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Acquaint with Economics



A Complete Revision Handbook of Economics for Class XII

(for CBSE, ICSE and State Boards)

'In the memory of my Grand Father'

As per CBSE syllabus

Acquaint With Economics

(A Complete Revision Notes of Economics for Class XII)

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Application - 'Acquaint with Economics'

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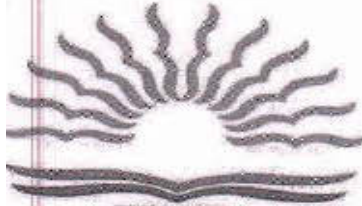
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NOTE OF APPRECIATION

Helen Keller was asked what was worse than being born blind. She replied 'to have sight and no vision'. I have found that if you ask successful people what has really helped them where they are in life. Invariably they will tell about a goal, a dream, a mission, a purpose- something that has been motivating them throughout the year to become what they have finally become. Tragically the world is full of many mundane people who see only what is immediate and ordinary. They only reach out for things they can tangibly put their hands on. They go for convenient. They never look beyond; and they never look at what they could be. A Mundane man is really one who lacks depth because he lacks mission.

On the other hand there are the people like Dr. Asad Ahmad, PGT(Economics) KV Mungaoli, who is greatly motivated by his dream of reaching beyond. He has passion for teaching his subject 'Economics' for which he carries a dream that is bigger than himself, that always keeps him going.

The 'Acquaint with Economics' handbook brought out by Dr. Asad Ahmad toward levelling up the slow learners in particular and others in general in Economics for Class XII is a remarkable work. It shall:

01. increase the understanding of students about the terms and concepts of the subject at a place.
02. it will help them acquire the knowledge needed to have minimum level of learning, too, and passing the exam.
03. it shall improve their ability to use theoretical and analytic approach to solve questions and problems in Economics.
04. it shall increase the vocabulary to understand the contents better.
05. it shall increase their ability to read and comprehend as well as interpret intelligently the graphs, tables and other graphical presentations of the subject.

Hope the booklet shall develop the better understanding of the subject, and the children will find it a living and interesting subject.

I congratulate Dr. Asad Ahmad, PGT (Economics) for recognizing the problem and providing this booklet as solution. Dr. Ahmad always plays favourite. His results and the work connected explains Why.

Wish Dr. Ahmad all the best!

Dr. Asad Ahmed
PGT (Economics)
KV, Mungaoli
Distribution:

01. The Assistant Commissioners, KVS, RO Bhopal for information and necessary action.
02. The Principal, KVs, Bhopal Region for information and necessary action.

Mkl. doc.763


Deputy Commissioner

A Word to my Dear Students

It gives me great pleasure in presenting the Students' Support Material "ACQUAINT WITH ECONOMICS" to all students of economics of class XII. The material has been prepared keeping in mind your needs when you are preparing for final exams and wish to revise and practice questions or when you want to test your ability to complete the question paper in the time allotted or when you come across a question while studying that needs an immediate answer but going through the text book will take time or when you want to revise the complete concept or idea in just a minute or try your hand at a question from a previous CBSE Board exam paper or the Competitive exam to check your understanding of the chapter or unit you have just finished. This material will support you in any way you want to use it.

Utmost care has been taken to include only those items that are relevant and are in addition to or in support of the text book. This material should not be taken as a substitute to the NCERT text book but it is designed to supplement it.

This material provides the students a valuable window on precise information and it covers all essential components that are required for effective revision of the subject. The Students' Support Material has all the important aspects required by you; all the units/chapters or concepts in points, mind maps and information in tables for easy reference.

I hope this material will prove to be a good tool for quick revision and will serve the purpose of enhancing students' confidence level to help them perform better. Planned study blended with hard work, good time management and sincerity will help the students reach the pinnacle of success.

Happy learning!

Place – Lucknow

Dr. Asad Ahmad

Year – 2018

(M.A., Ph.D., UPSLET, B.Ed., DCGC)

A decorative border resembling a scroll, with a thick black line and rounded, scroll-like corners. The text is centered within this scroll.

Micro Economics

INTRODUCTION - PRODUCTION POSSIBILITY CURVE

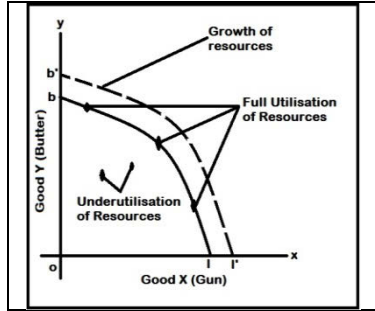
Economizing Resources - Efficient use of available scarce resources.

Economic Activity - It is an activity performed with the expectation of some remuneration either in the form of cash or in kind.

Economic Problem - Economic problem arises primarily due to scarcity of resources.

Scarcity - Scarcity refers to the limited resources in relation to demand.

Production Possibility Curve - It is a curve which shows all possible combination of two goods which can be produced with the given resources and technology by a country.



Possibility	Good X	Good Y	MRT _{xy} / MOC
A	0	10	---
B	1	9	1X : 1Y
C	2	7	1X : 2Y
D	3	4	1X : 3Y
E	4	0	1X : 4Y

Marginal Opportunity Cost or Marginal Rate of Transformation - It means the rate at which an additional unit of a good is transformed in another good i.e. number of a good that are sacrificed for the production of an additional unit of good X. It is also known as marginal opportunity cost. $MRT_{xy} = \Delta Y / \Delta X$

$MRT_{xy} = \text{Loss of good Y} / \text{Gain of good X}$

MRT Constant = PPC Downward Sloping Straight Line.

MRT Increasing = PPC will be Downward Sloping Concave to the Origin;

MRT Decreasing = PPC will be Downward Sloping Convex to the origin.

CENTRAL PROBLEMS OF AN ECONOMY

Economic problem is the problem of making choice. It arises due to * Endless Human Wants and differences in their urgency; * Limited or Scarc Resources; and * Alternative Uses of Resources.

WHAT TO PRODUCE

It refers to which goods and services are to be produced and how much quantity of each good or services is to be produced i.e. consumption goods or capital goods, with the limited resources.

HOW TO PRODUCE

It refers to the choice of methods of production of goods & services i.e. whether Labour Intensive Technique or Capital Intensive Technique is to be adopted taking into consideration the proportion of capital and labour in an economy.

FOR WHOME TO PRODUCE

It concerns with the distribution of income & wealth which refers to who earns how much or who has more assets than others. It is categorized as Personal Distribution - It refers to income share of individuals and households in the society. Functional Distribution - It relates to income share of different factors of production between labour, capital, land and entrepreneur.

PROPERTIES OF PPC

A Production Possibility Curve is a downward sloping curve - In a full employment economy, more of one goods can be obtained only by giving up of other goods. It is not possible to increase the production of both of them with the given resources.

The shape of the production possibility curve is concave to the origin- The opportunity cost for a commodity is the amount of other commodity that has been forgone in order to produce the first. The marginal opportunity cost of a particular good along the PPC is defined as the amount sacrificed of the other good per unit increase in the production of the good in question. Increasing marginal opportunity cost implies that PPC is concave.

PPC can be shifted rightward or Leftward - If resources are increased or technology upgraded, there is an rightward shift in PPC and If resources are decreased or technology degraded, there is an leftward shift in PPC.

CAPITALIST ECONOMY

In this all factors of production are owned and operated by the private sector. Central problems solved by price mechanism and main motive are to earn profit.

SOCIALIST ECONOMY

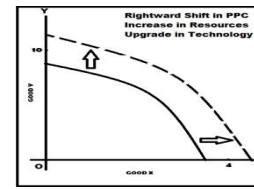
In this all factors of production are owned and operated by the government. Central problem solved by the central planning authority and main aim is social welfare.

Solving Problem with PPC

What to Produce	How to Produce	Whom to produce
Problem of selection of combination of goods.	Problem of selection or choice of technique.	Selection of group, Production either for poor or for rich.

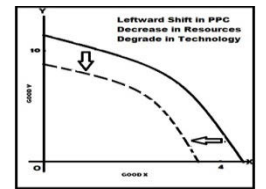
Rightward Shift in PPC

If resources are increased or technology upgraded, there is a rightward shift in PPC.



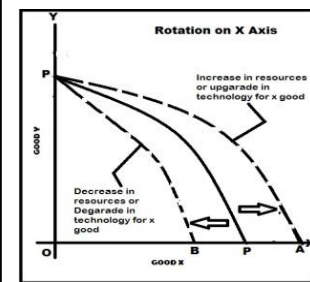
Leftward Shift in PPC

If resources are decreased or technology degraded, there is a leftward shift in PPC.



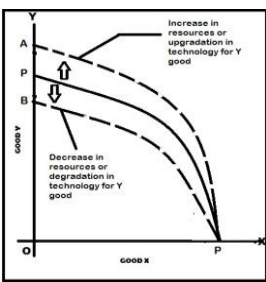
Rotation on X axis - PPC

When there is a technological improvement or increase in resources for good X, then PPC will rotate on X Axis from PP to PA. In case of Technological degradation or decrease in resources for good X PPC will rotate from PP to PB.



Rotation on Y Axis - PPC

When there is a technological improvement or increase in resources for good Y, then PPC will rotate on Y Axis from PP to PA. In case of Technological degradation or decrease in resources for good Y PPC will rotate from PP to PB.



MICRO ECONOMICS	MACRO ECONOMICS	POSITIVE ECONOMICS	NORMATIVE ECONOMICS
1. It is the study of individual units of an economy	1. It is the study of the whole economy	1. It is that branch of economics which is based on facts and data.	1. It is that branch of economics which is based on opinions, values and judgments.
2. It deals with allocation of resources	2. It deals with growth and development of resources	2. "What it is" or "What is was"	2. "What ought to be" or "What should be"
3. It is also called price theory.	3. It is also called income theory.	3. Analyses the cause and effect relationship for various economic issues.	3. It passes value judgments for various economic issues.
4. Demand and Supply are the tools.	4. Aggregate Demand and Aggregate Supply are the tools.	4. Can be proofed with data.	4. Can't be proofed with data.
5. It is a narrower concept.	5. It is wider concept.	5. * Prices are increasing. * Population is growing very fast.	5. * Rising prices must be controlled. * Population must be controlled.

CONSUMER'S EQUILIBRIUM - UTILITY APPROACH

UTILITY – The term **utility** refers to the want satisfying power of a commodity. Commodity will possess utility only if it satisfies a want. Utility differs from person to person, place to place, and time to time.

CHARACTERISTICS - * Utility is Subjective; * It depends on Intensity of Need; It is measurable; * It is not essentially useful.

Total Utility - The total satisfaction a consumer gets from a given commodity /service.

$TU_n = MU_1 + MU_2 + MU_3 + \dots + MU_n$ OR $TU = \Sigma MU$

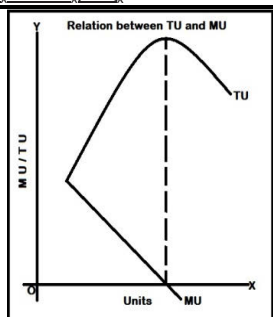
Unit	MU _x	TU _x
1	4	4
2	3	7
3	2	10
4	1	11
5	0	11
6	-1	10

Marginal Utility – It is the utility derived from the last unit of a commodity consumed. It can also be defined as the addition to the total utility when one more unit of the commodity is consumed.

$MU_n = TU_n - TU_{n-1}$ OR $MU_x = \Delta TU_x / \Delta Q_x$

Relation Between Total Utility and Marginal Utility –

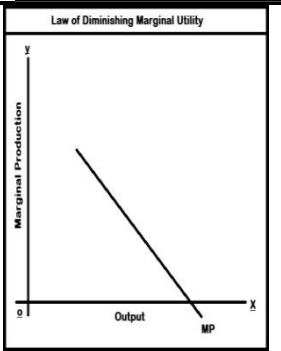
- * As long as MU is positive, TU increases.
- * When MU is zero, TU is maximum and constant.
- * When MU is negative, TU decreases.
- * TU is summation of MU.
- * MU is the slope of TU.



LAW OF DIMINISHING MARGINAL UTILITY -

As we consume more units of a commodity, each successive unit consumed gives lesser and lesser satisfaction, that is marginal utility diminishes. It is termed as the Law of Diminishing Marginal Utility.

Exceptions – Hobbies; Drunkards; Misers; Music and Poetry; Reading.

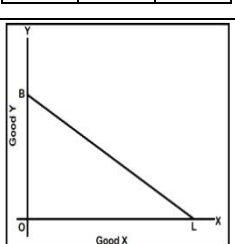


BUDGET SET – It is a set of all bundles of 2 goods that a consumer can buy with his given income and prices of commodities.

BUDGET LINE – It is graphical representation of Budget Set.

- * PL or $BL = M \geq P_x Q_x + P_y Q_y$
- * B.L. is downward sloping.
- * Slope of BL is P_x/P_y .
- * Consumer can afford any bundle that lies on or inside Budget Line.

Com	X	Y
A	10	0
B	8	1
C	6	2
D	4	3
F	2	4
S	0	5



CONSUMER'S EQUILIBRIUM

CASE OF A SINGLE COMMODITY

It refers to a situation in which a consumer spends his income on purchase of a commodity in such a way that gives him maximum satisfaction. Consumer equilibrium is determined when the following conditions are satisfied.

MU_x = P_x (Price)

Total satisfaction decreases with additional purchase after equilibrium.

Unit	P _x	MU _x	Remarks
1	3	5	MU _x > P _x
2	3	4	MU _x > P _x
3	3	3	MU _x = P _x
4	3	2	MU _x < P _x
5	3	1	MU _x < P _x
6	3	0	MU _x < P _x

MU_x > P_x

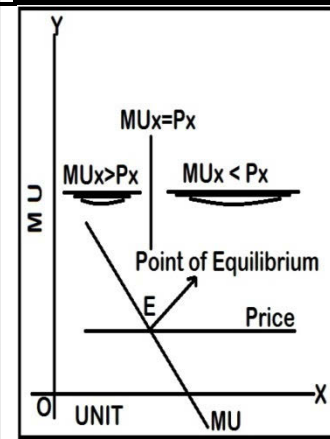
Consumer gains more satisfaction in comparison to sacrifice. Purchase of X will increase, MU_x will fall and become equal to price. MU_x = 4, P_x = 3; MU_x > P_x 4 > 3

MU_x = P_x

MU implies Satisfaction. Price implies Sacrifice. MU_x = 3; P_x = 3; MU_x = P_x 3 = 3 No change in purchasing or consumption

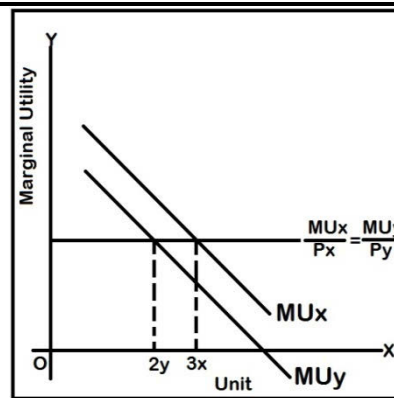
MU_x < P_x

Consumer suffers losses as he is sacrifice more than gain. Purchase of X will reduce, MU_x will rise and become equal to price. MU_x = 2, P_x = 3; MU_x > P_x 2 < 3



CASE OF TWO COMMODITY

In actual life a consumer consumes more than one good. In such case Law of Equi-Marginal Utility helps to determine consumer's equilibrium. According to this law a consumer gets maximum satisfaction when ratio of MU of two commodities to their respective prices is equal. A consumer will spend his income in such a way that utility gained from the last rupee spent on each commodity is equal. In case of 2 commodities, a consumer attains equilibrium when marginal utilities of both the goods are equal. i.e., $MU_x = MU_y$ $MU_x/P_x = MU_y/P_y = MU_m$



Suppose Price of X and Y is 1 Rs. each and Total Money Income is 5 Rs. Consumer will spend his total income and purchase 3X and 2Y and maximize his satisfaction to the 19 units. If he spends his money on any other combination, total utility would be less than 19 units. Thus he buys 3 units of X and 2 of Y.

Units	MU _x	MU _y
1	5	4
2	4	3
3	3	2
4	2	1
5	1	0

MU_x/P_x > MU_y/P_y

2 Unit of X & 3 Units of Y
 $MU_x/P_x = MU_y/P_y$
 $MU_x = 4, MU_y = 2$
 $P_x = 1, P_y = 1$
 Put values in the formula
 $4/1 = 2/1$ $4 > 2$
 Consumer will not be in equilibrium. In this case – Consumption of X ↑ → Decrease in MU_x. Consumption of Y ↓ → Increase in MU_y. Process will continue till the point – $MU_x/P_x = MU_y/P_y$

MU_x/P_x = MU_y/P_y

3 Unit of X & 2 Units of Y
 $MU_x/P_x = MU_y/P_y$
 $MU_x = 3, MU_y = 3$
 $P_x = 1, P_y = 1$
 Put values in the formula
 $3/1 = 3/1$ $3 = 3$
 Consumer will be in equilibrium. In this case – No change in existing Consumption schedule.

MU_x/P_x < MU_y/P_y

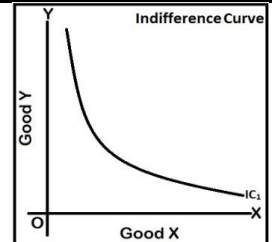
4 Unit of X & 1 Unit of Y
 $MU_x/P_x = MU_y/P_y$
 $MU_x = 2, MU_y = 4$
 $P_x = 1, P_y = 1$
 Put values in the formula
 $2/1 = 4/1$ $2 < 4$
 Consumer will not be in equilibrium. In this case – Consumption of X ↓ → Increase in MU_x. Consumption of Y ↑ → Decrease in MU_y. Process will continue till the point – $MU_x/P_x = MU_y/P_y$

CONSUMER'S EQUILIBRIUM - INDIFFERENCE CURVE APPROACH

Ordinal Approach – This approach suggested that utility cannot be measured in terms of units. It can at best be ranked or compared as high or low. This approach is given by Prof. Hicks and Allen.

Indifference Curve - it is a curve showing different combinations of two goods which give equal satisfaction to the consumer.

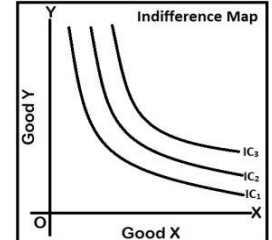
Bundles	Good A	Good B	MRS _{xy}
A	1	12	--
B	2	8	1X=4Y
C	3	5	1X=3Y
D	4	3	1X=2Y
E	5	2	1X=1Y



MARGINAL RATE OF SUBSTITUTION – MRS is a tool of IC analysis. It is the amount of good Y that a consumer is willing to give up for one more unit of Good X. It is same as slope of IC. It is determining by consumer himself. It is measured as $\frac{\Delta Y}{\Delta X}$. (Refer Table)

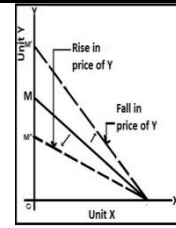
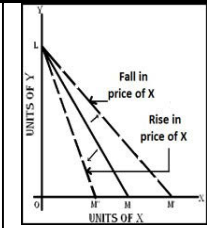
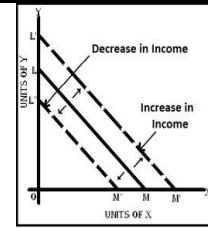
MONOTONIC PREFERENCE - When between two consumption bundles, the consumers prefers that bundle in which he has more of at least one good but no less of others. In two bundles 3X+4Y and 3X+5Y, 3X+5Y is monotonic.

Indifference map - A set of ICs drawn in a graph is known as Indifference map. Its need not to parallel to each other and never touches axis.



