixed by the dominant firm and remaining producing by large firm.

(3) Price and output under Independent prising

When there is no collusion Between seller of firm then free to follow independent pricing policy.

- **Assumptions :-**

1.) Firm selling their product at Satisfactory price.
2.) If one form increase prices then other will not follow
3.) If firm reduce the price other also reduce price.
4.) All the form are experienced that the non- price competitive. will benefit them rather following policy of Price reduction.
5.) Price rigidity follow because object of profit maximization sale rather than Reduction in price.

PRODUCTION FUNCTION

It is the functional relationship between inputs and output. It can be explained numerically as.

$Q_n = F(n_1 + n_2 + \text{----------} + n_n)$

- Converting Physical input to physical output (Goods) that is called production.

Assumption:-

- It related to given period of time.
- In shout Run, one fixed factor and other factors are Variable.
- Is long Run, to all factor of production to variable while the Scale of production is changed.
- Different factor of production are divisible into small units
- Production based on state of technology.
- An individual firm adapts the best possible technique of Production.

Features:-

- It studies the physical quantities of input and output.
- It totally independent of the prices of input & output
- Due to technology if technology change production function is also change
- Period of time: Different periods of time have different types I production function
- Substituted by another inputs
- When an individual form employs one and other inputs are factor of production fixed variable. In Short Run law of production, Law of Increasing Returns, Laws of constant Returns.

Product refers to the volume of goods produces by a firm & industries during specific period of time.

Types of product

Total Product	Average Product	Marginal Product
It refers to the total quantity of goods produce by a firm during a given period of time. TP= some of MP	It refers to output per unit of variable factor AP= TP/ Output or unit variable factor	It refers to addition to the total product when one more unit of variable factor is employed. $MP= TP_n - TP_{n-1}$

Short Run Production Function

It means that a fixed factor and other factor are variable during short period of time.

Law of Increasing return	Law of constant returns	Laws of diminishing returns
When few inputs are keeping fixed and other variable factor change then increase will more change factor of production.	When the output of firm increase in same proportionate in the units of variable input are changed keeping fixed factor constant.	When the output increase less proportionate to change in the units of vaiables keeping other input constant.

Reason for Increasing

1. Indivisibility of input no division of input
2. Economies of large Scale => enjoy internal & External economies of large scale.

Internal (franginal, technical, marketing)

External (power, water, market labor)

3. Optimum uses of Resources: Fuller utilization of Resources
4. Advanced technical know-how: Applied new technology
5. Maximization Utilization of installed capacity: Untiled capacity to the maximum extent.

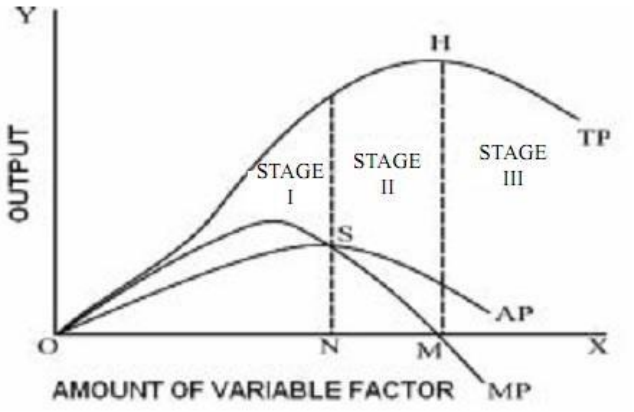
Causes of Diminishing Returns.

1. Diseconomies of scale: Internal diseconomies. in the form of managerial Marketing, technological creep in a business firm increases product loss the proportion to change in variable factor.
2. One or more inputs are fived limited unit of find factors Increases variable inputs create imbalance.
3. Imperfect Substitutes.
4. Beyond optimum Combination of Inputs.
5. Humite or Scarcity of input

Laws of Variable Proportion

It refers to the resulted increasing in the total product when only one factor is increase keeping all other factor fixed. At that time TP increases at increasing rate then at decreasing rate and finally negative.

This law creates three phases in the economic:



Labor	TP	MP	AP
Stage 1	TP increase an increasing rate initially but later on start increasing at diminishing rate.	At initial stage MP increase and after at max point level start decline	AP also increase and finally became equal to MP
Stage2	TP increase at a diminishing rate but finally reached at maximum point	Decrease and become zero	Start decreasing further but never become zero
Stage3	Start decline	Become negative	Further decrease but never become zero

LONG RUN PRODUCTION FUNCTION

If it refers those various combinations of two factors. Which gave the same level of output and a producer is indifferent to each of such combination.

Iso-quant Schedule

Characteristics of Iso-Product curve:

1. IP curve slopes downward to Right becz of limited resources with alternatives uses & he is faced with the problem of choice.
2. Iso- product curves are convey to the origin due to the factor of production is substituted-by another factor of production MRTSLR.
3. Two IP curve never intersect with each other different level of output
4. Higher the Isoquant curve higher is the level of output because same level of output with different combinations of two inputs.