REASONS FOR DIMINISHING M.R.S. – When a consumer substitute X good for Y, the MU of X declines while the Y good which the consumer scarifies shows the increase MU to him. That is why he is willing to give up lesser and lesser unit of Y to gain an additional unit of X. Y another

SHIFT IN BUDGET LINE – Shift in Budget line happens due to two reasons – (1) When money income of the consumer changes; (2) When prices of the product changes (Change in real Income).



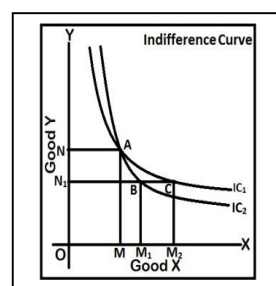
PROPERTIES OF I.C.

1. SLOPES DOWNWARD – It indicates that I a consumer want to have more quantity of one good; he must be ready to give up some quantity of another good to keep his satisfaction level constant.

2. CONVEX TO THE ORIGIN- Curve can be straight line (when MRS_{xy} is constant), Concave (when MRS_{xy} is increasing) and convex (when MRS_{xy} is diminishing) to the origin. Diminishing MRS_{xy} is responsible for convexity of IC.

3. HIGHER IC REPRESENT HIGHER SATISFACTION – Due to monotonic preference higher IC represent higher level of satisfaction.

4. TWO IC NEVER INTERSECT EACH OTHER – Each IC represent an unique level of satisfaction so if two IC intersect each other it



will show the distinct scale of satisfaction have a common intersecting point. Satisfaction at A&B is same (IC1) and A&C are same (IC2). If A=B and A=C, then B&C should give same level of satisfaction. But when we look at the diagram, we find that satisfaction at C>B, So two IC can never intersect each other.

5. IC NEVER TOUCHES THE AXIS – As consumption of one good cannot be zero.

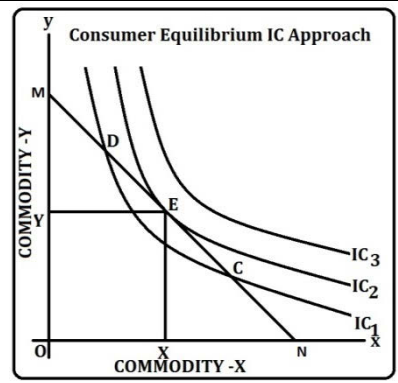
CONSUMER EQUILIBRIUM WITH IC APPROACH

Consumer's equilibrium refers to the optimum choice of the consumer when he maximizes his satisfaction. In IC approach consumer reaches on equilibrium when **three conditions** are satisfied.

1. MRS_{xy} (slope of IC) = Px/Py (MRE - slope of Budget Line) -

2. IC is convex to the origin at the point of equilibrium – it means MRS_{xy} must be diminishing.

3. Budget line should be tangent to the highest possible IC.



MN is the budget line of consumer. IC1, IC2 and IC3 are various indifference curves representing different scales of satisfaction. Bundle D and C cost the same as bundle E, but D & C lie on a lower IC, so they represent a comparatively lower level of satisfaction. Bundle E is the bundle where both the conditions get satisfied. In equilibrium, the consumer will consumes X quantity of good x and Y quantity of good Y.

MRS _{xy} > Px / Py	MRS _{xy} = Px / Py	MRS _{xy} < Px / Py
<p><u>MRS_{xy} = Px/Py,</u> MRS_{xy} = 6, Px=4, Py=2 $MRS_{xy} = \frac{Px}{Py} \quad 6 = \frac{4}{2}$ $6 \neq 2, \quad 6 > 2$ Consumer will not be in equilibrium. In this case consumer is willing to pay more than the actual price for good X. As a result, he will increase the consumption of X which leads to fall in the utility of good X and finally, MRS_{xy} starts falling till the time $MRS_{xy} = \frac{Px}{Py}$</p>	<p><u>MRS_{xy} = Px/Py</u> MRS_{xy} = 3, Px = 6, Py=2 $MRS_{xy} = \frac{Px}{Py}$ $3 = \frac{6}{2} \quad 3 = 3$ Consumer will be in equilibrium. There will be no change in consumption.</p>	<p><u>MRS_{xy} = Px/Py,</u> MRS_{xy} = 2, Px=6, Py=2 $MRS_{xy} = \frac{Px}{Py} \quad 2 = \frac{6}{2}$ $2 \neq 3, \quad 2 < 3$ Consumer will not be in equilibrium. In this case consumer is willing to pay less than the actual price for good X. As a result, he will decrease the consumption of X which leads to increase in the utility of good X and finally, MRS_{xy} starts rising till the time $MRS_{xy} = \frac{Px}{Py}$</p>

DEMAND ANALYSIS

DEMAND – Demand for a commodity refers to the quantity that a consumer is willing and able to buy at a given price in the market, per time. (Desire + Sufficient Purchasing Power + Willingness to Spend + Time + Price)

INDIVIDUAL DEMAND - It refers to the quantity of a commodity which an individual consumer is willing to buy at a given price at a given point of time.

MARKET DEMAND - It refers to the sum total of the quantities demanded by all the individuals' households in the market at a given price and at a given point of time.

DEMAND SCHEDULE – It is a table showing various levels of quantity demanded of a product corresponding to each given level of price.

INDIVIDUAL DEMAND SCHEDULE - It is a table showing various levels of quantity demanded of a product that an individual consumer is willing to buy corresponding to each given level of price.

MARKET DEMAND SCHEDULE - It is a table showing various levels of market demand at each level of price.

Demand Function – $D = f(P, Y, Pr, T, Ex, Pc, Di)$

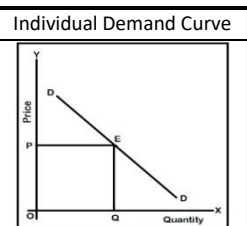
Individual Demand Function – $D = f(P, Y, Pr, T, Ex)$

Law of Demand – Law of Demand states that an inverse relationship between price and quantity demanded and vice-versa. It means "Ceteris Paribus, when a product price increases, less quantity of it is demanded and vice-versa. (Individual Demand Schedule and Demand Curve will be drawn with this statement).

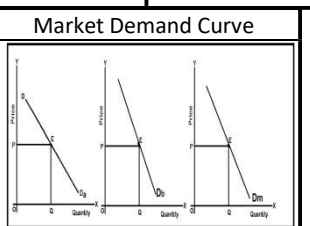
Cases where Giffen and Inferior Goods law of Demand not Applicable – (1) Prestigious Consumption; (2) Extreme Necessities; (3) Future Expectation of Price Change.

DEMAND CURVE – It is the graphical representation of demand schedule.

Indiv Schedule	Individual Demand Curve
P	Q.D.
5	1
4	2
3	3
2	4



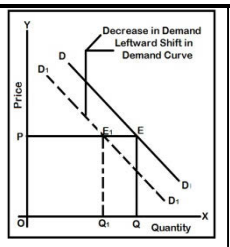
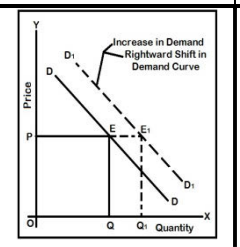
Market Demand Schedule				
P	D _A	D _B	D _C	D _M
5	1	2	3	6
4	2	3	4	9
3	3	4	5	12
2	4	5	6	15



FACTORS AFFECTING DEMAND	
1. Price of the Commodity	INDIVIDUAL DEMAND MARKET DEMAND
2. Income of Consumer	
3. Price of Related Goods	
4. Taste and Preference	
5. Expectation about Change in Price	
6. Size and Composition of Population	
7. Distribution of Income	
8. Season and Whether	

Reasons for Rightward Shift

- Increase in Income
- Increase in Price of Substitute
- Decrease in Price of Complementary
- Favorable Change in Taste and Preference;
- Expectation to Rise in Price in Future
- Favorable Change in Population
- Favorable Change in Distribution of Income



Reasons for Leftward Shift

- Decrease in Income
- Decrease in Price of Substitute
- Increase in Price of Complementary
- Unfavorable Change in Taste and Preference;
- Expectation to Fall in Price in Future
- Unfavorable Change in Population
- Unfavorable Change in Distribution of Income

EXPANSION IN DEMAND

When there is change in Quantity demanded due to fall in Price of its own.

In this situation consumer move downward on the same demand curve.

It is known as "Change in Quantity Demanded"

INCREASE IN DEMAND

When change in demand due to rise in income, fall in price of comp. Goods, rise in price of substitute goods etc.

In this situation demand curve shift rightward.

It is known as "Change in Demand"

CONTRACTION IN DEMAND

When there is change in Quantity demanded due to rise in Price of its own.

In this situation consumer move upward on the same demand curve.

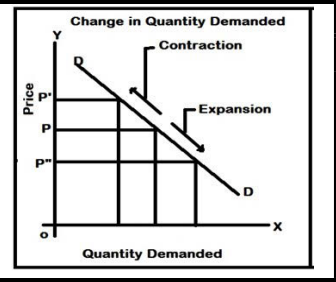
It is known as "Change in Quantity Demanded"

DECREASE IN DEMAND

When change in demand due to fall in income, rise in price of comp. Goods, fall in price of substitute goods etc.

In this situation demand curve shift leftward.

It is known as "Change in Demand"

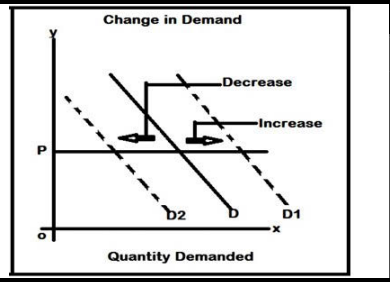


NORMAL GOODS

- Demand varies directly with income level.
 - ↑Y ↑Demand
 - ↓Y ↓Demand
- Demand curve shift right/left with rise/fall in income.
- Income effect is positive.

INFERIOR GOODS

- Demand varies inversely with income level.
 - ↑Y ↓Demand
 - ↓Y ↑Demand
- Demand curve shift left/right with rise/fall in income.
- Income effect is negative.



Change In Price Of Related Goods And Its Impact On Demand Of Given Commodity									
Substitute Goods					Complimentary Goods				
Tea	Coffee	P _s and Q _g are positively related. When P _s rises, given commodity is cheaper in comparison to substitute, so Q _g rises. On the other hand if P _s falls, given commodity is costlier in comparison to substitute, so Q _g falls. (In both cases price of given is remain constant)			Petrol	Car	P _c and Q _g are inversely related. When P _c rises, Q _c falls, as to satisfy a particular want both will be used together so Q _g also falls. On the other hand if P _c falls, Q _c rises, as to satisfy a particular want both will be used together so, Q _g also rises. (In both cases price of given is remain constant)		
P _g	Q _g	P _s	Q _s		P _g	Q _g	P _c	Q _c	
10	10	10	10		10	10	10	10	
10	15	15	5		10	5	15	5	
P=	D _↑	P _↑	D _↓		P=	D _↓	P _↑	D _↓	
10	5	5	15		10	15	5	15	
P=	D _↓	P _↓	D _↑		P=	D _↑	P _↓	D _↑	

ELASTICITY OF DEMAND

PRICE ELASTICITY OF DEMAND - Elasticity of demand refers to the degree of responsiveness of a commodity with reference to a change in price of such commodity. It is always Negative due to inverse relationship between price and quantity demanded.

TOTAL EXPENDITURE (OUTLAY) METHOD - Change in price of a good causes change in total expenditure incurred by a consumer on a good. In this we study the effect of change in price of the good on its total expenditure.

PERCENTAGE AND PROPORTIONATE METHOD

According to this method P_{ed} is measured as a ratio of %age change in quantity demanded to %age change in price of a commodity.

Price Elasticity of Demand = $\frac{\% \text{age change in Quantity Demanded}}{\% \text{age Change in Price}} \times 100$

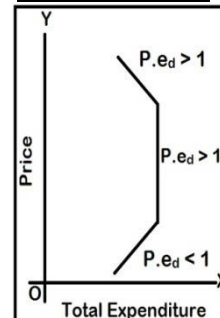
%age change in Quantity = $\frac{\text{New Quantity (Q1)} - \text{Old Quantity (Q)}}{\text{Old Quantity (Q)}} \times 100$

%age change in Price = $\frac{\text{New Price (P1)} - \text{Old Price (P)}}{\text{Old Price (P)}} \times 100$

%age change in Quantity = $\frac{\Delta Q}{Q} \times 100$

%age change in Price = $\frac{\Delta P}{P} \times 100$ OR $P_{ed} = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$

TOTAL EXPENDITURE (OUTLAY) METHOD



ELASTICITY OF DEMAND - TOTAL EXPENDITURE METHOD

P	Q	TE	Change	Nature	Result
1	6	6	$P \uparrow TE \uparrow$	Positive relation between price and Total Expenditure	$P_{ed} < 1$
2	5	10	$P \downarrow TE \downarrow$		
3	4	12	$P \uparrow TE \leftrightarrow$	Price changes but No change in Total Expenditure	$P_{ed} = 1$
4	3	12	$P \downarrow TE \leftrightarrow$		
5	2	10	$P \uparrow TE \downarrow$	Inverse relation between price and Total Expenditure	$P_{ed} > 1$
6	1	6	$P \downarrow TE \uparrow$		

P. = Price, Q. = Quantity, T.E. = Total Expenditure

DEGREES OF ELASTICITY OF DEMAND

Perfectly elastic demand ($P_{ed} = \infty$)

When the demand becomes zero with a slight rise in price or when the demand is infinite with slight fall in price.

P.	Q.D.	$P_{ed} = \frac{\Delta P}{\Delta Q} = 0$
10	4	
10	6	
10	2	

More than Unitary Elastic ($P_{ed} > 1$)

When proportionate change in quantity demanded is more than proportionate change in price, it is said to be more than unitary elastic demand.

P.	Q.D.	$P_{ed} = \frac{\Delta Q}{\Delta P} > \frac{\Delta P}{P}$
10	100	
15	30	
↑		
5↓	180	

Unitary elastic Demand ($P_{ed} = 1$)

When proportionate change in quantity demanded is equal to proportionate change in price, then it is said to be less than unitary elastic demand.

P.	Q.D.	$P_{ed} = \frac{\Delta Q}{\Delta P} = \frac{\Delta P}{P}$
10	100	
15	50	
↑		
5↓	150	

Less than unitary elastic Demand ($P_{ed} < 1$)

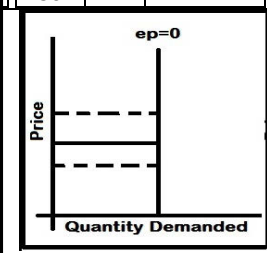
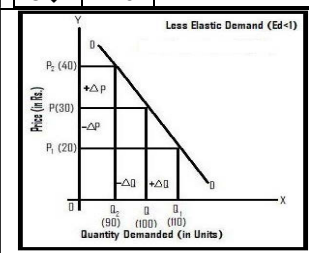
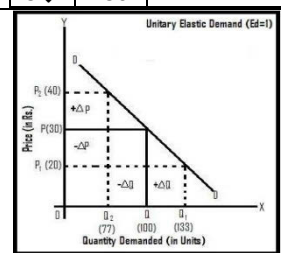
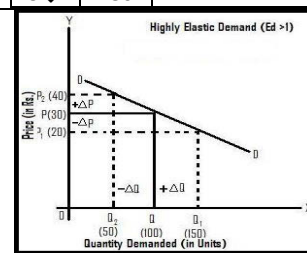
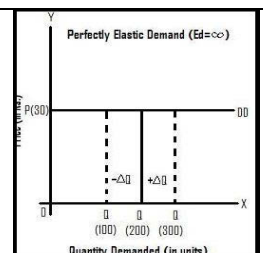
When the proportionate change in quantity demanded is less than proportionate change in price, then it is said to be less than unitary elastic demand.

P.	Q.D.	$P_{ed} = \frac{\Delta Q}{\Delta P} < \frac{\Delta P}{P}$
10	100	
15	80	
↑		
5↓	120	

Perfectly inelastic Demand ($P_{ed} = 0$)

When there is no change in quantity demanded with the change in its price, it is perfectly inelastic demanded.

P.	QD	$P_{ed} = \frac{\Delta Q}{\Delta P} = 0$
10	2	
20	2	
↑		
30	2	



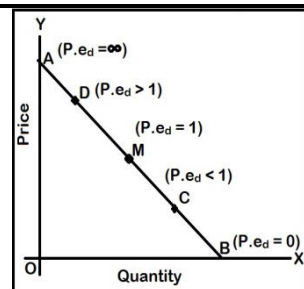
GEOMETRIC METHOD

It is used when elasticity of demand is to be measured at different points on the straight line or linear demand curve.

P_{ed} Lower segment of the demand curve
Upper segment of the demand curve, In a straight demand curve -

at point A = $\frac{Ab}{0} = \infty$
at point B = $\frac{0}{AB} = 0$

at point M = $\frac{MB}{MA} = 1$ (MB = MA)
at point D = $\frac{DB}{DA} > 1$ (DB > DA)
at point C = $\frac{CA}{CB} < 1$ (CB < CA)



Degrees of Price Elasticity of Demand

Perfectly Elastic Demand

$P_{ed} = \infty$ AC

Perfectly Inelastic Demand

$P_{ed} = 0$ AP

Unitary Elastic Demand

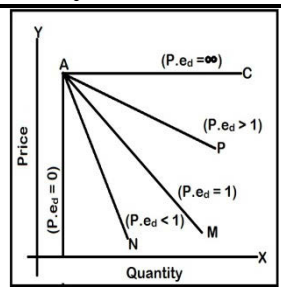
$P_{ed} = 1$ AM

Highly Elastic Demand

$P_{ed} > 1$ AP

Less Elastic Demand

$P_{ed} < 1$ AN



DEGREES / TYPES OF P_{ed}

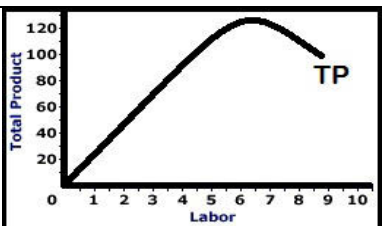
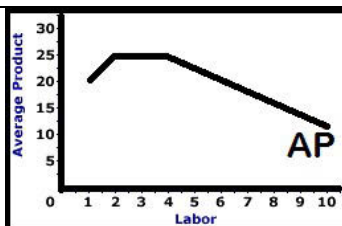
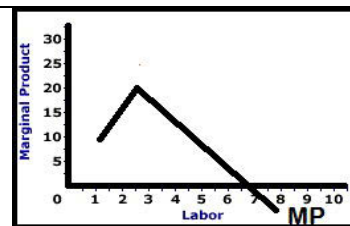
TYPES OF GOODS

Perfectly Elastic Demand ($P_{ed} = \infty$)	Imaginary Situation like perfect competition
Perfectly Inelastic Demand ($P_{ed} = 0$)	Essentials like life saving drugs, salt, books etc.
Unitary elastic Demand ($P_{ed} = 1$)	Normal goods like fans, scooter, T.V. etc.
High Elastic Demand ($P_{ed} > 1$)	Luxurious like eating in 5 star hoptel, AC, Plasma TV etc
Less Elastic Demand ($P_{ed} < 1$)	Necessities like food, fuel, seasonal vegetables etc.

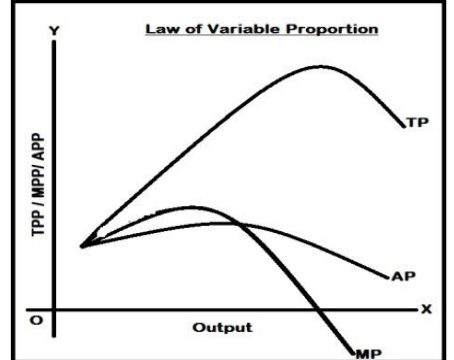
FACTORS AFFECTING ELASTICITY OF DEMAND

LESS ELASTIC DEMAND	FACTORS	HIGH ELASTIC DEMAND
Necessities	NATURE OF COMMODITY	Luxurious
If not Available	AVAILABILITY OF SUBSTITUTE	If Available
Minor Part of Income	PORTION OF TOTAL EXPENDITURE	Major Part of Income
Habituated	HABITS	Not Habituated
Shorter	TIME PERIOD	Longer
Few / Single Use	USES OF COMMODITY	Many Uses
Very High / Low	LEVEL OF INCOME	Middle Income
Low Priced	LEVEL OF PRICE	High Priced

PRODUCTION FUNCTION – SHORT RUN AND LONG RUN FUNCTION

PRODUCTION FUNCTION – It is a technical relationship between physical input and physical output of a firm. $Q = f(L, Lr, C, E)$. L = Land; Lr = Labour; C = Capital; E = Entrepreneur.	TOTAL PHYSICAL PRODUCT – The Aggregate quantity of a product by a firm with the help of a specific input combination (one variable and other fixed) is called the firm's total product. $TP = \sum MP$ $TP = AP \times \text{No of Variable Fact}$	AVERAGE PHYSICAL PRODUCT – AP is defined as the output per unit of variable input. It is obtained by dividing Total Product by the quantity of variable factor. $AP = TP / \text{No. of Variable Factor}$	MARGINAL PHYSICAL PRODUCT – It is defined as change in total product when an additional unit of Variable factor get employed, keeping other factors fixed. $MP_n = TP_n - TP_{n-1}$ $MP = \Delta TP / \Delta \text{Variable Factor}$
ISO QUANTS – An Isoquants is the set of all possible combination of two inputs that yield same level of output. it is downward sloping like IC. A set of Isoquants is called Isoquant map.			

FIXED FACTORS	VARIABLE FACTORS	SHORT RUN PRODUCTION FUNCTION – LAW OF VARIABLE PROPORTION																																																										
Factors which cannot be change in short run	Factors which can be changed in short run	When quantity of one variable factor is increased in the short run by keeping other factors constant, the firm's Total Product (See the behavior) & Marginal Product (See the Behavior)-																																																										
Factors which fixed in short run but variable in long run.	Factors which are always variable short run as well as long run.	Behavior of Total Product	TP increases with increases rate.	TP increases with diminishing rate.	TP Maximum	TP starts falling																																																						
Land, building, machine, top Management.	Labour and working capital, raw materials, fuel and power etc.	Behavior of Marginal Product	MP Increases	MP decreases	MP becomes zero	MP becomes negative																																																						
STAGE OF A FIRM'S OPERATION – A rational producer would always wish to decide his production in second stage where the firm can maximize his production even though the returns are diminishing. Hence, the second stage is known as the stage of a firm's operation.		Behavior of Average Product	AP increases	AP increases and intersects Mp and then starts falling.	AP decreases	AP decreases																																																						
		Stages of Production	Increasing Returns to a Factor	Increasing Returns to a Factor	Constant Returns to a Factor	Negative Returns to a Factors																																																						
SHORT RUN	LONG RUN	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>F.F.</th> <th>V.F.</th> <th>T.P.</th> <th>M.P.</th> <th>A.P.</th> <th>Stage</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>1</td> <td>20</td> <td>20</td> <td>20</td> <td rowspan="3" style="text-align: center;">First</td> </tr> <tr> <td>3</td> <td>2</td> <td>50</td> <td>30</td> <td>25</td> </tr> <tr> <td>3</td> <td>3</td> <td>90</td> <td>40</td> <td>30</td> </tr> <tr> <td>3</td> <td>4</td> <td>120</td> <td>30</td> <td>30</td> <td rowspan="3" style="text-align: center;">Second</td> </tr> <tr> <td>3</td> <td>5</td> <td>140</td> <td>20</td> <td>28</td> </tr> <tr> <td>3</td> <td>6</td> <td>150</td> <td>10</td> <td>25</td> </tr> <tr> <td>3</td> <td>7</td> <td>150</td> <td>0</td> <td>21.4</td> <td rowspan="3" style="text-align: center;">Third</td> </tr> <tr> <td>3</td> <td>8</td> <td>140</td> <td>-10</td> <td>17.5</td> </tr> <tr> <td>3</td> <td>9</td> <td>120</td> <td>-20</td> <td>13.33</td> </tr> </tbody> </table>					F.F.	V.F.	T.P.	M.P.	A.P.	Stage	3	1	20	20	20	First	3	2	50	30	25	3	3	90	40	30	3	4	120	30	30	Second	3	5	140	20	28	3	6	150	10	25	3	7	150	0	21.4	Third	3	8	140	-10	17.5	3	9	120	-20	13.33
F.F.	V.F.						T.P.	M.P.	A.P.	Stage																																																		
3	1						20	20	20	First																																																		
3	2						50	30	25																																																			
3	3						90	40	30																																																			
3	4	120	30	30	Second																																																							
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Time period which is less than the minimum period required for the change of inputs.	Time period, which is long enough to change all the inputs.																																																											
Some inputs are variable	All inputs are variable																																																											
Production can be changed only up to level of production by changing variable production.	Production can be changed by changing scale or changing all inputs simultaneously.																																																											
Entry and exit is restricted of New firm in industry.	Entry and exit is not restricted of New firm in industry.																																																											



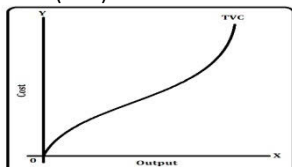
RETURNS TO A FACTOR	RETURNS TO SCALE	INCREASING RETURN TO A FACTOR	DIMINISHING RETURNS TO A FACTOR	NEGATIVE RETURNS TO A FACTOR
A change in total product caused by change in the quantity of only one variable factor.	A change in total product due to simultaneous & proportionate changes in the quantity of all factors.	1. Better utilization of underutilized fixed factors. 2. Labour division benefits. 3. Efficient use / utilization of variable factor. 4. Better coordination	1. Inadequate factor proportion. 2. Optimum combination. 3. Imperfect substitution of factors 4. Poor Coordination 5. Over utilization (F. Factor)	1. Fixity of Fixed Factors. 2. Defective factor ratio 3. Overcrowding of Variable Factors.
It is short run production function.	It is long run production function.	RETURNS TO SCALE – When a firm changes its scale of production by changing quality of fixed and variable factors in same proportion. The laws under returns to scale are- IRS, CRS, DRS. Increasing Returns to Scale – Percentage increase in output is more than percentage increase in all factor inputs. (%age change in land and labour is 100% and Production 150%) Constant Returns to Scale – Percentage increase in output is equal to percentage increase in all factor inputs. (%age change in land and labour is 100% and Production 100%) Negative Returns to Scale – Percentage increase in output is less than percentage increase in all factor inputs. (%age change in land and labour is 100% and Production 50%). ECONOMIES OF SCALE – Internal – Technical economies; labour economies; managerial economies. External – Information; concentration; disintegration; Diseconomies – Inefficient management; Lack of availability of skilled labour inputs, inefficient investment.		
Production can be changed only up to level of production by changing variable production.	Production can be changed by changing scale or changing all inputs simultaneously.			
Factor proportion keeps changing.	All factors are increased proportionately.			

COST ANALYSIS

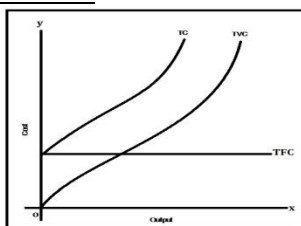
Total Fixed Costs - Which don't vary with the change in the level of output (These are also called overhead costs) like rent of land, building, machines etc. Fixed Costs are also called Total Fixed Costs (TFC).



Total Variable Costs - These costs vary directly with the change in the level of output like labour cost, cost of raw material etc. Variable Costs are also called Total Variable Costs (TVC).



Total Cost - The sum total of money expenses incurred by firm in production of a commodity is called cost of production. **TC = TVC + TFC**



$$TFC = TC - TVC \text{ or } TFC = AFC \times Q \text{ or } TFC = TC \text{ at } 0 \text{ Output}$$

$$TVC = TC - TFC \text{ or } TVC = AVC \times Q \text{ or } TVC = \sum MC$$

$$TC = TVC + TFC \text{ or } TC = AC \times Q \text{ or } TC = \sum MC + TFC$$

$$MC_n = TC_n - TC_{n-1} \text{ or } MC_n = TVC_n - TVC_{n-1}$$

$$AFC = TFC/Q \text{ or } AFC = AC - AVC \text{ or } ATC - AVC$$

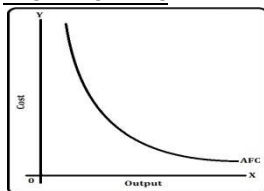
$$AVC = TVC/Q \text{ or } AVC = AC - AFC \text{ or } ATC - AFC$$

$$AC = TC/Q \text{ or } AC = AVC + AFC$$

Average Fixed Cost - It is the fixed cost per unit of output. AFC continuously decreases with increase in output as TFC is remain constant. Its shape is rectangular hyperbola.

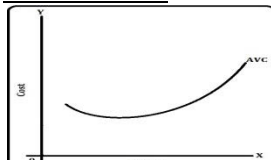
$$AFC = TFC/Q$$

$$AFC = ATC - AVC$$



Average Variable Cost - It is the cost of variable per unit of output. AVC is u shaped which shows it first fall then reaches its minimum and the rises. It is determine by the Law of Variable Proportion. **AVC = TVC/Q**

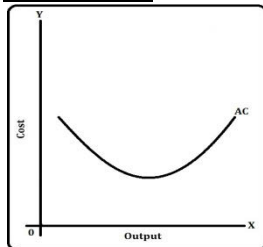
$$AVC = ATC - AFC$$



Average Total Cost - Average Cost or Average Total Cost per unit of output factors of production.

$$ATC = TC/Q$$

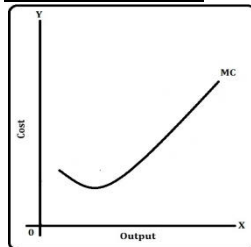
$$TC = AFC + AVC$$



Marginal Cost - Marginal Cost is the addition to total cost when an extra unit of output is produced.

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

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

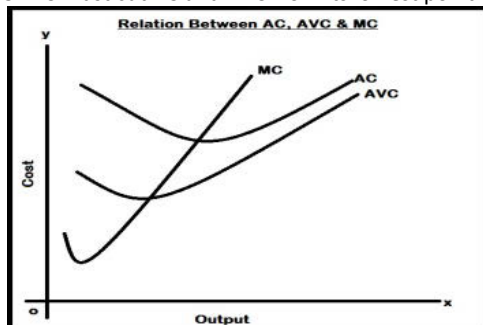


Relationship between Total Cost (TC), Total Fixed Cost (TFC) and Marginal Cost (MC)

- 1- TC and TVC are inversely S shaped because they initially rise at the decreasing rate, then at the constant rate and finally at the increasing rate.
- 2- At zero level of output there is no variable cost, so TC=TFC
- 3- TC and TVC are parallel to each other and the vertical distance between them is TFC which remains fixed.

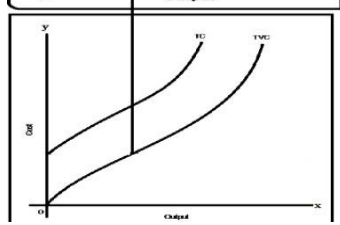
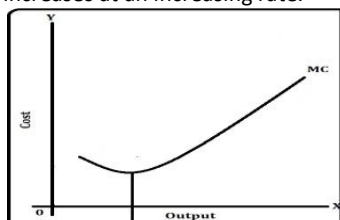
Relation Ship Between (AC), (AVC) and (MC)

- 1-When AC and AVC declines, MC declines faster than AC and AVC. So that MC curve Remain below AC curve and AVC curve.
- 2-When AVC increases, MC increases faster than AVC. So that MC is above AVC curve.
- 3-When AC increases, MC increases faster than AC. So that MC is above AC curve.
- 4-Since MC declines faster than AC and AVC its reaches its lowest point earlier than AC and AVC. So that MC starts rising even AC and AVC is falling.
- 5-MC must cut AC and AVC from its lowest point.



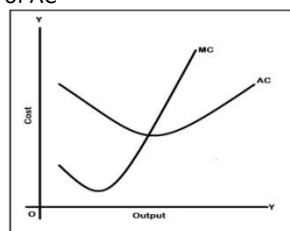
Relationship between Total Cost (TC) and Marginal Cost (MC)

- 1-When MC is falling, TC/TVC increases at a diminishing rate.
- 2-When MC is minimum, TC/TVC stops increasing at a diminishing rate.
- 3-When MC is rising, TC/TVC increases at an increasing rate.



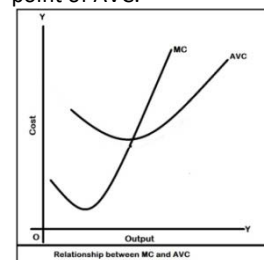
Relationship between Average Cost (AC) and Marginal Cost (MC)

- 1-Both are calculated from TC.
- 2-When AC falls, MC is less than AC.
- 3 - When MC = AC, AC is minimum.
- 4- When AC increases, MC is greater than AC.
- 5- MC curve cuts AC curve from below.
- 6- Minimum point of MC comes before minimum point of AC



Relationship between Average Variable Cost (AVC) and Marginal Cost (MC)

- 1-When MC curve lies below AVC curve, AVC decreases.
- 2-When MC curve lies above AVC curve, AVC increases.
- 3-MC curve intersect AVC at its minimum point.
- 4-The lowest point of MC comes before the lowest point of AVC.



Money Cost - Money expenses incurred by a firm for producing a commodity or services.

Explicit Cost - Actual payment made on hired factors of production. Ex. Wages paid to hired labors, Rent paid for hired accommodation, cost of Raw material etc.

Implicit Cost - Cost incurred on the self owned factors of production. Ex. Interest on owners capital, rent of own building, Salary for the services of entrepreneurs.

Opportunity Cost - It is the cost of next best alternative foregone.

Total Fixed Cost - Do not vary with the level of output, Cannot be changed in short period, Can never be Zero, Cost incurred on fixed factors of production, Parallel to X axis.

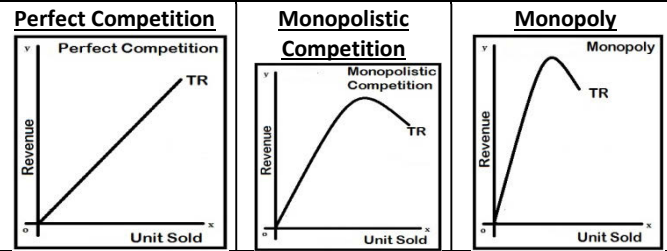
Total Variable Cost - Vary with the level of output, Can be changed in short period, Zero at zero output, Cost incurred on all variable factors of production, Upward sloping Curve .

REVENUE AND PRODUCER'S EQUILIBRIUM

Revenue - Money received by a firm from the sale of a given output in the market.

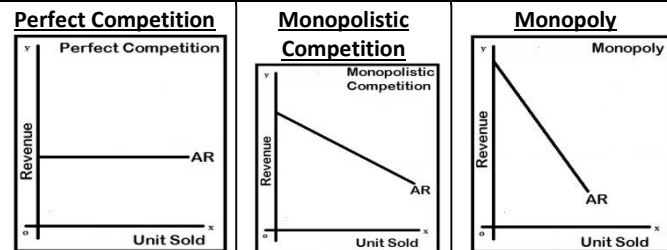
Total Revenue - Total sale receipts or receipts from the sale of given output.

$TR = \text{Quantity sold} \times \text{Price (or) output sold} \times \text{price}$



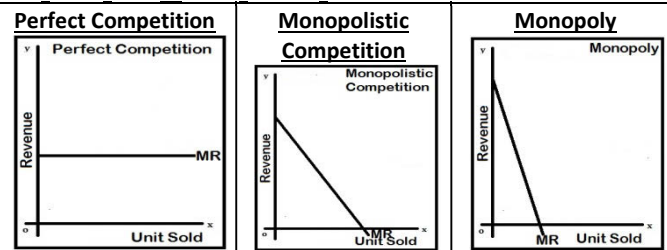
AVERAGE REVENUE - Revenue or Receipt received per unit of output sold. $AR = TR / \text{Output sold}$.

AR and price are the same - $TR = \text{Quantity sold} \times \text{price or output sold} \times \text{price}$. $AR = (\text{output} / \text{quantity} \times \text{price}) / \text{Output} / \text{quantity}$. $AR = \text{price}$. AR and demand curve are the same. Shows the various quantities demanded at various prices.



MARGINAL REVENUE - Additional revenue earned by the seller by selling an additional unit of output.

$MR_n = TR_n - TR_{n-1}$; $MR_n = \Delta TR_n / \Delta Q$; $TR = \sum MR$



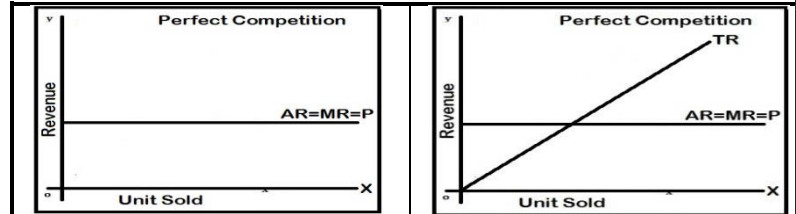
Units	PERFECT COMPETITION				IMPERFECT COMPETITION			
	Price	TR	AR	MR	Price	TR	AR	MR
1	5	5	5	5	10	10	10	10
2	5	10	5	5	9	9	18	8
3	5	15	5	5	8	8	24	6
4	5	20	5	5	7	7	28	4
5	5	25	5	5	6	6	30	2
					5	5	30	0
					4	4	28	-2

Output	PERFECT COMPETITION									
	1	2	3	4	5	6	7			
T C	7	15	22	28	33	40	48	Perfect Competition		
MC (PC)	--	8	7	6	5	7	8			
Price (PC)	7	7	7	7	7	7	7			
TR (PC)	7	14	21	28	35	42	49			
MR (PC)	7	7	7	7	7	7	7			
Output	IMPERFECT COMPETITION									
	1	2	3	4	5	6	7			
	T C	4	9	15	22	30	39		49	Imperfect Competition
	MC (PC)	--	5	6	7	8	9		10	
	Price (IPC)	10	9.5	9	8.5	8	7.5		7	
TR (IPC)	10	19	27	34	40	45	49			
MR (IPC)	10	9	8	7	6	5	4			

SHUT DOWN POINT - Close down situation takes place when the price is too low that it cannot cover the fixed cost at all. It just covers the variable costs. When $AR = AVC$ or $P < AC$ or $P = AVC$. **BREAK EVEN POINT** - The situation of breakeven point takes place when the price is low and less than AC but more than AVC. $AR = AC$ or $P = AC$. **SUPER NORMAL PROFIT** - When $AR > AC$. **TOTAL LOSS MINIMIZED** - When $AR < AC$, $AR > AVC$.

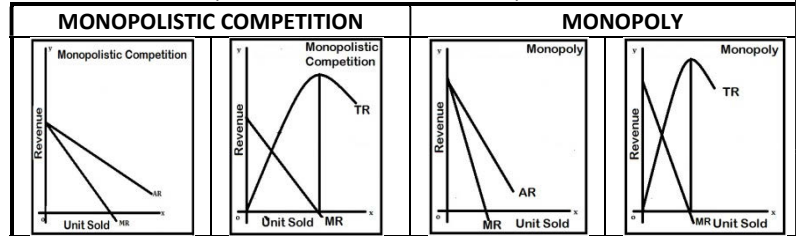
© Dr. Asad Ahmad, PGT (Economics), K.V.I.I.M. Campus, Lucknow. 09451927636, 08889341805

RELATIONSHIP BETWEEN AR AND MR (when price remains constant or perfect competition) - Under perfect competition, the sellers are price takers. Single price prevails in the Market. Since all the goods are homogeneous and are sold at the same price $AR = MR$. As a Result AR and MR curve will be horizontal straight line parallel to OX axis. (When price is constant or perfect competition)



RELATIONSHIP BETWEEN TR AND MR (When price remains constant or in perfect competition) - When there exists single price, the seller can sell any quantity at that price, the total revenue increases at a constant rate (MR is horizontal to X axis and TR is straight line curve showing constant increase).