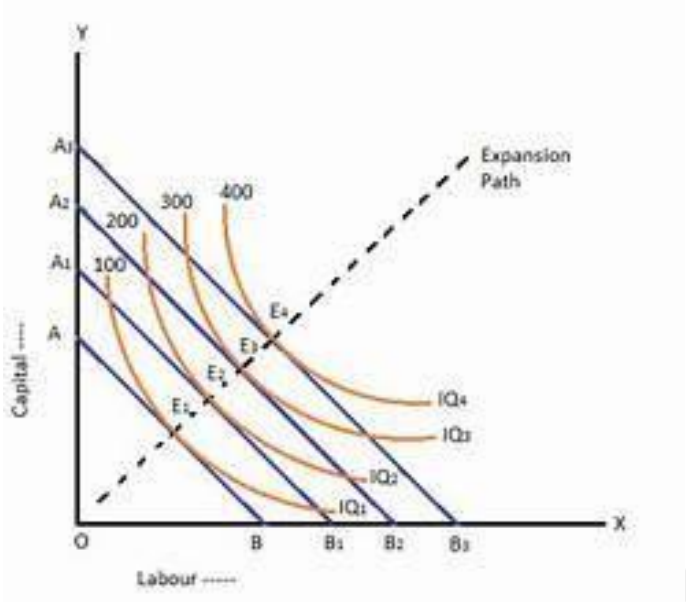
❖ Marginal Rate of Technical Substitution

If it is a rate a which factor of production are substituted

Expansion path or Scale line

When combination of two factors of production of which a producer attain his equilibrium with given amount output with the given for price of factor.

- If Price of factor remain constent how a producer changes his combination of two factors for the expansion of the output.


Y
A3
A2
A1
A
Capital ----
300
400
200
100
Expansion
Path
E4
E3
E2
E1
IQ4
IQ3
IQ2
IQ1
O
B
B1
B2
B3
X
Labour -----

Return to Scale

Or

All factors are variable

Or

Factor of production remains constant

1. **Increasing returns to scale:**

Occur when a given percentage increase in all factor inputs in constant Ratio proportionality greater increase in output.

- Cause :- Economics of sales! refers to certain benefits to a arising out of large Scale of production. Reduce lost. of production per unit of output.
- Internal Economies available to a firm within its own operation

Technical- Due to modern machine

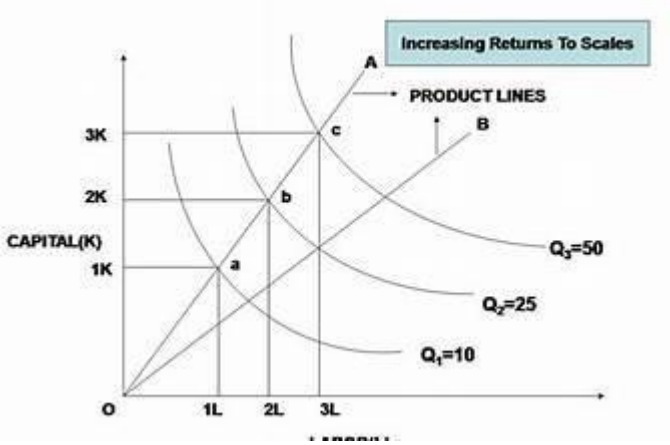
Labor- Division of labor

Marketing – Cheaper raw material

Managerial – Better & organized management

Financial- Cheaper credit facilities

Risk bearing- undertake with activities that assure high profit



- **External Economics**

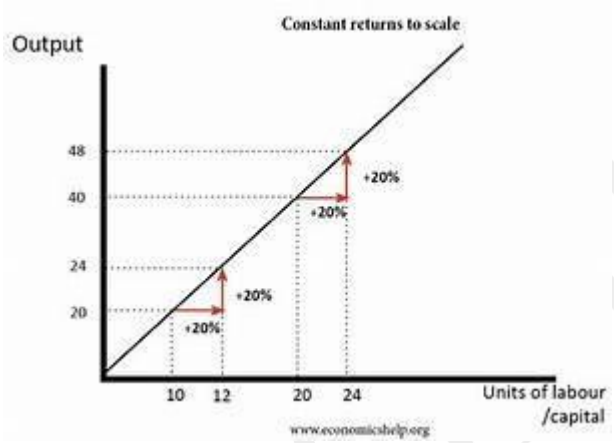
Economics of concentration : availability of skilled labor, raw material, power and easy marketing.

Economies of information : inform provided by govt. agencies help the whole industry in marketing of Goods.

Economics of Disintegration: Small firm start producing some Components for it at cheap rate.

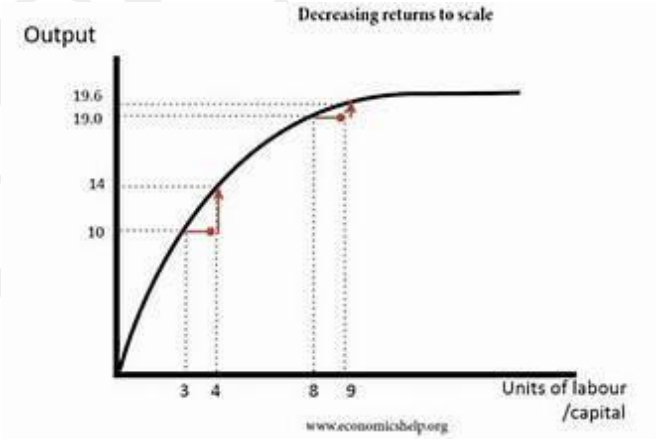
2. Constant Return to Scale

Occurs when a % increase in all factor inputs in the same ratio causes equal % increases in output.



3. Diminishing Returns to Scale

- Causes:
  Internal Diseconomies.
  Technical Diseconomies
  Managerial Diseconomies.
- External Diseconomies:- Cut throat competition causing a fall in price Shortage of factor inputs.
  Heavy cost of transportation of raw maternal



Marginal Rate of Technical Substitution

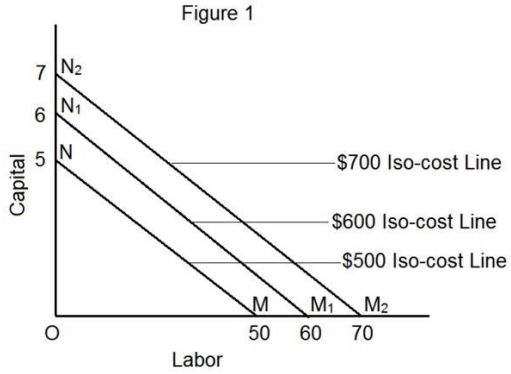
it is the rate at which too factor of production are substitute.

Combination	Labor factor A	Capital Factor B	MRTS
C	1	12	-
D	2	8	4:1
E	3	5	3:1
F	4	3	2:1
G	5	2	1:1

Iso cost curve

It shows the various combination of two input that can be employed by a producer with his given resources.

Figure 1



Meaning and Scope of Economics

Economic derived from greek word ‘ OKIOS NEMEIN’ which means household management

'OKIOS NEMEIN'

Satisfaction

Wants

Efforts

❖ Features of Business Economies

1. Micro Economics in nature
2. Theory of firm
3. Macro Economies Analysis.
4. Pragmatic & Applied
5. Prospective Nature
6. Decision Making a managerial level
7. to ordinating Nature
8. Science as well as arts
9. Case Method
10. More Scientific & Reliable.

❖ Significance of Business Economices

1. Helpful in Planning
2. Helpful in Organization
3. Helpful in Business Decision Making
4. Helpful in Demand forecasting
5. Helpful in Co-ordination
6. Determination of Business policy
7. Minimize Uncertainties & Risk
8. Helpful in cost control
9. Formulation of Business Models &Modified
10. Helpful in future planning

4. **Born or overfull Employment**

This phase is of rapid expansion business activity to new high marks, resulting in high stock & commodity price, high profit I overall full employment.

5. **Recession** –

The atmosphere of Positive of various phase is replaced by over negative. The failure of some business create panic among business man, building construction show down and unemployed appears in basic, capital goods industries.

Scope of Business Economies

1. **Theory of Consumer Behavior**

It studies the behavior of consumer who is rational having unlimited want with alternative uses, Demand Analysis Law of Demand etc.

2. **Theory of production**

It studies about production function which is concerned with Short Run & Lavy Ron, Returns to Seale.

3. **Theory of Cost**

It studies the concept of cost control in order to maximize profit of Business firm.

4. **Theory of firm**

It is studied economics with reference to different market structure. In price and output determined in different way under various market.

5. **Theory of pricing**

Price is the revenue the firm. The success of organization depend on price decision making. Price forecasting, Marginal cost pricing, average cost pricing are also studied theoretically and practical uses are applied in the form.

6. **Theory of Distribution**

In this we study the factor pricing and the share each factor in national Income. it deal with factor pricing under, Monopoly, Monopolistic, Oligopoly.

7. **Profit Management**

Long run success of organization depend its volume of profit. Profit depend upon the difference between revenue cost. Cost & Revenue affect internal& external factor.

8. **Capital Management**

This planning done by Manager from time to time it is the amount of capital which invested by owner in the firm.

9. **Risk Management**

No Risk, No Gain is the proverb in which business Manager work and take decisions in the environment of risk.

10. **Sales promotion Strategy.**

A Manager has to pay attention on the strategy of sales turnover. Sale cost depend upon the sales strategy & volumes of sales.

11. **Resources Allocation & Planning**

A business manager has to study the resource allocation & their planning strategy for attaining the objective of entire organization.

What are the Rate Of Micro & Macro Analysis ?

Micro Economies is that part of economic analysis which Studies individual Economic Variables.

- **Scope of Micro Economics**

1. A**llocation of Resource**
   a. Pricing of Commodity
      - Law of demand
      - Theory of demand
   b. Pricing of surplus
      - Rent
      - Wages
      - Interest
      - Profit
2. **Optimum Allocation of resources**
   a. Efficiency if consumption
   b. Efficiency in production
   c. Overall efficiency

1. **Optimum Allocation of Resources**
- Reservices are Scarce and have alternatives uses.
- Increase overall efficiency because of allocation
- Economic will lead to maximization off welfare.

2. **Optimal Production decision**
- What to produce, how to produce and whom Produce
- Business firm faced problem before producers
- Problem that which alternative uses regarding production economic help – Promoting & understanding the modern tools management.

3. **Business Policy**
- Formulation & implementation of pricing policies for different product by business firm.
- Profit maximization pricing policy, cost conscious pricing policy. Import parity, discriminating policy.
- Suitable & Rational pricing policy depends upon the application of well-established principles.

4. **Public Policy**
- Analysis of market structure.
- Perfect competition, monopoly, price discrimination
- Generally perfectly competitive market is preferred large number of firm operate in an industry & the price is determined by industry. Individual firm price fake & adjust only production.