RELATIONSHIP BETWEEN AR AND MR UNDER MONOPOLY AND MONOPOLISTIC COMPETITION - (Price changes or under imperfect competition) - * AR and MR curves will be downward sloping in both the market forms. * AR lies above MR. * AR can never be negative. * AR curve is less elastic in monopoly market form because of no substitutes. * AR curve is more elastic in monopolistic market because of the presence of substitutes.



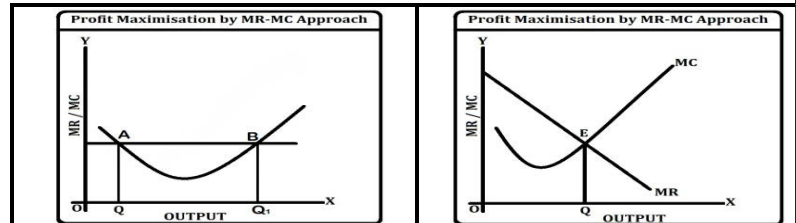
RELATIONSHIP BETWEEN TR AND MR - (When price falls with the increase in sale of output) - Under imperfect market AR will be downward sloping - which shows that more units can be sold only at a less price. * MR falls with every fall in AR / price and lies below AR curve. * TR increases as long as MR is positive. * TR falls when MR is negative. * TR will be maximum when MR is zero.

PRODUCER'S EQUILIBRIUM : MC=MR APPROACH

Producer's equilibrium refers to the level of output of a commodity which gives the maximum profit to the producer of the commodity.

MC= MR approach - MC= MR approach is another way of identifying producer's equilibrium. The two condition of MC= MR approach become.

- (i) $MC = MR$; (ii) MC is greater than MR after the $MC = MR$ output level.
- (i) $MC = MR$ - Profit is maximum a level of output where $MR = MC$. A producer will not be in equilibrium if $MR > MC$ or $MC > MR$.
- (ii) MC should be rising or $MC > MR$ after equilibrium or MC cuts MR from below.



Note that the first condition ($MC = MR$) is satisfied both at A and B. But the second condition - MC Curve intersects MR curve from below - is satisfied only at B. After B, MC becomes greater than MR . Then the equilibrium output level is OQ_1 . When a producer can sell more only by lowering the price, the MR curve is downward sloping. The typical MC curve is U-shaped.

SUPPLY ANALYSIS

SUPPLY – It is that quantity of a commodity which a seller or producer is ready to sell in the market at a certain price within a given time period.

INDIVIDUAL SUPPLY – It refers to quantity of a commodity that an individual firm is willing and able to offer for sale in the market at a given price per time period.

MARKET SUPPLY - It refers to the aggregate quantity of a commodity that all the firms are willing and able to offer for sale together at each possible price during a given period of time.

SUPPLY SCHEDULE – It is a table which shows various level of quantity of a commodity supplied at different prices during a given period of time.

INDIVIDUAL SUPPLY SCHEDULE - It is a table showing various level of quantity of a product that an individual producer is willing to sell corresponding to each given level of price.

MARKET SUPPLY SCHEDULE - It is table showing various level of quantity of a product that all the firm together offer to sale at each level of price.

Supply Function – $S = f(P_x, P_r, T, G, O, P_i, F, N, C)$

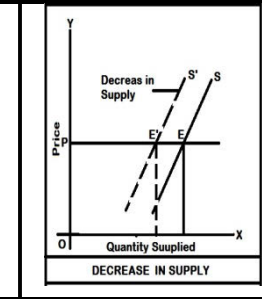
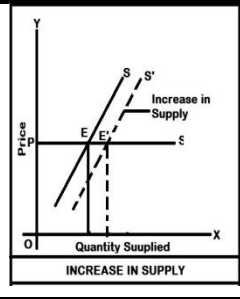
Individual Supply Function- $S = f(P_x, P_r, T, G, O, P_i)$

Law of Demand – Other things being constant, there is a direct relation between price of a commodity and its quantity supplied i.e. higher the price more the supply and vice-versa. In other words we can say as price rises producer will increase supply and as price falls supply will also fall. (Individual Supply Schedule and Supply Curve will be drawn with this statement).

SUPPLY CURVE – It shows the quantity of commodity (Plotted on the X-axis) that the firm chooses to produce corresponding to different prices in the market (plotted on the Y-axis). Geographical representation of supply schedule is supply curve.

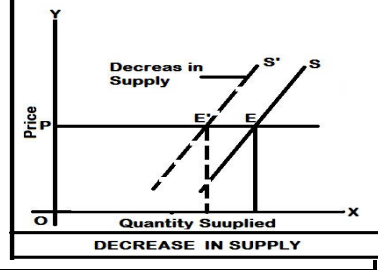
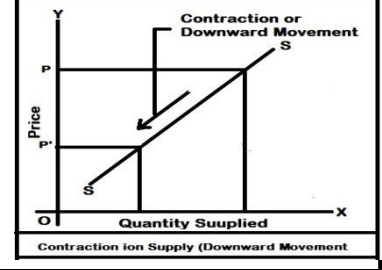
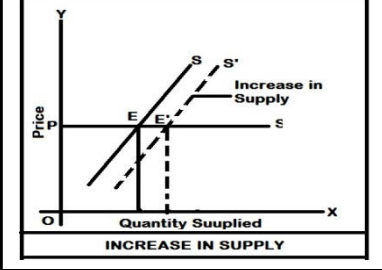
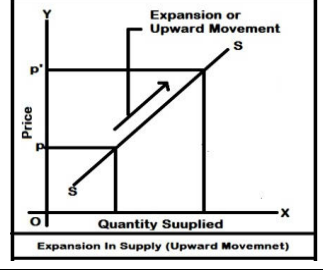
Individual Schedule		Individual Supply Curve		Market Supply Schedule					Market Supply Curve				FACTORS AFFECTING SUPPLY																									
P	Q.S.		<table border="1" style="font-size: small;"> <tr><th>P</th><th>S_A</th><th>S_B</th><th>S_C</th><th>S_M</th></tr> <tr><td>5</td><td>8</td><td>7</td><td>6</td><td>21</td></tr> <tr><td>4</td><td>7</td><td>6</td><td>5</td><td>18</td></tr> <tr><td>3</td><td>6</td><td>5</td><td>4</td><td>15</td></tr> <tr><td>2</td><td>5</td><td>4</td><td>3</td><td>12</td></tr> </table>	P	S _A	S _B	S _C	S _M	5	8	7	6	21	4	7	6	5	18	3	6	5	4	15	2	5	4	3	12	P	S _A	S _B	S _C	S _M		Individual Supply	1. Price of Given Goods in Production (Px)		Market Supply
P	S _A			S _B	S _C	S _M																																
5	8			7	6	21																																
4	7			6	5	18																																
3	6			5	4	15																																
2	5	4	3	12																																		
5	10	5	8	7	6	21	2. Price of Related Goods in Production (Pr)																															
4	8	4	7	6	5	18	3. State Of Technology (T)																															
3	6	3	6	5	4	15	4. Price of Inputs (Pi)																															
2	4	2	5	4	3	12	5. Objective of Firms (O)																															
								6. Taxation Policy (T)																														
								7. Future Anticipation (F)																														
								8. Number of Firms in the Market (N)																														
								9. Climatic Condition (C)																														

- Reasons for Rightward Shift**
1. Decrease in Price of Substitute Goods
 2. Increase in Price of Complementary Goods
 3. Decrease in Price of Factors (Input)
 4. Improvement in Technology
 5. Expectation in fall in Price in Future;
 6. Increase in Number of firms
 7. Good Transport and Communication
 8. Goal of Sale Maximization
 9. Decrease in Taxes



- Reasons for Leftward Shift**
1. Increase in Price of Substitute Goods
 2. Decrease in Price of Complementary Goods
 3. Increase in Price of Factors (Input)
 4. Degrade in Technology
 5. Expectation in Rise in Price in Future;
 6. Decrease in Number of firms
 7. Poor Transport and Communication
 8. Goal of Profit Maximization
 9. Increase in Taxes

EXPANSION IN SUPPLY	INCREASE IN SUPPLY	CONTRACTION IN SUPPLY	DECREASE IN SUPPLY
1. When there is rise in supply due to rise in Price of its own.	1. When rise in supply due to fall in price of inputs, rise in price of related Goods, Increase in Excise duty, Up gradation in technology etc.	1. When there is fall in supply due to fall in Price of its own.	1. When decrease in supply due to De gradation in Technology, Rise in Price of Inputs, Increase in Excise Duty or tax ,Rise in the Price of Related Goods etc.
2. In this situation producer move upward on the same demand curve.	2. In this situation supply curve shift rightward.	2. In this situation consumer move downward on the same supply curve.	2. In this situation supply curve shift leftward.
3. Law of supply is applicable	3. Law of supply is not applicable.	3. Law of supply is applicable	3. Law of supply is not applicable.
4. More is supplied at more prices other things being equal.	4. More is supplied at same price and same is supplied at fewer prices.	4. Less is supplied at less prices other things being equal.	4. Less is supplied at same price and same is supplied at more prices.
5. It is known as "Change in Quantity Supplied"	5. It is known as "Change in Supply"	5. It is known as "Change in Quantity supplied"	5. It is known as "Change in supply"



Exceptions to Law of Supply - *Agricultural Products; * Perishable Goods; * Supply of Rare of Goods; * Disposal of Old Stock; *Non-Availability of Resources.

SUBSTITUTE GOODS				COMPLEMENTARY GOODS			
Pg	Qg	Ps	Qs	Pg	Qg	Pc	Qc
10	10	10	10	10	10	10	10
10	5	15	15	10	15	15	15
P=	↓S	↑P	↑S	P=	↑S	↑P	↑S
10	15	5	5	10	5	5	5
P=	↑S	↓P	↓S	P=	↓S	↓P	↓S

ELASTICITY OF SUPPLY

PRICE ELASTICITY OF SUPPLY - Elasticity of supply refers to the degree of responsiveness of a commodity with reference to a change in price of such commodity. It is always positive due to direct relationship between price and quantity supplied.

Importance of Elasticity of Supply - The importance of elasticity of supply are:

(1) Price Determination: During long period, supply being more elasticity place on important role in determination of price. (2) Factor Pricing: Elasticity of supply helps in factor pricing, when supply of factor is inelastic in short period, extra income is earned in the form of rent. When supply of a factor is perfectly elastic it does not earn extra income as rent.

LESS ELASTIC SUPPLY	FACTORS	HIGH ELASTIC SUPPLY
Perishable Goods – Vegetables, Milk	NATURE OF COMMODITY	Durable Goods – TV, furniture
Short Period	TIME PERIOD	Long Period
Complex Techniques	TECHNIQUES OF PRODUCTION	Simple Techniques
Influenced by Natural Constraints	NATURAL CONSTRAINTS	Do not have Natural Constraints
Producers Not Willing to take Risk	RISK TAKING	Producers Willing to Take Risk
Specialized Factors	NATURE OF INPUTS USED	Common Factors
Law of Increasing Cost	COST OF PRODUCTION	Law of Diminishing Cost

DEGREES OF ELASTICITY OF SUPPLY

Perfectly elastic supply ($P.e_s = \infty$) - When the supply becomes zero with a slight rise in price or when the supply is infinite with slight fall in price.

More than Unitary Elastic ($P.e_s > 1$) - When proportionate change in quantity supplied is more than proportionate change in price, it is said to be more than unitary elastic supply.

Unitary elastic Supply ($P.e_s = 1$) - When proportionate change in quantity supplied is equal to proportionate change in price, then it is said to be less than unitary elastic supply.

Less than unitary elastic supply ($P.e_s < 1$) - When the proportionate change in quantity supplied is less than proportionate change in price, then it is said to be less than unitary elastic supply.

Perfectly inelastic supply ($P.e_s = 0$) - When there is no change in quantity supplied with the change in its price, it is perfectly inelastic supply.

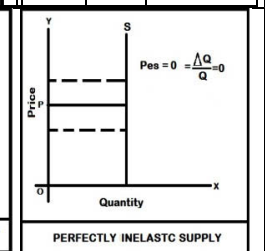
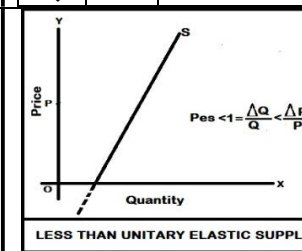
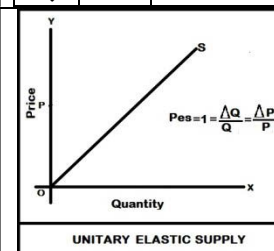
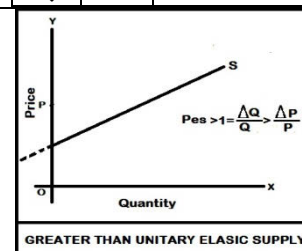
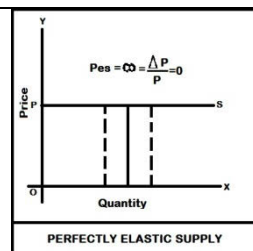
P.	Q.S.	$P.e_s = \frac{\Delta Q}{Q} \div \frac{\Delta P}{P}$
10	2	$\frac{\Delta Q}{Q} \div \frac{\Delta P}{P} = 0$
10	4	
10	6	

P.	Q.S.	$P.e_s = \frac{\Delta Q}{Q} \div \frac{\Delta P}{P}$
10	100	$\frac{\Delta Q}{Q} > \frac{\Delta P}{P}$
15	200	
5↓	30	

P.	Q.S.	$P.e_s = \frac{\Delta Q}{Q} \div \frac{\Delta P}{P}$
10	100	$\frac{\Delta Q}{Q} = \frac{\Delta P}{P}$
15	150	
5↓	50	

P.	Q.S.	$P.e_s = \frac{\Delta Q}{Q} \div \frac{\Delta P}{P}$
10	100	$\frac{\Delta Q}{Q} < \frac{\Delta P}{P}$
15	120	
5↓	80	

P.	Q.S.	$P.e_s = \frac{\Delta Q}{Q} \div \frac{\Delta P}{P}$
10	2	$\frac{\Delta Q}{Q} = 0$
20	2	
30	2	



GEOMETRIC METHOD

PERCENTAGE METHOD

According to this method $P.e_s$ is measured as a ratio of %age change in quantity supplied to %age change in price of a commodity.

Price Elasticity of Supply = $\frac{\% \text{age change in Quantity Supplied}}{\% \text{age Change in Price}} \times 100$

%age change in Quantity = $\frac{\text{New Quantity (Q1)} - \text{Old Quantity (Q)}}{\text{Old Quantity (Q)}} \times 100$

%age change in Price = $\frac{\text{New Price (P1)} - \text{Old Price (P)}}{\text{Old Price (P)}} \times 100$

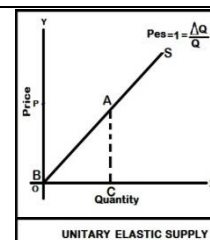
%age change in Quantity = $\frac{\Delta Q}{Q} \times 100$

%age change in Price = $\frac{\Delta P}{P} \times 100$ OR $P.e_s = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$

Unitary Elastic

$P.e_s = 1$, when supply curve intersects the X axis at origin.

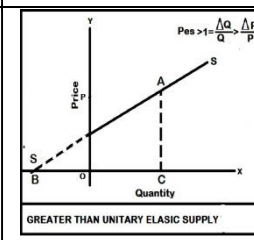
$P.e_s = \frac{BC}{OC}$ ($BC=OC$)
So, $P.e_s = 1$



High Elastic

$P.e_s > 1$, when supply curve intersects the X axis in its positive range.

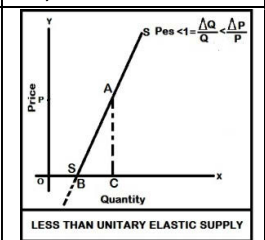
$P.e_s = \frac{BC}{OC}$ ($BC > OC$)
So, $P.e_s > 1$



Less Elastic

$P.e_s < 1$, when supply curve intersects the X axis in its negative range.

$P.e_s = \frac{BC}{OC}$ ($BC < OC$)
So, $P.e_s < 1$



In this method, horizontal segment on the supply axis is divided by the quantity supplied. Using this formula, three cases can be studied. Price Elasticity of Supply ($P.e_s$) = $\frac{\text{Horizontal Segment on the Supply (x) axis}}{\text{Quantity Supplied}}$

FORMS OF MARKET - I

PERFECT COMPETITION

It refers to the market situation in which there are large no of buyers and sellers of homogenous product. Price is determined by the industry and only one price prevails in the market. Example – Agricultural Product Market

1. VERY LARGE NO OF BUYERS AND SELLERS - (I) As there are large number of sellers' individual seller cannot influence market supply or price. Similarly one buyer cannot affect market demand or price. (II) Firms become price takers as they have to accept the equilibrium price that market demand & supply decide. So market or industry is price maker. (III) Due to large number of buyers firm can sell any amount of good at equilibrium price. Hence they have perfectly elastic, horizontal Average Revenue (AR) curve.

2. HOMOGENEOUS PRODUCT - Perfect competition market has homogenous goods which are same in shape, size, colour, price etc. (I) So it is easy for new firms to enter into and exit from the market. (II) There is no selling cost as there is no need for advertising the good. (III) So one firm cannot effect price market decides the price.

3. FREE ENTRY AND EXIT - If in Short Run there is abnormal profit firms will enter the market & if there are abnormal losses firms will exit the market. Hence in the Long run firms will earn Normal Profits.

4. PERFECT KNOWLEDGE - Buyers as well as sellers have complete knowledge of the product.

5. PERFECT MOBILITY OF FACTORS OF PRODUCTION - There is no geographical restriction on their movement. The factors are free to move to the industry in which they get the best price.

6. ABSENCE OF SELLING COST - No advertisement or selling cost is involved because of homogeneous product.

7. ABSENCE OF TRANSPORTATION COST - No transportation cost is involved in market because sellers and buyers have the perfect knowledge about the market.

PURE COMPETITION- Pure competition is the one which has following features – **1.** Large no of buyers and sellers; **2.** Homogeneous Product; **3.** Free from restriction.

MONOPOLISTIC COMPETITION

It refers to a market situation in which there are large no of firms which sell differentiated products. Market of product like textiles, soap, toothpaste, TV etc. examples of Monopolistic Competition Market.

1. LARGE NO OF BUYERS AND SELLERS - Large no of firms are selling closely related, but not the homogeneous product. Each firm has a limited control over the supply in market. Large no of firm's leads to competition in the market. There are large numbers of buyers who have choices to buy from a variety of goods.

2. DIFFERENTIATED GOODS - Differentiated goods are different in shape, size, colour, packaging etc. there are large number of firms selling goods which are close substitutes. The product of one firm is different from that of other firm only in colour, size, shape, packaging, branding, advertising etc; this is known as Product differentiation.

Because of product differentiation, each firm can decide its price but it has to keep price of competitors in mind. So each firm is price maker but it has a partial control over price of its product.

3. FREE ENTRY AND EXIT - in Short Run there is abnormal profit firms will enter the market & if there are abnormal losses firms will exit the market. Hence in the Long run firms will earn Normal Profits. It must be noted that entry under this is not as easy and free as under perfect competition. New firms can enter to the market by adding new feature in their product.