Role of Micro Economic Analysis

1. Understanding of the working of Economic
2. Government Policies & Business Decision Making
3. Study of Internal operational Problems
4. Helpful in Price Determination
5. Demand & forecasting
6. Effects on Taxation
7. Study of Economic welfare
8. Tools of Decision making
9. Production and Cost Analysis
10. To Profit Planning & Control
11. Based or Predictions
12. Construction & use of Models
13. Basis of Managerial Efficiency

Macro-Economic Analysis

It is that part of economic analysis with study of aggregate or the economy as a whole.

For Example - Total output, Total Employment, Total saving, Total Investment.

Macro-Economic Analysis

1. Theory of income& employment
   - Consumption function
   - Investment function
2. Theory of general prices level
   - Inflation
   - Deflation
3. Economic development and planning
4. Theory of distribution
5. Theory of trade of cycle

1. Study of Micro Equilibriu
   - Study at macro level
   - It objective function is to maintain the macro equilibrium at the level of full employment.
2. Study of General theory
   - The General theory of employment, Interest & Money, it helps theory helps us in understanding the process of equilibrium in the Economy.
3. Theory of Income & Employment
4. Theory of general Price level.
5. Theory of development & Planning
6. Theory of Macro Distribution

Roles of Macro Economic

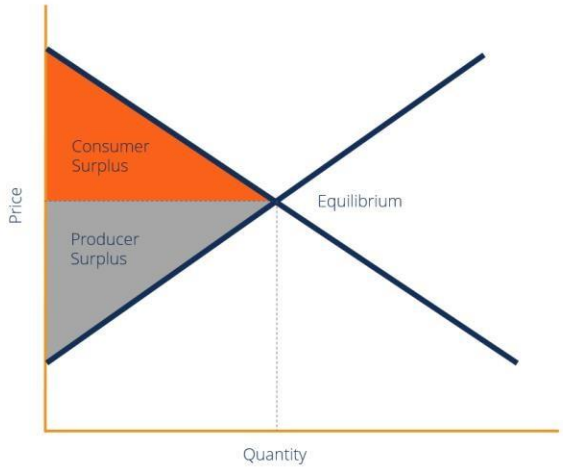
1. Knowledge of Macro Variables.
2. Formulation of Macro Economic Policy
3. Useful in Economic Planning
4. Solving the problem of Mass unemployment
5. Study of Macro Paradoxes
6. Study of Monetary problem
7. Analysis of Business cycle
8. Study of International Traded Foreign Exchange
9. Preparing Macro Economic Models
10. Helpful in Micro Economic Analysis

Consumer Surplus

The excess of price which a consumer would be willing to pay rather than go without the thing over that which he actually does pay is the economic measure of this surplus satisfaction.

Consumer surplus= Price * no. of units purchased

No. of unit of commodity	MU	Price	Consumer surplus
1	70	20	50
2	60	20	40
3	40	20	20
4	30	20	10
5	20	20	0
Total	220	100	120



Assumptions

1. Utility is measurable
2.. MU remains constant
3. Price of commodity is given
4. Demand of commodity under study is independent pricey commodity
5. No close substitute of commodity

Use & Importance

1. Use of Monopolist
   A monopoly given produces a product which has no close substitute fix price of product will see the consumer surplus.
2. Formulation Taxation policy
   Govt. will see those goods on which larger consumer surplus is enjoyed by consumer.
   The consumer pay high price & the government will easily collect the resources.
3. Pricing & Public utilities
   Consumer's surplus oriented from the benefits of Public goods like bridges, hospital benefits from these utilities are much-more than prices paid by consumer.
4. Grains from International trade
   A country has to manage its export & import in manner that people of the country can maximization consumer surplus.
   Import should be lower prices to Export should be at high Prices.
5. Welfare schemes of state
6. Explains value in use & Value in Exchange

Criticism

1. Difficult to measures consumer Surplus
2. Not applicable in luxuries and prestigious goods
3. Unrealistic Assumption
4. Hypothetical. (imaginary)
5. Wrong concept

Economic problems

1. Unlimited wants
2. Security of Resources
3. Alternative use of Resource
4. Difference in intensity of want

Economic System

- What & how much is to be produced ?
- How to produce.
- How is production is distributed?
- Rationing of Goods & Services
- Economic Maintains& progress

Role of Micro & Macro Economic Analysis in Formulation of Business Policies

Difference between Micro Economics and Macro Economics

Micro Economics	Basis	Macro Economics
It is that part of economic theory which studies the behaviour of individual units of an economy.	Meaning	It is that part of economics theory which studies the behaviour of aggregate of the economy as a whole.
Demand and supply	Tools	Aggregate demand and Aggregate Supply.
Individuals consumes, producers or small groups	Application	Government, Rest of the world
In this, laws are based on the assumption of other things being constant (ceterius paribus). It means that we show effect of only one change by keeping another factor constant. This method of study is called "partial equilibrium analysis".	Method of study	In this, laws are formulated so that mutual interpendence between different economic variables such as total savings, total employment could be studied easily. This method of study is called "General equilibrium analysis".
Micro Economics deals with the individual units therefore it involves limited degree of aggregation. For example, market supply is derived by aggregating individual supplies of all sellers in the particular market.	Degree of Aggregation	Macro economics deals with the aggregate of the economy the fore, it involves highest degrees of aggregation. For example, national income is derived from all the individual income in the economy.

Determination of rent

In income the rent is thst type of payment which is made to the owner of the and for the use of land.

According to David Ricardo," Rent is that part of produce of the land which is paid to the landlord for the use of the original & indesirable powers of the soil.''

Modern Definitions: Professor Benham has defined," In general the excess of what any unit gets over its transfer earnings a of the nature of rent."

The Rent is paid to all factor of production during short run because their supply cannot adjusted to the demand. But in the long run land the only factor of production on which rent. It is a surplus over the opportunities cost of factor of production.

Types of rent

1. **Gross Rent**
   The payment which is made to the landlord for the use of land is called Gross rent.-

❖ Gross Rent consists of the following elements :

i. Economic Rent which is paid for the use of land
ii. Payment as interest on capital for making improvement on land in the form of well constructing of draw etc.
iii. Payment for the risk undertaken by the land for the progress & implementation of land reforms.
iv. Managerial Expenses

Gross Rent:- Economic Rent + Interest on capital+ Investment + Remuneration for risk+ Managerial Expenses

2. **Economic Rent:**

According to classical economist or Dand Riardo Rent is the payment for the use of land is called economic rent. It is derived from the ownership land & other free gifts of nature.

Economic Rent= Gross Rent- IOC + Investment + Remuneration for risk + Managerial Expenses

3. **Contract Rent:**
   It is the rent which is determined mutually by an agreement the landlord.

Difference between Economic Rent & Contact Rent

Economic Rent	Contract Rent
It is an imaginary and theoretical concept of rent.	It is a practical & realistics concept
It is calculated on the basis of the difference between the cost of marginal land & cost of managerial land.	It is determined between landlord of cultivator on the basis of economic forces of demand & supply.
It increase with the decrease in the peoduce of managerial land & decrease with the increase in the produce of marginal land.	It is not affected by the change in produce oof marginal land& it is produce of marginal land & it is affected by the contract deed between the landlord & tendors.
It does not exploit the wants as there is no high rent because no marginal land exist.	There is changes of exploitation of peasent when demand for land increase.
Economic rent accures to all the factor of production.	Contract rent accrues to the owner by land.
Economic rent is not predetermined because it depends upon the facility & location of land.	Contract rent is certaint& predetermine as it is determined by contract rent between landlord& tendors.

The Recardian Theory of Rent

The classical theory of went is popularly as the Recardian theory of rent propounded by a classical economist namely David Ricardo who was dominating during the 19th century.

- Recardian theory of rent consist of two things
- Rent is paid to the landlord for the use of original & industry powers of land.

3. Rent is a result of the niggardiness of nature

❖ **Assumption of the Theory**

- The theory assumes that the rent is the payment for the use of land to the landlord.
- The theory is based on the assumption that the fertile land is just brought under cultivation & thereafter less fertile land is brought under cultration.
- The theory assumes that there is marginal land. This land called no rent because the value of the produce on such Land & cost of production" produce are equal.
- The theory is based on the assumption that the land is used for the production of foodgrains & it has no alternative uses.
- The theory assumes that there is perfect competition in factor market as well as in commodity market.
- The theory is based on the assumption that the law of diminishing returns operates in agriculture.
- The theory assumes that rent on land arises on account of either the differentiations fertility of land on due of differential situation of Land.

Determination of Rent

The difference between the produce of superior land to marginal land. If all lands were of equal fertility then the went would not arise.

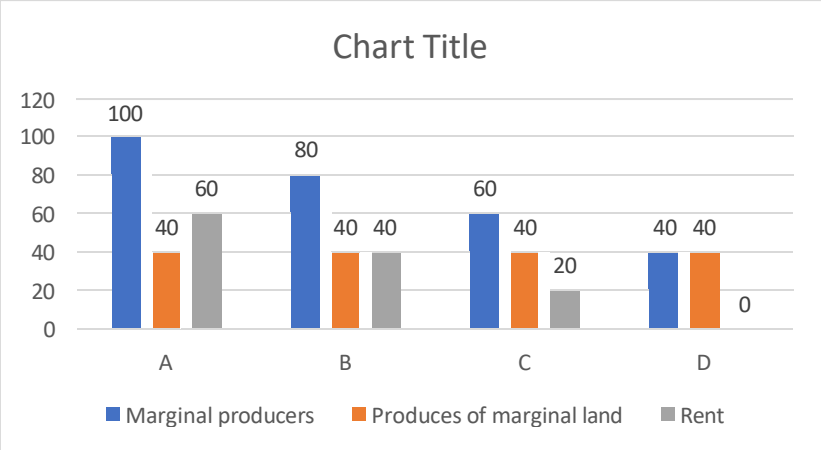
Rent can be determined by two ways.

Rent under Extensive Cultivation

Extensive cultivation that type of cultivation under which in order increase. The production of food grains increasing the size of landholding.