4. PRICE POLICY - A monopolistic is neither price taker nor a price maker. It is able to exercise partial control over price by bringing differentiation in the product, a firm is in a position to influence price.

4. LACK OF PERFECT KNOWLEDGE - Buyers as well as sellers do not have complete knowledge of the product. Buyer's preferences are guided by advertisement and sellers' decision depends on market condition.

5. NON-PRICE COMPETITION - Firms compete with each other on the basis of offering free gifts, extra product etc. different features in good and not on the basis of prices.

6. SELLING COST - It refers to the expenses incurred on marketing, sales promotion and advertisement of the product. It is high.

MONOPOLY

It is a market situation in which there is a single seller producer of a commodity with no close substitutes. The whole market is under his control and firm and industry is same. Example – railway.

1. SINGLE SELELRS AND LARGE NO OF BUYERS - The single seller is performs all the functions of industry. But large no of buyers of the product. There is no difference between firms and industry in this market; this gives an arbitrary power to the monopolist to make all important decision. Absence of other sellers also implies that the market lacks competition.

2. UNIQUE PRODUCT WITHOUT CLOSE SUBSTITUTE PRODUCT - Absence of close substitute gives significant power to the monopolist to exercise substantial control over market price and supply. This is the reason that demand is inelastic.

3. RESTRICTION ON THE ENTRY OF NEW FIRMS - Due to restricted entry, a monopolist enjoys super normal profit in the long run.

4. FULL CONTROLL OVER PRICE - Monopolist is a price maker. He decides the price by himself. But it doesn't mean that he has unlimited power because he only controls the price and not to the demand. He has to reduce the price to attract more buyers.

5. PRICE DISCRIMINATION - In monopoly market firms sell same good at different prices in different markets, to different groups and at different places. This is called Price discrimination. There are three types -

PRICE DISCRIMINATION

PERSON			PLACE		USE		
RAILWAY - CHARGE DIFFERENT FARE			ELECTRICITY		ELECTRICITY - DIFFERENT PRICE FOR		
S. CITIZEN	ADULT	CHILD	RURAL	URBAN	HOUSEHOLD	INDUSTRIAL	AGRICULTURAL

OLIGOPOLY MARKET

It is that form of market where there are few sellers and the price output policy of one seller does affect the price and output policy of the other seller. Product may be homogeneous or close substitute.

1. FEW FIRMS AND LARGE NO OF BUYERS - There are few sellers of the commodity and each seller a substantial portion of the output of the industry. The number of firm is so small that each seller knows that he can influence the price by his own action and that he can provoke rival firms to react.

2. RESTRICTION ON THE ENTRY - There is few firms and new firms cannot easily enter in industry because of many reasons like high capital requirement, patent etc. So that few existing firm earn abnormal profit.

3. INTER-DEPENDANCE BETWEEN FIRMS - In this market the price and the output decision of a particular firm are dependent on the price and output decision of other firms. It implies that no firm can fix its output and price without considering the probable rival reactions. Normally group behavior is observed in the form of collective decision and mutual cooperation by the firms.

4. NON-PRICE COMPETITION - The firms are afraid of competition through lowering the price because it may start price war. Therefore they compete through the non price factors like advertising, after sales service etc. This feature has an important implication that an oligopolistic firm fixes its price and output decision after taking in to consideration the probable rival reactions.

5. SELLING COST - It refers to the expenses incurred on marketing, sales promotion and advertisement of the product. It is very huge in this market.

6. PRICE RIGIDITY - Firms are unwilling to change prices. Price remains fixed irrespective of changes in demand and supply conditions. There is price rigidity due to fear of retaliatory action by rival firms.

FORMS OF MARKET - 2

PERFECT COMPETITION	MONOPOLISTIC COMPETITION	PERFECT COMPETITION	MONOPOLY
1. Large number of buyers and sellers.	1. There are large number of buyers and large number of small sellers.	1. Large number of buyers and sellers.	1. There is only one seller.
2. Firm is price taker and industry is price maker.	2. Firm is the price maker	2. There is free entry into and exit from the market.	2. There is restricted entry in to and exit from the market.
3. Average Revenue (AR) curve is perfectly elastic & horizontal.	3. Average Revenue (AR) curve is downward sloping & elastic.	3. Firm is price taker and industry is price maker.	3. Firm is the price maker
4. There is no Selling cost	4. Selling costs are high.	4. Average Revenue (AR) curve perfectly elastic & horizontal.	4. Average Revenue (AR) curve is downward sloping & inelastic.
5. Products are Homogeneous	5. Differentiated products, close substitute is available.	5. Products are Homogeneous	5. No close substitute is available.
6. Buyers and Sellers have perfect knowledge about market.	6. Buyers and Sellers do not have perfect knowledge about market.	6. Buyers and Sellers have perfect knowledge about market.	6. Buyers and Sellers do not have perfect knowledge about market.
		7. No selling cost	7. Only informative cost

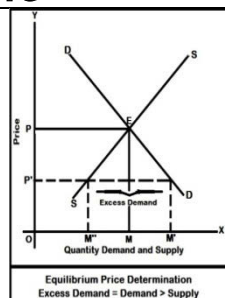
MONOPOLY	MONOPOLISTIC COMPETITION	EMERGENCE OF MONOPOLY	Perfect or Pure Oligopoly
1. There is only one seller.	1. There are large number of buyers and large number of small sellers.	Patent Right - Patent rights are the authority given by the government to a particular firm to produce a particular product for a specific time period.	- If firms are producing homogeneous product – Steel, Cement.
2. There is restricted entry in to and exit from the market.	2. There is free entry into and exit from the market.	Cartel - Cartel refers to a collective decision taken by a group of firms to avoid outside competition and securing monopoly right.	Imperfect or Differentiated Oligopoly - If firms are producing differentiated product – Automobile.
3. Firm is the price maker	3. Firm is the price maker	Government licensing - Government provides the license to a particular firm to produce a particular commodity exclusively.	Collusive or Cooperative Oligopoly – When firms are agrees to avoid competition and cooperate with each other in determining price and output.
4. Average Revenue (AR) curve is downward sloping & inelastic.	4. Average Revenue (AR) curve is downward sloping & elastic.	Control on Resources – Monopoly sometimes occurs due to substantial control over certain resources required in the production.	Non-collusive or non-cooperative Oligopoly – When each firm follows its price and output policy independent of rival firms and firms are compete with each other and there is cut throat competition. Each firm tries to increase its market share.
5. No close substitute is available.	5. Differentiated products, close substitute is available.		
6. Buyers and Sellers do not have perfect knowledge about market.	6. Buyers and Sellers do not have perfect knowledge about market.		
7. Only informative cost	7. Selling costs are high.		

BASIS	PERFECT COMPETITION	MONOPOLISTIC COMPETITION	MONOPOLY	OLIGOPOLY
No. of Buyers and Sellers	1. Large number of buyers and sellers.	1. There are large number of buyers and large number of small sellers.	1. There is only one seller and large no. of Buyers.	1. Few sellers and large no of Buyers.
Control Over Price	2. Firm is price taker and industry is price maker.	2. Firm is the price maker	2. Firm is the price maker	2. Firm is the price maker
Selling Cost	3. There is no Selling cost.	3. Selling costs are high.	3. Only informative cost	3. Selling costs are huge.
Product	4. Products are Homogeneous.	4. Differentiated products, close substitute is available.	4. No close substitute is available.	4. Homogeneous (Perfect Oligopoly) and Differentiated (Imperfect Oligopoly) products.
Knowledge about Market	5. Perfect knowledge about market.	5. Imperfect knowledge about market.	5. Imperfect knowledge about market.	5. Imperfect knowledge about market.
Entry and Exit of Firms	6. There is free entry into and exit from the market.	6. There is free entry into and exit from the market.	6. There is restricted entry in to and exit from the market.	6. Possible with certain conditions.
Profit in Long Run	7. Earns only Normal Profit.	7. Earns only Normal Profit.	7. Earns super normal profit.	7. Earns super normal profit.
Shape of Demand Curve	8. Average Revenue (AR) curve is perfectly elastic & horizontal.	8. Average Revenue (AR) curve is downward sloping & elastic.	8. Average Revenue (AR) curve is downward sloping & inelastic.	8. Cannot be defined due to high degree of interdependence.

Kindly refer chapter "Revenue" for different shapes of AR and MR curve in different markets.

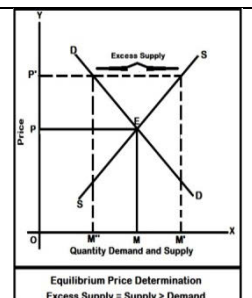
PRICE CEILING

It is the maximum price for a good which a producer can legally charge in the market. It is generally fixed below the equilibrium price. It protects the interest of consumers. It leads to malpractices on part of producers such as hoardings i.e. creating artificial scarcity or black marketing. Govt. has administered price of various essential goods by fixing a ceiling on their prices.



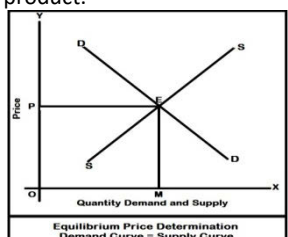
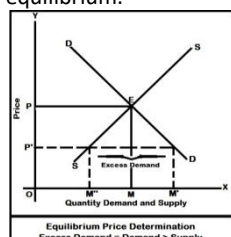
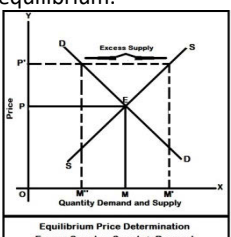
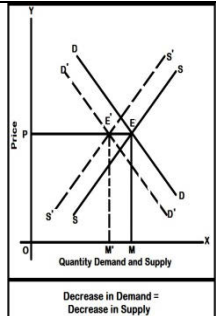
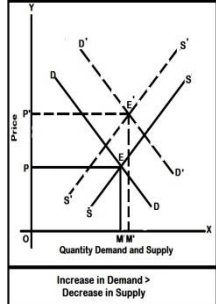
PRICE FLOOR

It's a minimum price guaranteed by the government for a good to the producers at which they can sell their product to the government. It generally fixed above the equilibrium price. It protects the interest of producers (especially farmers). It requires the government to maintain buffer stocks of basic food grains. Govt. also administers price of various agricultural goods by giving a support price to the farmers so that at least they get the cost of production.

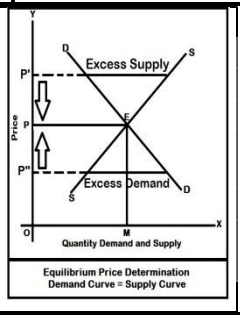


PRICE DETERMINATION

	D C - Shift	S C - Shift	Equilibrium Price	Equilibrium Quantity			
Demand ↑ & Supply ↑ Demand ↑ = Supply ↑ Demand ↑ > Supply ↑ Demand ↑ < Supply ↑	Rightward - 2cm	Rightward - 2cm	No Change	Increase			
	Rightward - 1cm	Rightward - 1cm	Increase	Increase			
	Rightward - 2cm	Rightward - 2cm	Increase	Increase			
Demand ↓ & Supply ↓ Demand ↓ = Supply ↓ Demand ↓ > Supply ↓ Demand ↓ < Supply ↓	Leftward - 2cm	Leftward - 2cm	No Change	Decrease			
	Leftward - 1cm	Leftward - 1cm	Decrease	Decrease			
	Leftward - 2cm	Leftward - 2cm	Decrease	Decrease			
Demand ↑ & Supply ↓ Demand ↑ = Supply ↓ Demand ↑ > Supply ↓ Demand ↑ < Supply ↓	Rightward - 2cm	Leftward - 2cm	Increase	No Change			
	Rightward - 1cm	Leftward - 1cm	Increase	Increase			
	Rightward - 2cm	Leftward - 2cm	Increase	Decrease			
Demand ↓ & Supply ↑ Demand ↓ = Supply ↑ Demand ↓ > Supply ↑ Demand ↓ < Supply ↑	Leftward - 2cm	Rightward - 2cm	Decrease	No Change			
	Leftward - 1cm	Rightward - 1cm	Decrease	Decrease			
	Leftward - 2cm	Rightward - 2cm	Decrease	Increase			
- Demand & Supply ↑ - Demand & Supply ↓ Demand & Supply ↑ Demand & Supply ↓	D C - Shift	S C - Shift					
	No Change	Rightward - 2cm	No Change	Increase			
	No Change	Leftward - 2cm	No Change	Decrease			
	No Change	Rightward - 2cm	Decrease	No Change			
- Supply & Demand ↑ - Supply & Demand ↓ Supply & Demand ↑ Supply & Demand ↓	D C - Shift	S C - Shift					
	Rightward - 2cm	No Change	No Change	Increase			
	Leftward - 2cm	No Change	No Change	Decrease			
	Rightward - 2cm	No Change	Increase	No Change			
↔ Demand & Supply ↑ ↔ Demand & Supply ↓ ↔ Supply & Demand ↑ ↔ Supply & Demand ↓	D C - Shift	S C - Shift					
	No Change	Rightward - 2cm	Decrease	Increase			
	No Change	Leftward - 2cm	Increase	Decrease			
	Rightward - 2cm	No Change	Increase	Increase			

PRICE DETERMINATION	EXCESS DEMAND	EXCESS SUPPLY	HOW TO WRITE EXPLANATION OF CHANGE IN DEMAND AND SUPPLY
<p>In a market price of a commodity is decided by the free forces of demand and supply. These free forces of demand and supply act and react in such a manner that the quantity demanded is exactly equal to quantity supplied. In this course price is known as the equilibrium price. Intersection of market demand and market supply curves decides the price of a product.</p>  <p style="text-align: center;">Equilibrium Price Determination Demand Curve = Supply Curve</p>	<p>When Excess Demand in the market at a given price, the competition among the buyers to purchase the required quantity. Hence they start offering higher prices. With rising market prices, demand contracts and supply expands. This market adjustment continues till the market reaches equilibrium.</p>  <p style="text-align: center;">Equilibrium Price Determination Excess Demand = Demand > Supply</p>	<p>When Excess Supply in the market at a given price, the competition among the sellers to dispose-of their output. Hence, they start offering lower prices. With fall in the market prices, demand expands and supply contracts. This market adjustment continues till the market reaches equilibrium.</p>  <p style="text-align: center;">Equilibrium Price Determination Excess Supply = Supply > Demand</p>	<p>Initial Demand Curve = D D Initial Supply Curve = S S Initial Equilibrium = E Equilibrium Price = OP Equilibrium Quantity = OM</p> <p><u>When Demand and Supply Change simultaneously - (D↓=S↓) (D↑>S↓)</u></p> <p>New Demand Curve = D' D' New Supply Curve = S' S' New Equilibrium = E' New Equilibrium Price = OP' New Equilibrium Quantity = OM'</p> <p>RESULT - (D↓=S↓) Change in Equilibrium Price = No change - OP Change in Equilibrium Quantity = Decreases from OM to OM'</p> <p>RESULT - (D↑>S↓) Change in Equilibrium Price = Increases from OP to OP' Change in Equilibrium Quantity = Increases from OM to OM'</p>  <p style="text-align: center;">Decrease in Demand = Decrease in Supply</p>  <p style="text-align: center;">Increase in Demand > Decrease in Supply</p>

PRICE	Q. DEMAND	Q. SUPPLY	
8	2	8	EXCESS SUPPLY - Competition among the sellers to dispose-of their output. Hence, they start offering lower prices. With fall in the market prices, demand expands and supply contracts. This market adjustment continues till the market reaches equilibrium.
7	3	7	
6	4	6	
5	5	5	EQUILIBRIUM - NO CHANGE REQUIRED - CHAIN EFFECT OF EXCESS DEMAND AND EXCESS SUPPLY
4	6	4	EXCESS DEMAND - Competition among the buyers to purchase the required quantity. Hence they start offering higher prices. With rising market prices, demand contracts and supply expands. This market adjustment continues till the market reaches equilibrium.
3	7	3	
2	8	2	
1	9	1	





Macro Economics

CIRCULAR FLOW OF INCOME & BASIC CONCEPTS OF NATIONAL INCOME

MEANING - It refers to cycle of generation of income in the production process, its distribution among the factors of production and finally, its circulation from household to firms in the form of consumption expenditure on goods and services produced by them.

PHASES –

1- Generation Phase – Production of goods and services with help of factors of production.

2- Distribution Phase – Flow of factor income (Rent, Interest, Wages, and Profit) from firms to household.

3- Disposition Phase – Income received by household, spent on the goods and services produced by firms.

FINAL GOODS

* Those goods which are used either for consumption or for investment.

* They have a direct demand as they satisfy the want directly.

* It is included in both National and Domestic Income.

* Crossed the production boundary.

* They are ready for use by their final users i.e. no value has to be added to the final goods.

INTERMEDIATE GOODS

* Those goods which are used either for resale or for further production.

* They have a derived demand as their demand depends on the demand for final goods.

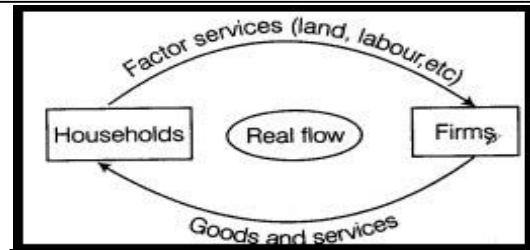
* It's neither included in National nor in Domestic Income.

* Still within production boundary.

* They are not ready for use, i.e. some value has to be added to the intermediate goods.

REAL FLOW

* It refers to the flow of factor services from households to firms and the corresponding flow of goods and services from firms to household.
* It Involves exchange of goods and services.
* There may be difficulties of barter system in exchange of goods and factor services.
* It is also known as Physical flow.



CIRCULAR FLOW OF INCOME TWO SECTOR ECONOMY

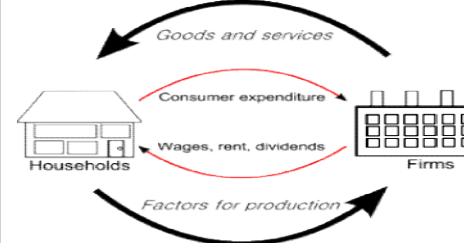
* There are two sector in the economy; Households and firms. It means no Govt. and no foreign sector.

* Household supplies factor services to Firms.

* Firms produce goods and services and sell their entire product to household sector.

* Household receives factor income for their services and spends the entire amount on consumption of goods and services.

* There are no savings in the economy.



If the Financial market (Banks, Insurance companies etc, which transact in loan able funds) available in the economy. The households will deposits their savings in banks and same as firms also will deposits their savings in bank. On the other hands firms also borrow money from the banks to finance their expansion programmes.

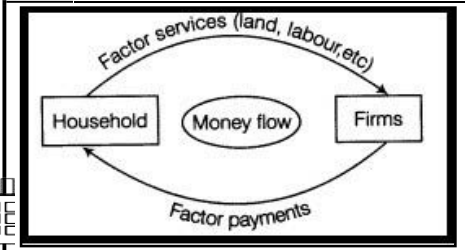
MONEY FLOW

* It is the flow of money between firms and households.

* It involves exchange of money.

* There are no such difficulties in case of money flow.

* It is also known as Nominal flow.



NORMAL RESIDENTS – It refers to an individual or an institution who ordinarily resides in the country and whose centre of economic interest also lies in that country.

It's not included- 1- Foreign tourist and visitors ; 2- Foreign staff of embassies, officials, diplomats and members of the armed forces of a foreign country; 3- International Organizations; 4- Employee of international organization staying less than one year; 5- Crew members of foreign vessels. Commercial travelers and seasonal workers; 6- Boarder workers.