Tabular Presentation

Categories of land	Marginal producers	Produces of marginal land	Rent
A	100	40	60
B	80	40	40
C	60	40	20
D	40	40	0
A	100	40	60
B	80	40	40
C	60	40	20
D	40	40	0



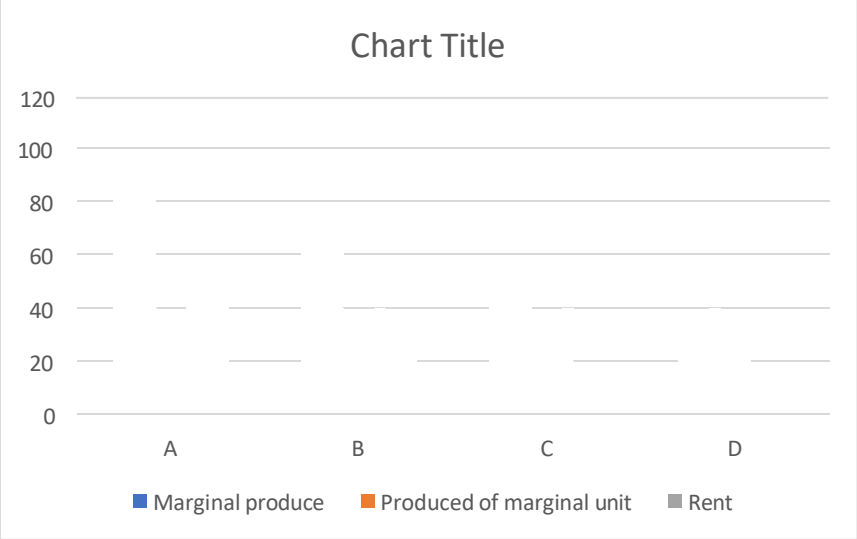
- Category AB& C on Super Marginal land & D is marginal Land showed by this diagram Rent has been determined on the basis of the Categories.

• Rent under Intensive Cultivation

Under this type of cultivation the size of landlord remains constant but we increase losses of labor & capital in order to increase the production of goodgrains. The basis of rent determination is the difference between the produce of marginal unit & super marginal units of labor & capital.

Tabular Presentation :-

Unit of labor & capital	Marginal produce	Produced of marginal unit	Rent
A	100	40	60
B	80	40	40
C	60	40	20
D	40	40	0



Criticisms of theory

1. **Original & Indestnictible Powers's & Soil are imaginary**
   The way of determining went that is given by David Record to it is an imaginary situation & it does not exists. But in purchase we see that there are no such powers of soil in practice. Facility can be increase by artificial method & also can be destroyed by atom-bombs.
2. **Absence of historical Evidence**
   In actual practice we see that there is no such land called as no rent land or marginal land. At present there is no country in which rent is not charged even on the most fertile land.
3. **Rent arsis due to Scarcity of land**
   Rent arises due to scarcity of land It's supply is lesser than the demand.
4. **Rent Element in all factor of Production**
   During short period there is rent demand in all factor of production because their demand is greater than supply But in long run its adjusts.
5. **Unrealistic, Imaginary Assumption**
   The classical theory is based on perfect competition market structure which is also an imaginary & unrealistic assumption.
6. **Law of Diminishing rehons can be postponed**
   As we know that an application of modern technique of production, high yielding varieties of seeds pesticidies & fertilizers etc. can ↑ it fertility.
7. **Rent does not determine Price** - It is affected by the price.
8. **Labor & capital are not a single Identical factor of production**
   In practice we see capital are two seprate factor of production & their unit are not identical.

Modern Theory of Rent

Basis of Theory The basics of theory of rent (modern) is that the factor of production can be categorized into two as given-

1. Specific factor of production
2. Non-Specific factor of production

1. **Specific factor of production -** are those which are in specific purposes as or uses only & they don't have business mobility.
2. **Non-Specific factor of production -** are those which can be to various uses such factors of production have the following elements-
   - Any factors of production can be easily obtained
   - Any factor of production which is specific at a time may also become non- Specific in nature.
   - No factor of production is fully specific or fully non- specific

Definition of Modern Theory of Rent

Professor K. & Building " Economic rent is that payment which is paid to one unit of any factor XC gets over & above its minimum earning which is necessary to keep that* of production in an industry which in necessary to keep that factor is present business.

The modern theory of rent explains that rent is a surplus to any factor of production over its earning at present in at present in any use.

Rent = Actual Earning- Transfer earning

The income of any factor of production consists of transfers earning and economic rent · Transfer earning is check on transfer of a factor from one use to another Economic rent is the surplus oven total actual earning and transfer earning. The higher the difference between actual earning transfer of earning of a factor of production higher will be the Rent. If transfer earning zero then whatever. The payment received by the factor of production will be rent.

Causes of Preising Rent

Because of differentials in the fertility of rent but it did not explain whey rent arises. Due to the use of any factor of production When factor of production is scarce and its supply limited to its demand.

The owner of of factors of production will get rent if supply is less than perfect elastic.

Comparison between Ricardian Theory of & Modern theory of Rent

Recardian Theory	Modern theory
Rent is paid for the use of original and power of land to the landlord.	Rent is surplus over the transfer earning of the factor of production.
Differentials in fertility or land and its location.	The factor of production or specific use of factor.
The diffrentials between marginal land and super marginal land.	Different between actual earning and transfer earning.
Rent doesnot affect prices but it is affected by prices.	Rent is part of cost of production from the point of an industry producer.
Based on imaginary and unrealistics assumption.	The theory is more realistic and useful.

Determination of Wages

A wage may be defined as a sum of money paid under contract by an employed to a worker for service rendered. Any payment for mental and physical labor is called wages.

Types of Payment of wages

1. Narrow sense of the term labor means workmen, who work in factories and on farms.
2. No difference between salary and wages.
3. Reward to the professional like Docker, advocate,
4. Payment fare various services of shoes-makers, artisans
5. Bonus is also included in wages.

Money wages	Real Wages
Nominal wages Payment mode to worker in term of money Measured in terms of money	Real wages are expressed in terms of good & services and the facilities provided by an employer to the worker.

Determinants of wages

1. Purchasing Power of money → there is inverse relationship price and purchasing power.
2. Fringe Benefits is like housing, medical, and education facilities
3. Additional Income = If additional Source of income it increases real income
4. Source & unemployment & part time job inverse real income
5. Nature of Work: When the Work Is Injurious to health then the high money will also reduces the real wages.
6. Hours of Works & Holiday
7. Working & living condition

THEORIES OF WAGES

1. **The Subsistence Theory of wages**

The wages tends towards the minimum subsistence level in the long run. Minimum subsistence level is the amount which is necessary to maintain the minimum level of living for a family.

Criticism

1. The theory is one sided
2. The theory doesn't take into consideration, the production fil.
3. The subsistence level cannot be easily measured
4. It depend on the number
5. It have Direct relationship between wages rate Population Growth
6. The theory emphasis on the exploitation of worker.

2. **The Standard of living Theory of Wages:-**
   Wage rate should be determined on the basis. Standard of living of worker. The wages change according on the standard of living of worker.
   Wage rate should be determined on the basis of the minimum needs of workers including the neccessaries, comforts, Iuxuries.
   Criticism

- The theory is one sided
- Wages depend on standard of living
- Standard of living constant & the wage rate should be constant but in practice there is frequent change in wage rate while Standard of living doesn't change.

3. **The Wage fund theories of Wages.**
   An entrepreneur keeps a part of his capital for the payment of Worker which is called wage funds fixed.

More Worker less wage rate.

less Worker more wage rate.

Criticism

1. Wage fund is an imaginary concept
2. Efficiency of Worker Ignored.
3. The Demand for Labor is a derived for demand.
4. Increase in wages do not affect the Profit & inverse relationship.
5. Wage Differential are Not Explanied.
6. Trade union ignored.

4. **Residual Claimant Theory of Wages**

Acc. to this Rent theory, interest and profits are determined on the bases of some principles of remuneration but there is no theory as such for the determination of wage.

Wage rate= total output- (rent+ interest+ profit)

Higher the productivity high will be shows of labor in output.

Criticism:

1. One sided the pay
2. Residual is Entrepreneur
3. No need of separate theory of wages
4. Roles of trade union Ignored

Determination of Interest

The reward or payment for use of capital to the owner of capital.

1. Gross interest:
   It is a comprehensive loan which include net interest, reward for taking risk, reward for inconvenience& reward for management.
2. Net income
   The payment mode for the use of capital & it do not include any other income.

Theories of Interest Determination

1. Neoclassical
2. Classical
3. Modern theory of interest

1. **The classical theory:**
   The theory is also called saving investment theory of Interest es demand & supply theory of interest.

Demand for capital

The Demand based on Its productivity, The demand consists of consumption & productive process. MP of capital goes on decreasing because of operation of love of variable proportions The inverse relationship between the role of interest & demand for Capital.

Supply for Capital

The supply of capitals depends upon the the savings . Society Saving wire from individual firm & Government saving are affected by various factor namely level of income, standard of living, attachement of family, low and order security of life.

Criticism

1. The level of income which bring equilibrium between Saving & Investment.
2. Saving & investment are not interest elastic.
3. The Theory Ignores Monetary factor while Determining the Rate of interest

2. Loanable funds theory of Interest

Neo classical theory of interest

The rate of interest is determined by the demand funds and the supply of loanable finds.

Demand for Loanable Funds

1. **Investment Demand**

Investment is needed for capital goods & other infrastructure. Interest is the cost for the demand for loanable fund. Interest is equal to MP of capital with ↑ capital investment the MP of capital declares.

2. **Dissaving**

When expenditure is more the current income then it is called dissaving. More Expenditure on consumption is done the the current in come by the people will lead to negative saving.

3. **Demand for Hoarding**

People would like to hoard money or wealth**&** they Demand for Lonable funds. Loanable funds can be use in Shares & Debentures.

Supply of Loanable funds

1. **Saving (Direct relationship)**

Difference between the income & consumption Saving depend on the level of income of individual Government households &Government.

2. **Dishoarding**

When hoarding money is used for consumption & investment purposes, it is called Dishoarding.

3. **Bank Credit**

Supply of loanable funds is also increased by expansion or contraction of bank credit. Higher the scale of interest more will be the bank credit.

4. **Dis investment**

It means the withdrawal of the amount invested by the entrepreneurs & investor when the disinvestment take places the supply of loanable fonds will increase.

Liquidity Preference Theory of Interest

Interest is a a reward for parting with liquidity for a specific period . Acc. to liquidity Rate of interest of interest is determined by the demand of liquidity & supply of liquidity

Motive of Liquidity Preference

1. Transaction Motive

2. Speculative Motive

3. Precautionary motive

- **Supply of liquidity or Money**

Supply of money consits of coins, paper currency an economy bank credit. It increase supply of liquidity in an economy during a given period. It depends upon the monetary authority of a country.

Criticism of theory

(1) The Theory Ignores till factor
(2) No liquidity Without Saving
(3) one sided theory
(4) The theory is Related with Short kind

Profit : Concept! theories & Policies.

Profit is the reward for the work of entrepreneurial or it is a payment of risks, uncertainties & innovation.

Features of Profit

1. Profit is a residual Income
2. Higher the Risk Higher will the profit
3. Profit is uncertainty indeterminate
4. Profit may be positive negative of zero.
5. Profit may be change & it vary from one period to another.