DOMESTIC TERRITORY – Political frontier of a country and its also includes; 1- Ships and aircrafts owned and operated by Normal Residents between two or more countries; 2- Fishing vessels, oil and natural gas rigs and floating platforms operated by the residents of a country in the international area where they have exclusive rights of operation; and 3- Embassies, consulates and military establishments of a country located abroad.

FACTOR INCOME

* It refers to the income received by factors of production for rendering their services in the production process.

* It is included in both National and Domestic Income.

* Earning Concept.

* Received by factors of production (Land, labour, Capital and Entrepreneur)

TRANSFER INCOME

* It refers to the income received without rendering any productive services in return.

* It's neither included in National nor in Domestic Income.

* Receipt concept.

* Generally received by household and government.

STOCK

* It refers to that variable which is measured at a point of time.

It does not have time dimension.

* It is a static concept.

* Examples – Population of India as on 31.3.2014, Money Supply, National Wealth

FLOW

* It refers to that variable which is measured over a period of time.

* It has a time dimension as its magnitude can be measured over a period of time

* It is a dynamic concept.

* Examples – No of birth during 2014, national income, Expenditure in money.

CONSUMPTION GOODS

* These goods satisfy human wants directly.

* These goods have direct demand.

They do not promote production capacity.

* Most of the consumption goods (except durable goods) have limited expected life.

CAPITAL GOODS

* Such goods satisfy human wants indirectly.

* Such goods have derived demand.

* They help in rising production capacity.

* Capital goods generally have an expected life more than one year.

NATIONAL INCOME AND RELATED AGGREGATES – METHODS OF CALCULATION N.I.

VALUE ADDED METHOD	INCOME METHOD	EXPENDITURE METHOD
<p>GVA_{MP} of Primary Sector + GVA_{MP} of Secondary Sector + GVA_{MP} of Tertiary Sector = Gross Domestic Product at Market Price (GDP_{MP}) (-) Depreciation = Net Domestic Product at Market Price (NDP_{MP}) (-) Net Indirect Tax = Net Domestic Product at Factor Price (NDP_{FC}) (+) Net factor Income from Abroad = Net National Product at Factor Price (NNP_{FC})</p> <p>Value Added = Value of Output – Intermediate Consumption Value of Output = Sales Value of Output = Sales + Change in Stock Value of Output = Domestic Sales + Export + Change in Stock (if Given) (Machinery are always final goods when calculated Value Added) STEPS- (1) Identify and classify the production units. (2) Estimate Gross Domestic product at Market Price $\Sigma GVA_{MP} = GDP_{MP}$. (3) Calculate Domestic Income ($NDP_{FC} = NDP_{FC} = GDP_{MP} - \text{Depreciation} - \text{Net Indirect Tax}$. (4) Estimate net factor income from abroad (NFIY) to arrive at National Income. $NNP_{FC} = NDP_{FC} + NFIA$. PRECAUTIONS- (1) Intermediate Goods are not to be included in N.I. (2) Sale and Purchase of second hand goods is not included. (3) Production of services for self consumption (Domestic Services) is not included. (4) Production of Goods for self consumption is not included. (5) Imputed value of owner occupied houses should be included. (6) Change in stock of Goods (inventory) will be included.</p>	<p>Compensation of Employees + Rent and Royalty + Interest + Profit + Mixed Income = Net Domestic Product at Factor Cost NDP_{FC} or Domestic Income (+) Net factor Income from Abroad = Net National Product at Factor Price (NNP_{FC})</p> <p>COE – (1) Wages and Salaries in Cash; (2) Wages and Salaries in Kind; (3) Employer's contribution in Social Security Schemes. Operating Surplus – Factor Payment like Rent, Royalty, Interest and Profit. Mixed Income – Income from Self employment</p> <p>STEPS- (1) Identify and classify the production units. (2) Estimate the factor income paid by each sector. (3) Calculate Domestic Income ($NDP_{FC} = NDP_{FC} = \text{C.o.E.} + \text{Rent and Royalty} + \text{Interest} + \text{Profit} + \text{Mixed Income}$ (4) Estimate net factor income from abroad (NFIY) to arrive at National Income. $NNP_{FC} = NDP_{FC} + NFIA$. PRECAUTIONS- (1) Transfer Incomes are not included in the N.I. (2) Income from sale of second hand goods will not be included. (3) Income from sale of shares, bonds and debentures will not be included. (4) Windfall gains. (5) Imputed value of services provided by owners of production units will be included. (6) Payments out of past savings are not included in the N.I. (7) Indirect Taxes are not included in N.I. at factor cost.</p>	<p>Private Final Consumption Expenditure + Government Final Consumption Expenditure + Gross Domestic Capital Formation + Net Export =Gross Domestic Product at Market Price (GDP_{MP}) (-) Depreciation = Net Domestic Product at Market Price (NDP_{MP}) (-) Net Indirect Tax = Net Domestic Product at Factor Price (NDP_{FC}) (+) Net factor Income from Abroad = Net National Product at Factor Price (NNP_{FC})</p> <p>PFCE – Consumption Expenditure by House Hold GFCE – Consumption Expenditure by Govt. GDCF = Net Domestic Capital Formation + Depreciation GDCE = Net Domestic Fixed Capital Formation + Change in Stock + Depreciation GDCF = Gross Domestic Fixed Capital Formation + Change in Stock Net Export = Export – Imports STEPS- (1) Identify the Economic units incurring Final Expenditure (2) Classification of Final Expenditure (PFCE + GFCE + GDCF + Net Export = GDP_{MP}) (3) Calculate Domestic Income ($NDP_{FC} = NDP_{FC} = GDP_{MP} - \text{Depreciation} - \text{Net Indirect Tax}$. (4) Estimate net factor income from abroad (NFIY) to arrive at National Income. $NNP_{FC} = NDP_{FC} + NFIA$. PRECAUTIONS- (1) Expenditure on Intermediate Goods will not be included in the National Income. (2) Transfer payments are not included. (3) Purchase of second hand goods will not be included. (4) Purchase of financial assets (shares, debentures, Bonds) will not be included. (5) Expenditure on own account production will be included in the National Income.</p>
<p>Private Income – (For Information Only) It refers to the income which accrues to private sector from all the sources within and outside the country. Private Income = NNPFC - Income from Property and Entrepreneurship accruing to Govt. Administrative Departments (GAD) – Savings of Non-Departmental Enterprises (NDE) + National Debt Interest (NDI) + Current Transfers From Government (CTFG) + Net Current Transfer from Rest of The World (NCTFLOW) Private Income = NDPFC + Net factor Income From Abroad (NFYA) – (GAD) – (NDE) + (NDI) + (CTFG) + (NCTFLOW) Private Income = Income from Domestic Product Accruing to private Sector + (NFYA) + (NDI) + (CTFG) + (NCTFLOW) Private Income = Income from Product Accruing to private Sector + (NFYA) + (NDI) + (CTFG) + (NCTFLOW)</p>		<p>Personal Income = Private Income – Corporation Tax – Retained Earnings Personal Disposable Income = Personal Income – Personal Taxes – Miscellaneous Receipts o the Government. NATIONAL / NET NATIONAL DISPOSABLE INCOME = National Income + Net Indirect Tax + Net Current Transfer from Rest of the World. GROSS NATIONAL DISPOSABLE INCOME = National / Net National Disposable Income + Depreciation</p>
<p>Net + Depreciation = Gross – Depreciation = Net</p>	<p>Domestic + NFYA = National – NFYA = Domestic</p>	<p>Factor Cost + NIT = Market Price – NIT = Factor Cost</p>
<p>Depreciation – Loss in the value of assets due to normal wear and tear; passes of time and expected obsolescence in technology. Also known as * Consumption of Fixed Capital * Current Replacement Cost</p>	<p>Net Factor Income From Abroad (NFYA) Factor Income Received from Abroad (FIFA) – Factor income Paid to Abroad (FITA) NFYA = Net Compensation of Employees + Net income from property and entrepreneurship + Net Retained earnings.</p>	<p>Net Indirect Tax (NIT) = Indirect Tax – Subsidies. Indirect Taxes – Taxes impose by the government on production units. Subsidies – Financial assistance given by the government to production units.</p>
<p>Personal Income *Income actually received by household from all sources. *Narrower concept; part of private income. *Personal Income = Private income – Corporation Tax – retained earnings</p>	<p>Private Income *Income which accrues to private sector from all sources. *Broader concept; includes personal income. *Private income = Private income + Corporation Tax + retained earnings</p>	<p>Domestic Income *It is territorial concept as it includes the value of final goods and services produced within the domestic territory of a country. *It considers all producers within the domestic territory of the country. *It does not include NFYA. Place is important.</p>
<p>Personal Income *Sum total of all incomes that are actually received by households from all sources. *Includes both factor and transfer income. *Does not includes income earned by Public Sector.</p>	<p>National Income *The sum total of all the factor incomes, earned by the normal residents of a country. *Includes only factor Incomes. *It includes income earned by Public Sector.</p>	<p>National Income *It is national concept as it includes the value of final goods and services produced in the entire world. *It considers all producers who are normal residents of the country. *It includes NFYA. Person is Important.</p>
<p>NOTE - Content related to Private Income, Personal Income, Personal Disposable Income, Net Disposable Income and Gross Disposable Income is for information only.</p>		
<p>Private Income *Includes factor Income as well as Transfer Income. * Does not includes income of Public sector</p>	<p>National Income Includes Factor income only. * Includes income of public sector.</p>	<p>Private Income *Includes factor Income as well as Transfer Income. * National concepts so includes NFYA.</p>
<p>Domestic income of Private Sector * Includes Factor income only. *Domestic Concept so not included NFYA.</p>	<p>N. D. Income * Factor income as well as transfer Income. * Estimated at Mp so NIT included.</p>	<p>National Income * Includes Factor Incomes Only. Estimated at FC so NIT excluded.</p>
<p>N. D. Income * Includes income of Private and Public Sector both * Includes Net Indirect Taxes.</p>	<p>Per. D. Income * Includes only income of households only. * Excludes Net Indirect Taxes.</p>	

MONEY AND BANKING - I

MONEY

Money is anything which is generally accepted as a medium of exchange, measures of value, store of value and standard of deferred payment. {Money = Currency held by the public (C) + Demand Deposits (DD)}

High Powered Money – It refers to the money produced by RBI and the government of India. It consist of two things : Currency held by the public (C) + Cash reserves with banks (CR) **H=C+CR**

BARTER ECONOMY

Barter System – Barter exchange refers to exchange of goods for goods. An economy, where there is a direct barter of goods and services, is called a 'Barter Economy' or 'C-C Economy'.

Draw Backs of Barter System –

1. Problem of Double Co incidence of Wants – A can exchange goods with B only when A has what B wants and B has what A wants.
2. Lack of Common Measure of Value
3. Lack of Standard of Deferred Payment
4. Difficulty in Storing Wealth
5. Lack of Divisibility.

FUNCTIONS OF MONEY (FOR INFORMATION ONLY)

FUNCTIONS OF MONEY

(money has overcome the drawbacks of barter system)

1- Medium of Exchange – it means that money acts as a medium for the sale and purchase of goods and services. A buyer can buy goods through money and a seller can sell goods for money. In the absence of money, goods were exchanged for goods. This required double coincidence of wants. It has removed the major difficulty of the double coincidence of wants.

2- Measure of Value - Money serves as a measure of value in terms of unit of account. Unit of account means that the value of each good or service is measured in the monetary unit. Measurement of value was very difficult in the barter system one good was valued in terms of the other. Introduction of money has removed this difficulty. It acts as a yardstick of standard measure of value to which all other things can be compared." Money measures the value of everything or the prices of all goods and services can be expressed in terms of money. This function of money also enables the trading firms to ascertain their costs, revenues, profits and losses.

3- Standard of Deferred Payments – Deferred Payments referred to those payments which are to be made in near future. Money act as a standard of deferred payments due to the following reasons –

* Value of money remains more or less constant compared to other commodities.

* Money has the merit of general acceptability.

* Money is more durable compared to other commodities.

4- Store of Value – Money can be stores and does not lose value. Money acts as a store of value due to the following reasons.

* It is easy and economical to store.

* Value of money remains relatively constant.

Money has the merit of general acceptability.

MONEY

MONEY SUPPLY: refers to total volume of money held by public at a particular point of time in an economy.

M1=currency held by public + Demand deposits + other deposits with Reserve Bank of India.

M2=M1+saving deposits with post office saving bank

M3=M1+net time deposit with the bank

M4=M3 + total deposits with post office saving bank excluding national saving certificate.

Evolution of money – Agricultural crops ---Metallic Coins --- Silver and Gold Coins --- Paper Money ---- Plastic Money.

Fiat Money – It is the money backed by order (fiat) of the government.

Fiduciary Money – It is the money backed by mutual trust between the payer and the payee.

Full bodied money – Money in terms of coin whose commodity (intrinsic) value is equal to its money value is called full bodied money.

Credit Money – It refers to money where money value is more than the commodity (Intrinsic) value.

Legal Tender Money – Has a legal sanction by the government.

Liquidity – The ease with which any asset can be converted in to cash without loss of value or time.

CREDIT CREATION BY COMMERCIAL BANKS

MONEY CREATION OR CREDIT CREATION - Money creation (or deposit creation or credit creation) by the commercial banks is determined by (1) The amount of the **initial fresh deposit** and (2) The **Legal Reserve Ratio (LRR)** – It is the minimum ratio of deposit legally required to be kept as cash by the banks. LRR includes **Cash Reserve Ratio** – It is the minimum proportion of cash reserves which is kept by commercial banks with the central bank against its total deposits; and **Statutory Liquidity Ratio** – It is that proportion of the total deposits which a commercial bank has to keep with itself in the form of liquid assets (i.e. cash, gold and unencumbered approved securities). It is assumed that all the money that goes out of banks is redeposit into the banks.

PROCESS - Let the LRR be 20% and there is a fresh deposit of Rs.10000. As required the banks keep 20% i.e. Rs 2000 as cash. Suppose the banks lend the remaining Rs8000 those who borrow use this case money for making payments as assumed those who receive payments put the money back into the banks in this way banks receive fresh deposits of Rs 8000. The banks again keeps 20% i.e. Rs1600 as cash and lend Rs.6400 which is also 80% of the last deposit the money again comes back to the banks' lending to a fresh deposit of Rs 6400. The money goes on multiplying in this way and ultimately total money creation is Rs =50000. Credit creation by banks is done by the formula.

As seen in the table, banks are able to create total deposits of Rs. 50000 with the initial deposits of just Rs. 10000. It means, total deposits become 'five times' of the initial deposit. Five times means Value of 'Money Multiplier'

Money Multiplier or Deposit Multiplier – It measures the amount of money that the banks are able to create in the form of deposits with every unit if money it keeps as reserves.

Money Creation = Initial Deposit x 1/LRR, Money Multiplier = 1/LRR

Money Creation = Initial Deposit x Money Multiplier

Money Multiplier = 1/ (20/100),

1/0.20 = 5

Money Creation = Initial Deposit x Money Multiplier

Money Creation = 10000 x 5 = 50000

Initials Deposits	Deposits	Loans	LRR=20%
Round - 1	10000	8000	2000
Round - 2	8000	6400	1600
Round -3	6400	5120	1280
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Total	50000	40000	10000

MONEY AND BANKING - 2

FUNCTIONS OF CENTRAL BANK

1. Currency Authority or Bank of Note Issue - Central bank is a sole authority to issue currency in the country. The main advantages of sole authority of note issue. (a) Uniformity in note circulation, (b) Better supervision and control, (c) It is easy to control credit, (d) Ensure public faith, (e) Stabilization in internal and external value of currency.

2. Banker's Bank-

RBI acts as Bankers bank in 3 capacities-

Banker's Bank and Supervisor - There are no of commercial bank in country. There should be some agency top regulate and supervise their proper functioning. Being the apex bank, The RBI regulates and controls the commercial banks. The regulation of banks may be related to their licensing, branch expansion, liquidity of assets, management. Merging, winding up etc. The control is exercised by periodic inspections of banks and the returns filed by them.

Custodian of Cash Reserve - Commercial Banks must keep a certain proportion of cash reserves with the central banks from their total Deposit (known as Cash Reserve Ratio or CRR).

Lender of Last Resort - The central bank also acts as lender of last resort for the other banks of the country. It means that if a commercial bank fails to get financial accommodation from anywhere, it approaches the central bank as a last resort. Central bank advances loan to such a bank against approved securities. As a lender of the last resort, central bank exercises control over the entire banking system of the country.

3. Banker to the Government - The central bank act as a banker, an agent and a financial advisor to the central government and all the state governments except J&K).

Banker to the Government - As a Banker - to the govt., it acts like commercial bank to the public. Accepts receipts & makes payment for the govt. It provides short term credit to the govt. It provides foreign exchange resources to the govt. to repay external debt. It manages public debt. It advises the govt. on banking & financial matters.

As an Agent - The central bank also has the responsibility of managing the public debt and collect taxes.

As a financial Advisor - The central bank advises the government from time to time on economic, financial and monetary matters.

4. Clearing House - Every bank keeps cash reserves with the central bank. The claims of banks against one another can be easily and conveniently settled by simple transfers from in to their account. Supposing, Bank A receives a cheque of Rs 10,000 drawn on Bank B and Bank B receives a cheque of Rs. 15000 drawn on Bank A. The most convenient method of settling or clearing their mutual claims is that Bank A should issue a cheque amounting to Rs 5000 in favour of Bank B, drawn on central Bank. As a result of this transference, a sum of Rs 5000 will be debited to the account of Bank A and credited to the account of B. There is no need of cash transactions between the banks concerned. It facilitates cash transaction across the entire banking system, it also reduces requirement of cash reserves of the commercial banks.

5. Custodian of Foreign Exchange Reserves - Another important function of Central Bank is the custodian of foreign exchange reserves. Central Bank acts as custodian of country's stock of gold and foreign exchange reserves. It helps in stabilizing the external value of money and maintaining favorable balance of payments in the economy.

CREDIT CONTROL METHODS

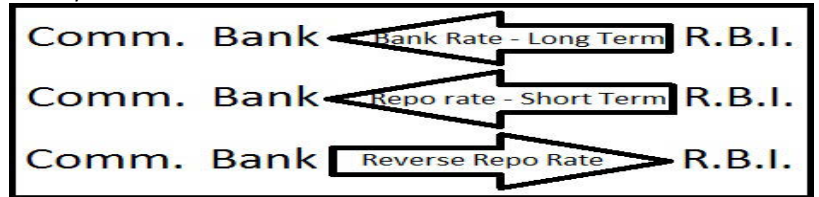
Controller of Money Supply and Credit - Central bank or RBI plays an important role during the times of economic fluctuations. It influences the money supply Through Quantitative instruments (like - Bank Rate, Open Market Operations, legal Reserve ratios, Cash reserve Ratios, Statutory Liquidity ratios) and Qualitative instruments (like - Moral Suasion, Credit Rationing, Direct Action, Margin Requirements). State briefly the various instruments of Monetary policy.

QUANTITATIVE INSTRUMENTS

1. Bank Rate Policy - It refers to the rate at which the central bank lends money to commercial banks as a lender of the last resort. Central Bank increases the bank rate during inflation (excess demand) and reduces the same in times of deflation (deficient demand).

2. Repo Rate Policy - It is the rate at which the central bank of the country (RBI) lends money to the commercial banks to meet their short term needs.

3. Reverse Repo Rate - It is the rate at which RBI borrows money from the commercial banks. This is used (Increased) when excess money supplies exist in an economy.



4. Open Market Operations - It refers to the buying and selling of securities by the Central Bank from/ to the public and commercial banks. It sells government securities during inflation/excess demand and buys the securities during deflation/deficient demand.

5. Legal Reserve Ratio - R.B.I. can influence the credit creation power of commercial banks by making changes in CRR and SLR.

6. Cash Reserve Ratio (CRR) - It refers to the minimum percentage of net demand and time liabilities to be kept by commercial banks with central bank. Reserve Bank increases CRR during inflation and decreases the same during deflation.

7. Statutory Liquidity Ratio (SLR) - It refers to minimum percentage of net demand and time liabilities which commercial banks required to maintain with themselves in the form of specified liquid assets including cash, gold and govt. securities. SLR is increased during inflation or excess demand and decreased during deflation or deficient demand.

MONETARY POLICY (ADOPTED BY RBI)

QUANTITATIVE MEASUREMENTS		
Increase	BANK RATE	Decrease
Increase	REPO RATE	Decrease
Increase	REVERSE RAPO RATE	Decrease
Increase	CASH RESERVE RATIO	Decrease
Increase	S. L. R.	Decrease
Sell of Securities	OPEN MARKET OPERATION	Purchase of Securities

QUALITATIVE INSTRUMENTS:

1. Margin Requirements - It is the difference between the amount of loan and market value of the security offered by the borrower against the loan. Margin requirements are increased during inflation and decreased during deflation.

2. Moral Suasion - It is a combination of persuasion and pressure that Central Bank applies on other banks in order to get them act in a manner in line with its policy.

3. Selective Credit Controls - Central Bank gives direction to other banks to give or not to give credit for certain purposes to particular sectors.

MONETARY POLICY (ADOPTED BY RBI)

QUALITATIVE MEASUREMENTS		
Increase	MARGIN REQUIRMENTS	Decrease
Follow by Commercial banks	MORAL SUASSION	Follow by Commercial banks
Selected Credits	CREDIT RATIONING	Encourage Credits
Stop functioning as banker's bank	DIRECT ACTION	Stop functioning as banker's bank

AGGREGATE DEMAND AND RELATED CONCEPT - INCOME DETERMINATION

AGGREGATE DEMAND

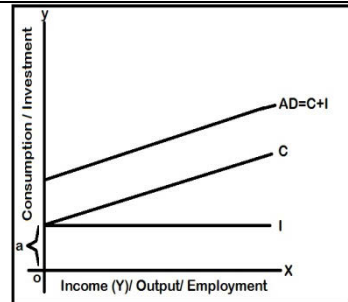
Aggregate Demand (AD) refers to the total value of final goods and services which all the sectors of an economy are planning to buy at a given level of income during a period of one accounting year.

$$AD = C + I$$

COMPONENTS –

Private (Household) Consumption Expenditure (C) = Total plan expenditure incurred by households on purchase of goods and services. It's depending on disposable income. Higher the D.I. higher the C and vice-versa.

Investment Expenditure (I) = Total expenditure incurred by all private firms on capital goods. Addition to the stock of physical capital assets, such as machinery, equipments, buildings etc and change in inventory.



Important Points about AD –

Positive consumption is also, when income level is zero, that is called autonomous consumption; Consumption curve is upward sloping which shows that as income increases consumption also increases; Slope of autonomous investment curve is parallel to X axis which shows that investment is free from income level; AD started from above the origin; AD is also upward sloping parallel to C.

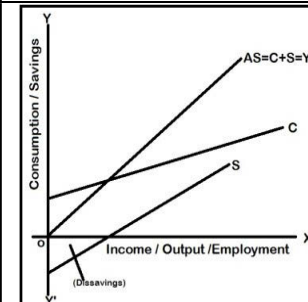
AGGREGATE SUPPLY

Aggregate Supply (AS) refers to money value of goods and services that all the producers are willing to supply in an economy in a given period.

$$AS = C + S = Y \text{ (National Income)}$$

COMPONENTS –

When AS is expressed in physical terms, it refers to total output of goods and services in an economy. Value of total product distributed among factors of production in terms of wages, interest, rent and profit. The sum of this income is treated as domestic and national income. So, we can say that Aggregate Supply (AS) and national income (Y) is one and the same thing.



AS is 45° line starts from the origin. The vertical and horizontal axis has the same scale. In other words it shows that the Income = consumption + saving. The perpendicular drawn from any point on this line, on the X axis and the Y axis will be equal?

Income (Y)	Consumption (C)	Investment (I)	Savings (S)	ΔY	ΔC	ΔS	APC = C/Y	APS = S/Y	MPC = $\Delta C/\Delta Y$	MPS = $\Delta S/\Delta Y$	AD = C + I	AS = C + S
0	40	40	-40	--	--	--	∞	∞	--	--	80	0
100	120	40	-20	100	80	20	1.20	-0.20	0.80	0.20	160	100
200	200	40	0	100	80	20	1.00	0.00	0.80	0.20	240	200
300	280	40	20	100	80	20	0.93	0.06	0.80	0.20	360	300
400	360	40	40	100	80	20	0.90	0.10	0.80	0.20	400	400
500	440	40	60	100	80	20	0.88	0.12	0.80	0.20	480	500
600	520	40	80	100	80	20	0.86	0.14	0.80	0.20	560	600

DETERMINATION OF EQUILIBRIUM LEVEL NATIONAL INCOME EMPLOYMENT AND OUTPUT

An economy is in equilibrium when aggregate Demand (AD) of goods and services are equal to Aggregate Supply (AS) during a period of time.

Equilibrium is achieved when : $AD = AS$(1),

We know that AD is sum total of Consumption (C) and Investment (I) : $AD = C + I$(2),

Also, AS is sum total of Consumption (C) and Saving (S) : $AS = C + S$(3),

Substituting (2) and (3) in (1), we get: $C + I = C + S$ or $I = S$.

So we have two approaches for determining the equilibrium level of income and employment in the economy:

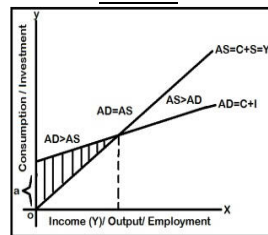
(i) $AD = AS$ Approach; & (ii) $I = S$ Approach

$AD = AS$ Approach – Equilibrium level is determined when AD is equal to AS.

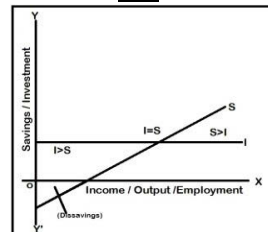
$AD > AS$ = It means that consumers and firms together would be buying more goods than the firms are willing to produce. As a result planned inventory would fall below the desired level. To bring the inventory back to the desired level, firms would resort to increase in employment and output till the economy is back at output level at OY , where AD is become to AS and there be no further tendency to change.

$AS > AD$ = It means that consumers and firms together would be buying less goods than the firms are willing to produce. As a result planned inventory would rise. To clear the unwanted increase in inventory, firms Plan to decrease the employment and output till the economy is back at output level at OY , where AD is become to AS and there be no further tendency to change.

$AD = AS$



$I = S$



$I = S$ Approach – Equilibrium level is determined when $I = S$.

$I > S$ = If planned saving is less than planned investment, i.e. before point E. It means that households are consuming more and saving less than what the firms expected them to. As a result planned inventory would fall below the desired level. To bring the inventory back to the desired level, firms would plan to increase in employment and output till saving and investment equal to each other and there is no further tendency to change.

$S > I$ = If planned investment is less than planned saving, i.e. after point E. It means that households are not consuming as much as the firms expected them to. As a result inventory rises above the desired level. To clear the unwanted increase in inventory, firms would plan to reduce the production till saving and investment equal to each other and there is no further tendency to change.

Full Employment – Full employment refers to a situation in which all those people, who are willing and able to work at the existing wage rate, get work without any undue difficulty.

Involuntary Unemployment – Involuntary unemployment refers to an unemployment in which all those people, who are willing and able to work at the existing wage rate, do not get work.

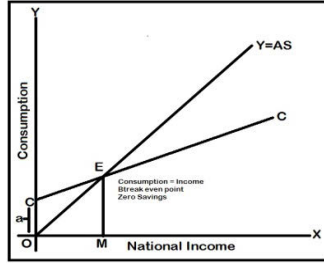
Voluntary Unemployment – Voluntary unemployment refers to a situation when a person is unemployed because he is not willing to work at the existing wage rate.

Frictional Unemployment – it's a situation in which exist during the period wherein workers leave one job and join some other.

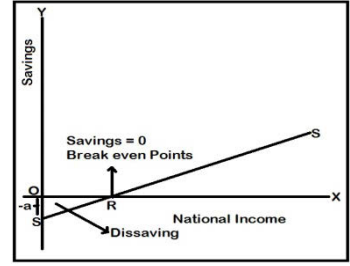
Structural Unemployment – It's a situation, in which people remain unemployed due to a mismatch between unemployed persons and the demand for specific type of workers.

AGGREGATE DEMAND AND RELATED CONCEPTS - CONSUMPTION, SAVING, INVESTMENT

CONSUMPTION FUNCTION (Propensity to Consume) – It represents the willingness of households to purchase goods and services at a given level of income during a given time period. It shows the relationship between consumption levels at different level of national income. **$C = f(Y)$**



SAVING FUNCTION (Propensity to Save) – It refers to the saving of household a given level of income during a given time period. It shows the relationship between different levels of saving at different levels of national income. **$S = f(Y)$**



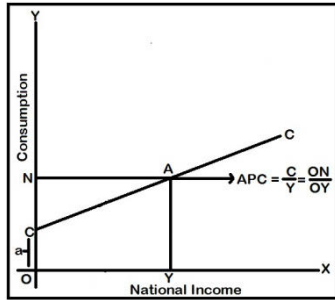
Important Observations – 1- CC starts from above the origin at Y axis, as there is an autonomous consumption at zero level of income; 2- CC has positive slope, which shows positive relationship between C & Y; 3- When income is less than consumption, the gap is covered by dissaving up to 200 level; 4- Where C=Y, S=0. This point is known as breakeven point; 5- When consumption is less than Income, excess of income leads to savings.

Important Observations – 1- SS curve starts from point S on the Y axis, as there is negative savings equal to autonomous consumption at zero level of income; 2- SS has positive slope, which shows positive relationship between S & Y; 3- Where C=Y, S=0. This point is known as breakeven point; 5- When consumption is less than income, after breakeven point, excess of income leads to savings.

AVERAGE PROPENSITY TO CONSUME – (APC)

It refers to the ratio of consumption expenditure to the corresponding level of income. **$APC = C/Y$** .

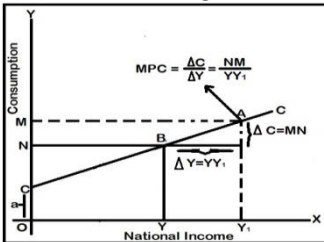
Important Points – 1- APC is more than 1 as long as Income is < consumption; 2- $APC = 1$, when $Y=C$; 3- APC is less than 1 after breakeven point when $Y>C$; 4- APC falls with increase in income; 5- APC can never be zero.



MARGINAL PROPENSITY TO CONSUME – (MPC)

It refers to the ratio of change in consumption expenditure to change in total income. **$MPC = \Delta C/\Delta Y$**

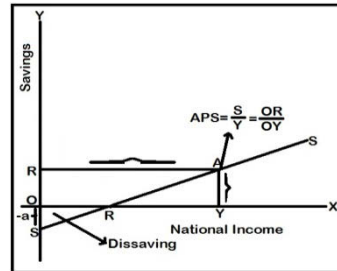
Important Points – 1- Value of MPC varies between 0 (when $\Delta S=0$) and 1 (when $\Delta C=0$); 2- MPC of poor (Developing Countries) is more than that of rich (Developed Countries); 3- MPC falls with successive increase in income; 4- MPC can never be negative.



AVERAGE PROPENSITY TO SAVE – (APS)

It refers to the ratio of saving to the corresponding level of income. **$APS = S/Y$** .

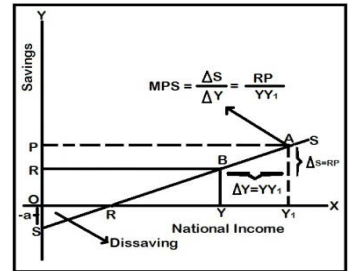
Important Points – 1- APS can never be 1 or more than 1; 2- APS can be 0 (when $C=Y$ – breakeven point); 3- APS can be negative (when $Y<C$) or less than 1 (when $Y>C$); 4- APS rises with increase in income.



MARGINAL PROPENSITY TO SAVE – (MPS)

It refers to the ratio of change in saving to change in total income. **$MPS = \Delta S/\Delta Y$**

Important Points – 1- MPS varies between 1 (when entire additional income is saved) and 0 (when entire additional income is consumed); 2- MPS can never be less than 0 and can never be more than 1.



INVESTMENT FUNCTION

It refers to the expenditure incurred on creation of new capital assets.

Induced Investment – It refers to the investment which depends on the profit expectations and is directly influenced by income level.

Autonomous Investment – It refers to the investment which is not affected by changes in the level of income and is not induced solely by profit motive.

DETERMINANTS OF INVESTMENT

1. Marginal Efficiency of Investment – It refers to the expected rate of returns from an additional investment. Its depend on two actors – **(1) Supply Price** – Cost of producing a new assets of that kind. **(2) Prospective Yields** – Net returns (net of all costs), expected from the capital assets over its lie time.

2. Rate of Interest – It refers to cost of borrowing money for financing the investment.

Comparison of MEI and ROI

If MEI (20%) > ROI (12%) – Investment is profitable. If MEI (12%) < ROI (20%) – Investment is not profitable.

Relationship between APC and APS

The sum of the APC and APS is equal to one. We know that **$Y = C + S$** ; dividing both side by Y, we get **$Y/Y = C/Y + S/Y$**

$1 = APC + APS$ (because income is either used for consumption or for saving)

Relationship between MPC and MPS

The sum of the MPC and MPS is equal to one. We know that **$\Delta Y = \Delta C + \Delta S$** ; dividing both side by ΔY , we get **$\Delta Y/\Delta Y = \Delta C/\Delta Y + \Delta S/\Delta Y$**

$1 = MPC + MPS$ (because total increment in income is either used for consumption or for saving)

COMPARATIVE VIEW OF VALUES OF APC, APS, MPC AND MPS

Value	APC	APS	MPC	MPS
Negative (Less than 0)	No, due to presence of autonomous consumption	Yes, when $C>Y$, before Break Even Point	No, as ΔS can never be more than ΔY .	No, as ΔC can never be more than ΔY .
Zero (0)	No, due to presence of autonomous consumption	Yes, when $C=Y$, at Break Even Point	Yes, when $\Delta S = \Delta Y$	Yes, when $\Delta C = \Delta Y$
One (1)	Yes, when $C=Y$, at Break Even Point	No, as savings can never be = Income	Yes, when $\Delta C = \Delta Y$	Yes, when $\Delta S = \Delta Y$
More than one (>1)	Yes, when $C>Y$, before Break Even Point.	No, as savings can never be > Income	No, as ΔC can never be more than ΔY .	No, as ΔS can never be more than ΔY .

KEYNESIAN PSYCHOLOGICAL LAW OF CONSUMPTION

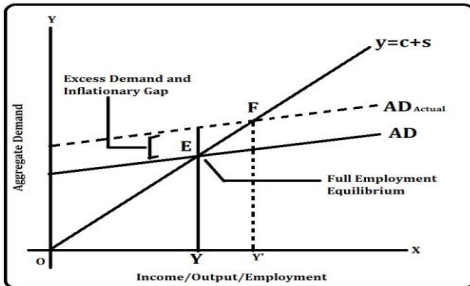
Consumption function is based on this law. This states that:

1. There is a minimum consumption, known as autonomous consumption even at zero level of national income because survival needs consumption; **2-** As the income increases, consumption also increase; **3-** Income rises as a greater proportion as compared to increase in consumption.

EXCESS DEMAND AND DEFICIENT DEMAND

EXCESS DEMAND

It is a situation when actual aggregate demand is more than aggregate demand required at the full employment equilibrium. It is also known as Inflationary Gap.

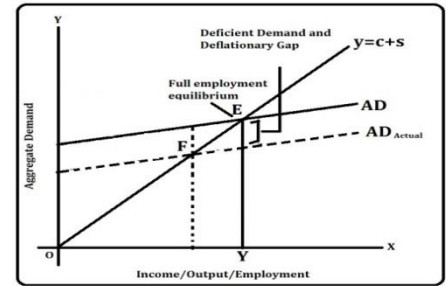


Reasons for Excess and Deficient Demand

EXCESS DEMAND	DEFICIENT DEMAND	
Increase	Propensity to Consume	Decrease
Decrease	Taxes	Increase
Decrease	Imports	Increase
Increase	Exports	Decrease
Increase	Govt. expenditure	Decrease
Increase	Investment	Decrease
Yes	Deficit Financing	No

DEFICIENT DEMAND

It is a situation when actual aggregate demand is less than aggregate demand required at the full employment equilibrium. It is also known as Deflationary Gap.



EXCESS DEMAND	CORRECTION MEASURES			DEFICIENT DEMAND
	FISCAL MEASURE (ADOPTED BY GOVERNMENT)			
It refers to the situation when $AD > AS$ at full employment equilibrium.	Decrease	Expenditure Policy	Increase	It refers to the situation when $AD < AS$ at full employment equilibrium.
It leads to Inflationary gap.	Increase	Taxation Policy	Decrease	
Its indicate Over Full Employment equilibrium.	Increase	Public Borrowings	NO	It leads to Deflationary Gap.
	NO	Deficit Financing	Yes	Its show Under Employment Equilibrium.
	MONETARY POLICY – QUANTITATIVE (ADOPTED BY RBI)			
It occurs due to excess of anticipated expenditure, i.e. due to rise in consumption expenditure, investment expenditure, etc.	Increase	BANK RATE	Decrease	It occurs due to shortage of anticipated expenditure, i.e. due to fall in consumption expenditure, investment expenditure, etc.
	Increase	REPO RATE	Decrease	
	Increase	REVERSE RAPO RATE	Decrease	
	Increase	CASH RESERVE RATIO	Decrease	
	Increase	S. L. R.	Decrease	
It does not affect the Output, Employment and Income level as economy is already operating at full employment level.	Sell of Securities	OPEN MARKET OPERATION	Purchase of Securities	It leads to fall in output and employment due to shortage of aggregate demand.
	MONETARY POLICY – QUALITATIVE (ADOPTED BY RBI)			
	Increase	MARGIN REQUIRMENTS	Decrease	
It leads to inflation, i.e. it results in rise in general price level.	Follow by Commercial banks	MORAL SUASSION	Follow by Commercial banks	Its leads to deflation, i.e. it results in fall in general price level.
EX ANTE SAVING – What households plan to save at different levels of Income in an economy. It is shown by saving function.	Selected Credits	CREDIT RATIONING	Encourage Credits	EX-POST SAVING – It is the actual or realized savings in an economy during a year. EX-POST INVESTMENT – It refers to the actual or realized investment in an economy during a year. Ex-post saving and Ex-post Investment are equal at all levels of income.
	Stop functioning as banker's bank	DIRECT ACTION	Stop functioning as banker's bank	
EX-ANTE INVESTMENT – What firms plan to invest at different levels of income in an economy. It is shown by investment demand function.	IMPACT ON VARIOUS SECTOR			
	EXCESS DEMAND	DEFICIENT DEMAND		
	No Change	Employment	Fall	
	No Change	Output	Fall	
	No Change	National Income	Fall	
	Rise	General Price Level	Fall	
POSSIBILITIES OF EQUILIBRIUM AT EMPLOYMENT LEVEL				
FULL EMPLOYMENT EQUILIBRIUM	UNDER EMPLOYMENT EQUILIBRIUM	OVER FULL EMPLOYMENT EQUILIBRIUM		
It refers to a situation when the $AD = AS$ at full employment level. So full employment means there is no involuntary unemployment in economy.	It refers to a situation when the $AD = AS$ at corresponding to under – employment of resources. It occurs prior to the full employment level.	It refers to a situation when the $AD = AS$ at full employment level. So full employment means there is no involuntary unemployment in economy.		