Concepts of profit

1. Gross profit

It is the total profit. It is the residual income received by entrepreneur when we exclude total explicit cost from total Revenue of a firm Explicit cost.

2. Net Profit

economic profit NP reward paid to entrepreneurs for taking risks, uncertainty bearing and new innovations in the process of production.

N.P = Total Revenue - Explicit cost - Implicit Cast

3. Normal profit

New concept of profit known as normal profit. it is a reward of representative firm & the firm which earning normal profit is an optimum firm, The Normal profit include the production cost of the representative.

Theory of profit

1. Rent theory of profit
2. Wage theory of profit
3. Innovation theory of profit
4. The Risk theory of perfect
5. uncertainty theory of profit
6. The Marginal Productivity theory of profit

Business Cycle

A trade cycle may be defined as period of followed by a period of depression. It is not surprising that economic process should be regular, trade being good at sometime & bad of other

- **Stages of the Business Cycle**

In the diagram above, the straight line in the middle is the steady growth line. The business cycle moves about the line. Below is a more detailed description of each stage in the business cycle:

1. Expansion

The first stage in the business cycle is expansion. In this stage, there is an increase in positive economic indicators such as employment, income, output, wages, profits, demand, and supply of goods and services. Debtors are generally paying their debts on time, the velocity of the money supply is high, and investment is high. This process continues as long as economic conditions are favorable for expansion.

2. Peak

The economy then reaches a saturation point, or peak, which is the second stage of the business cycle. The maximum limit of growth is attained. The economic indicators do not grow further and are at their highest. Prices are at their peak. This stage marks the reversal point in the trend of economic growth. Consumers tend to restructure their budgets at this point.

3. Recession

The recession is the stage that follows the peak phase. The demand for goods and services starts declining rapidly and steadily in this phase. Producers do not notice the decrease in demand instantly and go on producing, which creates a situation of excess supply in the market. Prices tend to fall. All positive economic indicators such as income, output, wages, etc., consequently start to fall.

4. Depression

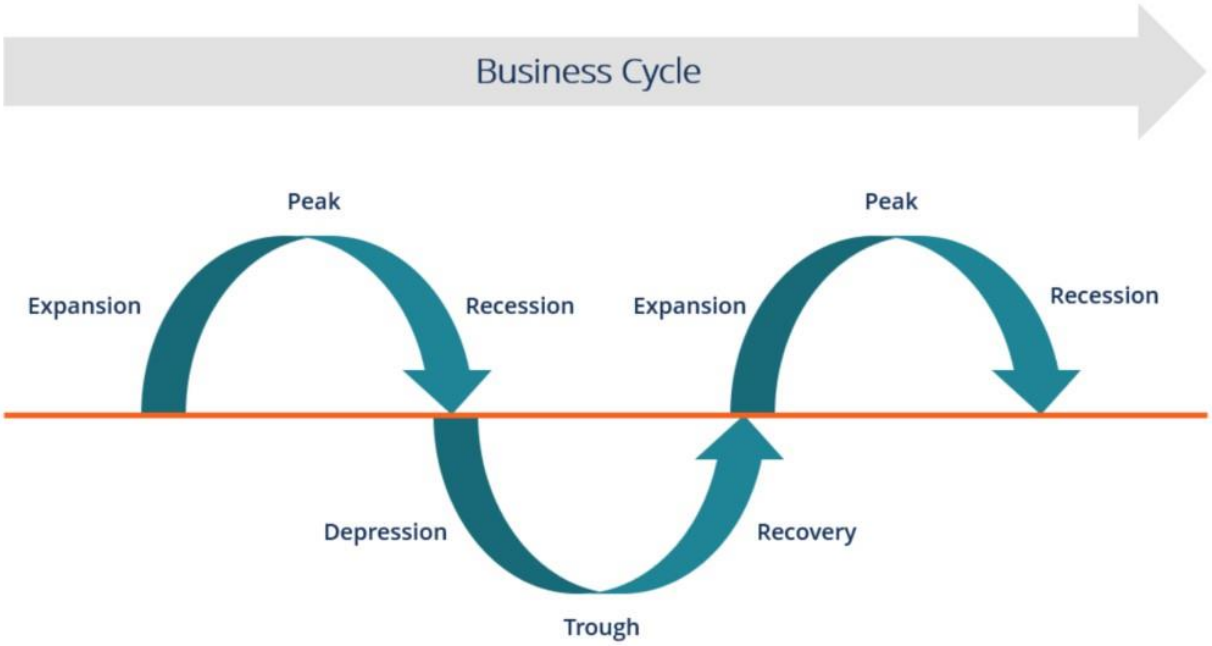
There is a commensurate rise in unemployment. The growth in the economy continues to decline, and as this falls below the steady growth line, the stage is called a depression.

5. Trough

In the depression stage, the economy's growth rate becomes negative. There is further decline until the prices of factors, as well as the demand and supply of goods and services, contract to reach their lowest point. The economy eventually reaches the trough. It is the negative saturation point for an economy. There is extensive depletion of national income and expenditure.

6. Recovery

After the trough, the economy moves to the stage of recovery. In this phase, there is a turnaround in the economy, and it begins to recover from the negative growth rate. Demand starts to pick up due to low prices and, consequently, supply begins to increase. The population develops a positive attitude towards investment and employment and production starts increasing.


Business Cycle
Peak
Peak
Expansion
Recession
Expansion
Recession
Depression
Recovery
Trough