INCOME DETERMINATION AND MULTIPLIER

Multiplier expresses the relationship between an initial increment in investment and the resulting increase in aggregate income.

The operation of the multiplier ensures that a change in investment causes a change output (or change in national income) by an amplified amount, which is a multiple of the change in investment.

Multiplier refers to the change in income to a change in investment.

Symbolically,

$$\Delta Y = K \cdot \Delta I$$

$$\text{Or, } k = \Delta Y / \Delta I$$

$$\text{Or, } K = 1 / 1 - \text{MPC}$$

$$\text{Or, } K = 1 / \text{MPS}$$

MULTIPLIER AND MPC: There exists a direct relationship between MPC and the value of multiplier. Higher the MPC, more will be value of multiplier and vice-versa.

ALGEBRAIC RELATIONSHIP BETWEEN MULTIPLIER AND MPC

We know that the value of output is equal to aggregate spending. Thus,

$$Y = C + I$$

We also know that any change in income (ΔY) is always equal to $(\Delta C + \Delta I)$. Thus,

$$\Delta Y = \Delta C + \Delta I$$

Dividing both the sides by ΔY , we get,

$$\Delta Y / \Delta Y = \Delta C / \Delta Y + \Delta Y / \Delta Y$$

$$\text{Or } 1 / K = 1 - \text{mpc}$$

$$K = 1 / 1 - \text{mpc} \quad K = 1 / \text{mps}$$

MULTIPLIER AND MPC (ALTERNATE WAY)

At equilibrium price, $Y = C + I$ (1)

We know, $C = a + bY$ (2)

Substituting value of C we get,

$$Y = a + bY + I$$

$$Y - bY = a + I$$

$$Y(1 - b) = a + I$$

$$Y = 1 / (1 - b) * (a + I)$$

b is nothing but the MPC, so we have,

$$Y = 1 / 1 - \text{mpc} * (a + I)$$

To get the effect of a change in investment on income, we differentiate the equation to obtain

$$\Delta Y = 1 / 1 - \text{mpc} * \Delta I$$

$$K = \Delta Y / \Delta I = 1 / 1 - \text{MPC}$$

FUNCTIONING OF INVESTMENT MULTIPLIER: PRESENTATION BY A NUMERICAL EXAMPLE

The working of the multiplier tells as to what will be the final change in income as a result of change in investment. Change in investment causes a change in income. As a result, there is a change in consumption which in turn leads to a multiple change in income.

Symbolically,
 $\Delta I \rightarrow \Delta Y \rightarrow \Delta C \rightarrow \Delta Y$

The working of the multiplier can be explained with the help of the following table which is based on the assumption that $\Delta I = 1000$ and $0.8 (4/5)$

PROCESS OF INCOME GENERATION

This table is based on that initial increase in investment is 1000 and MPC is 0.80.

ROUND	ΔI	ΔY	ΔC
I	1000	1000	$4/5 * 1000 = 800$
II	-	800	$4/5 * 800 = 640$
III	-	640	$4/5 * 640 = 512$
IV	-	512	$4/5 * 512 = 409.6$
-	-	-	-
-	-	-	-
-	-	-	-
TOTAL		5000	4000

From the above table, we learn that,
 $\Delta Y = 1000 + 800 + 640 + 512 + \dots + \infty$

$$= 1000 + 4/5 * 1000 + (4/5)^2 * 1000 + (4/5)^3 * 1000 + \dots + \infty$$

$$= 1000 [1 + (4/5) + (4/5)^2 + (4/5)^3 + \dots + \infty]$$

Sum of an infinite GP series

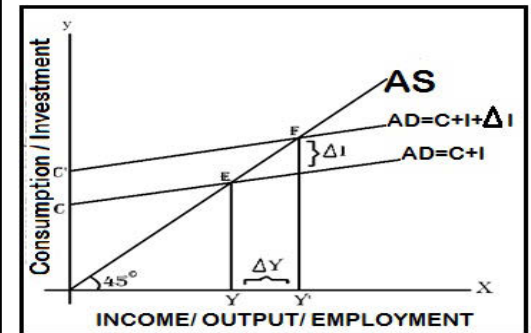
$$= 1000 [1 / 1 - 4/5]$$

$$= 1000 * 5$$

$$= \text{Rs. } 5000 \text{ C}$$

DIAGRAMMATIC PRESENTATION OF MULTIPLIER

The concept of Multiplier can be explained as under -



- * The economy is in equilibrium at point E.
- * It corresponds to OY level of income at equilibrium.
- * With additional investment, ΔI , equilibrium shifted to point F on $AD = C + I + \Delta I$.
- * F corresponds to OY' income level at equilibrium.
- * Equilibrium income increases from OY to OY'.
- * The additional income Y'Y is greater than the additional investment CC' or ΔI .
- * It is due to the multiplier effect.

CHARACTERISTICS OF MULTIPLIER –

- 1.** Multiplier works in both the forward and backward directions.
 - * Forward working of multiplier shows multiple increases in income in response to given increase in investment.
 - * Backward working of multiplier shows multiple decrease income in response to given decrease in investment.
- 2.** There is a positive relationship between MPC and multiplier.
 - * Higher the value of MPC, higher is the value of Multiplier.
 - * Lower the value of MPC, Lower is the value of Multiplier.
- 3.** There is a inverse relationship between MPS and multiplier.
 - * Higher the value of MPS, Lower is the value of Multiplier.
 - * Lower the value of MPS, Higher is the value of Multiplier.
- 4.** Aggregate Demand cause the multiplier effect i.e. increase in components of AD brings multiplier effect (Forward Effect)

COMPONENTS of AD

- * Increase in consumption expenditure
 - * Increase in investment expenditure
 - * Increase in government expenditure
 - * Increase in exports.
- And vice versa for backward effect.

IMPORTANT FORMULAE

$K = \frac{\Delta Y}{\Delta I}$	$K = \frac{1}{1 - \text{MPC}}$	$K = \frac{1}{\text{MPS}}$
MPC + MPS = 1	AD or Y = C + I	AS or Y = C + S
AD = AS at equilibrium	S = I at equilibrium	Y = C then APC = 1 APS = 1
$\Delta Y = \Delta C$ then MPC = 1 and MPS = 1		

GOVERNMENT - BUDGET

OBJECTIVES OF A GOVT. BUDGET

Meaning of Government Budget:- A government budget is an annual statement of the estimated receipts and estimated expenditure during a fiscal year.

Objective of the Government Budget

The objective that are pursued by the government through the budget are-

1. To Achieve Economic Growth.
2. To Reduce Inequalities in Income and Wealth.
3. To Achieve Economic Stability.
4. To Management of Public Enterprises.
5. To Reallocation of Resources.
6. To Reduce regional Disparities.

Balanced Budget :- A Government budget is said to be a balanced in which government receipts are shown equal to government expenditure

Surplus Budget:- When government receipts are more than government expenditure in the budget, the budget is called a surplus budget.

Deficit Budget:- When government expenditure exceeds government receipts in the budget is said to be a deficit budget.

BUDGET COMPONENT

BUDGET RECEIPT				BUDGET EXPENDITURE			
CAPITAL RECEIPT		REVENUE RECEIPT		CAPITAL EXPENDITURE		REVENUE EXPENDITURE	
Either Creates Liability	Or Reduce Assets	Neither Create Liability	Nor Reduce Assets	Either Creates Assets	Or Reduce Liability	Neither Create Assets	Nor Reduce Liability
* It's always creating a liability.		* Revenue Receipts do not create any liability.		* It results in creation of assets.		* It does not result in creation of assets.	
* Capital Receipts causes for reduction in the assets of the government.		* It's does not reduce assets of the government.		* It result in reduce in liability.		* It does not reduce any liability.	
* Eg. Borrowings, Disinvestment, Recovery of loans etc.		* Eg. Dividend, Tax and non tax revenue.		* It for long period and non-recurring in nature.		* It is for day to day activity and recurring in nature.	
1. Borrowing		1. Tax and Non Tax Revenue		1. Construction Activities		1. Payment of Interest	
2. Disinvestment		2. Interest Received on loans		2. Lending loans		2. Expenditure on General Services	
3. Recovery of Loans		3. Gift and Grants		3. Defence Capital Equipments		3. Subsidies	
4. Small Savings- NSC, KVP		4. Profit of PSUs		4. Repayment of Loan		4. Grants Given to State Govt.	

Plan Expenditure		Non- Plan Expenditure		Developmental Expenditure	Non-Developmental Expenditure
* Plan expenditure refers to the estimated expenditure which is provided in the budget to be incurred during the year on implementing various projects and programs included in the plan.		* This refers to the estimated Expenditure provided in the budget for spending during the year on routine functioning of the government.		* It refers to expenditure on activities which are directly related to economic and social development of the country.	* It refers to expenditure incurred on essential general services of the government.
* Such expenditure is incurred on financing the central plan relating to different sectors of the economy		* There is no provision in the plan for such expenditure.		* It directly contributes to national Product.	* It does not contribute directly to national product.
* Plan expenditure is arises only when the plans for such an expenditure.		* Non plan expenditure is must for every economy and the government can't escape from it.		* Eg. expenditure on education, health etc.	* Eg. Expenditure on defence, subsidy on food etc.
* Eg. Expenditure on agriculture and allied industries, energy, transport, general economic and social services.		* Eg. Payment of interest, Expenditure on defence, subsidies, administrative services etc.			

Direct Tax	Indirect Tax	
* Liability to pay and burden of direct tax falls on same person.	* Liability to pay and burden of direct tax falls on some other person.	<p>@ Revenue Deficit:- Revenue deficit refers to the excess of revenue expenditure of the government over its revenue receipts.</p> <p>Revenue deficit = Total revenue expenditure – Total revenue receipts.</p> <p>Importance:- Since it is largely related with the recurring expenditure. Therefore, high revenue deficit gives a warning to the government either to cut expenditure or to increase revenue receipts. It also implies requirement burden in future.</p> <p>@ Fiscal Deficit:- Fiscal deficit is defined as excess of total expenditure over total receipts excluding borrowings.</p> <p>Fiscal Deficit = Total budget expenditure - Total budget receipts (excluding borrowings)</p> <p>Importance:- Fiscal deficit is a measure of total borrowings required by the government. Greater fiscal deficit implies greater borrowings by the government. This creates a large burden of interest payments in the future that leads to increase in revenue expenditure, causing an increase in revenue deficit. Thus a vicious circle sets in. In the present, a large fiscal deficit may also lead to inflationary pressures.</p> <p>@ Primary Deficit:- Primary deficit is defined as fiscal deficit minus interest payment. It is equal to fiscal deficit reduced by interest payment.</p> <p>Primary deficit = Fiscal deficit – interest payment.</p> <p>Importance:- Primary deficit signifies borrowing requirements of the government. A low or zero primary deficit means that while government's interest requirement on earlier loans have compelled the government to borrow but it is aware of the need to tighten its belt.</p>
* Direct taxes are levied on individuals and companies.	* Indirect taxes are levied on goods and services.	
* Levied on income and property of person.	* Levied on goods and services on their sale, Production, import and export.	
* Direct taxes are generally progressive in nature.	* Indirect taxes are generally proportional in nature.	
* Eg. Income tax, Corporate tax, Wealth Tax, Capital Gains etc.	* Eg. Sales tax, Service Tax, Excise duty, Custom duty etc.	

TAX REVENUE – It includes revenue earned from taxes and duties imposed by the government. It is legal and compulsory payment. It consist of direct taxes like income tax, wealth tax, gift tax and indirect taxes like sales tax, custom duty etc.

NON TAX REVENUE - It includes income of government departments. It is not a legal and compulsory payment. It is a payment made for enjoying the benefit of product / services. It consist of Interest, Profit, fees, fines, penalties, escheat, special assessment, dividend etc.

BALANCE OF PAYMENTS

MEANING - The balance of payment of a country is a systematic record of all economic transactions between the residents of the reporting country and the residents of foreign countries during a given period of time.

BALANCE OF TRADE

Balance of trade takes into account only those transactions arising out of the exports and imports of goods (the visible items). It does not consider the exchange of services.

CAPITAL ACCOUNT

It records are international transactions that involve a resident of the domestic country **changing his assets or liability** with a foreign resident. It is concerned with financial transfers. So it does not have direct effect on income, output and employment of the country.

CURRENT ACCOUNT - The current account records all transactions related to imports and exports of goods and services and unilateral transfers during a given period of time. The main components of this account are -

(1) EXPORT AND IMPORT OF GOODS – (Visible Items) – The balance of export and import of goods is called the balance of visible trade. Payment for import of good is written on the negative side and receipt from export is shown on positive side.

(2) EXPORT AND IMPORT OF SERVICES (Invisible Trade) - The balance of exports and imports of services is called the balance invisible trade. Example - Shipping, Banking, Insurance etc. Payments for these services are written on the negative side and receipt on positive side.

(3) UNILATERAL TRANSFER TO AND FROM ABROAD - Unilateral transfers is receipts which residents of a country make without getting anything in return eg. Gifts, donation, personal remittances etc.

(4) INCOME RECEIPT AND PAYMENT TO AND FROM ABROAD – It includes income in the form of interest, rent and profits.

The net balance of visible trade, invisible trade and of unilateral transfers is the balance on current account. Current Account shows the Net Income.

Various forms of capital account transactions :-

(1) PRIVATE TRANSACTIONS - There are transactions that affect the liabilities and assets of individuals.

(2) OFFICIAL TRANSACTIONS - Transactions affecting assets and liabilities by the govt. and its agencies.

(3) PORTFOLIO INVESTMENT (FII) - It is the acquisition of an asset that does not give the purchaser control over the asset.

(4) DIRECT INVESTMENT (FDI) - It is the act of purchasing an asset and at the same time acquiring control of it.

(5) BANKING INFLOW – Inflow of hot money seeking the highest rate of return as NRI deposits.

(6) OFFICIAL RESERVE TRANSACTION – It includes change in a countries gold reserves, foreign exchange reserves, foreign securities and SDRs with IMF.

The net value of the balance of direct and portfolio investment is called the balanced on Capital Account.

BALANCE ON CURRENT ACCOUNT – The net value of credit and debit balance is the balance on current account.

1. Surplus in current account arises when credit items are more than debit items. It indicates net inflow of foreign exchange.

2. Deficit in current account arises when debit items are more than credit items. It indicates net outflow of foreign exchange.

BALANCE ON CAPITAL ACCOUNT – The net value of credit and debit balance is the balance on capital account.

1. Surplus in capital account arises when credit items are more than debit items. It indicates net inflow of capital.

2. Deficit in capital account arises when debit items are more than credit items. It indicates net outflow of capital.

In addition to current and capital account, there is one more element in BOP, known as '**Errors and Omissions**'. It is the balancing item, which reflects the inability to record all international transactions accurately.

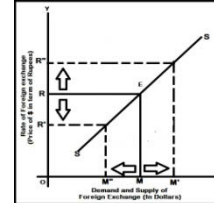
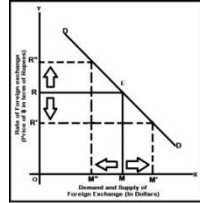
AUTONOMOUS ITEMS	ACCOMODATING ITEMS	BALANCE OF TRADE	BALANCE OF PAYMENTS
Autonomous items refer to international economic transactions that take place due to some economic motive such as profit maximization.	This refers to transactions that occur because of other activity in the BOP, such as government financing.	Balance of trade is a record of only visible items i.e. exports and imports of goods.	Balance of payments is a record of both visible items (goods) and invisible items (services)
These transactions are independent of the state of the country's BOP.	These transactions are responsible for country's BOP.	Balance of trade can be in a deficit, surplus or balanced	Balance of payments must always balance.
These items are often called above the line items in the BOP.	These items are called below the line items.	Unfavorable BoT can be met out with of favorable BoP.	Unfavorable BoP cannot be met out with of favorable BoT.
CURRENT ACCOUNT	CAPITAL ACCOUNT	BOT does not record ant transaction of capital nature.	BOP records all the transactions of capital nature.
* It records all transaction between the resident of a country and the rest of the world which does not change asset and liability * It is a flow concept * It consist of export and import of goods, services and unilateral transfer	* It records all transaction between the resident of a country and the rest of the world which does not change asset and liability * It is a stock concept * It consist of borrowing and lending, change in foreign exchange reserve and FDI	Balance of trade is a narrower concept as it is only a part of the balance of payments account.	Balance of payments is a wider and more useful concept as it is a record of all transactions in foreign exchange including balance of trade.

ECONOMIC TRANSACTIONS	OUTFLOW OF FOREIGN EXCHANGE (DEBIT)		INFLOW OF FOREIGN EXCHANGE (CREDIT)		
	RS.	RS.	RS.	RS.	
It refers to those transactions which involve transfer of the title or ownership of goods, services, money and assets. 1. VISIBLE ITEMS – All types of goods (made of material and can be touched, seen and measured) which exported and imported. 2. INVISIBLE ITEMS – All types of services (cannot be touched, felt, measured or seen) like shipping, banking, insurance etc which are given and received. 3. UNILATERAL TRANSERS – It includes gifts, personal remittances and other one way transactions and do not claim any repayment. 4. CAPITAL TRANSER – It is related to capital receipts (through borrowing or sale of assets) and capital payments (through capital repayment or purchase of assets).	1	Import of goods	2500	Export of goods	4500
	2	Import of services	7500	Export of services	700
	3	Unilateral Transfer to Rest of the world	500	Unilateral Transfer from Rest of the world	800
	4	Capital Payments (Repayments of Loans purchase of Assets etc.)	2500	Capital Receipts – Loans – 2000 FDI – 2800 Disinvestment – 2200	7000
	TOTAL OUTFLOW		13000	TOTAL INFLOW	

FOREIGN EXCHANGE RATE

DEMAND OF FOREIGN EXCHANGE

1. Import of goods and services from other countries;
2. Tourism;
3. Unilateral Transfers sent to abroad;
4. To purchase assets in foreign countries;
5. To speculate on the value of foreign currencies.



SUPPLY SOURCES OF FOREIGN

1. Export of Goods and Services to other countries;
2. Tourism;
3. Foreign investment like FDI and FII;
4. Unilateral Transfers received from abroad;
5. Speculation

FOREIGN EXCHANGE - It refers to all currencies other than the domestic currency of a given country.

FOREIGN EXCHANGE RATE - It is the price of one currency in terms of another. It is the rate at which exports and an import of a nation is valued at a given point of time.

DEPRECIATION - It refers to fall in the price of domestic currency in terms of foreign currency.

APPRECIATION - It refers to rise in the price of domestic currency in terms of foreign currency.

DEVALUATION - It refers to reduction in the price of domestic currency by the government in terms of foreign currency.

REVALUATION - It refers to increase in the value of domestic currency by the government.

DIRTY FLOATING

When a particular country manipulates its managed float system to the detriment of other countries, the behavior is called as dirty float.

FOREIGN EXCHANGE MARKET

The foreign exchange market is the market where the national currencies are traded for one another.

SPOT MARKET - If the operation in the foreign exchange market is of daily nature, it is called current market or spot market.

FORWARD MARKET - The market for foreign exchange for future delivery is known as the forward market. The forward market consists of parties that demand or supply a given currency at some further point in time.

Transfer Function - To transfer the purchasing power between countries.

Credit Functions - To provide credit channels for foreign trade.

Hedging Function - To protect against foreign exchange risks.

IMPACT ON DOMESTIC CURRENCY WHEN

1. INCREASE IN DEMAND FOR FOREIGN EXCHANGE -

Domestic currency depreciated

2. DECREASE IN DEMAND FOR FOREIGN EXCHANGE -

Domestic currency Appreciated

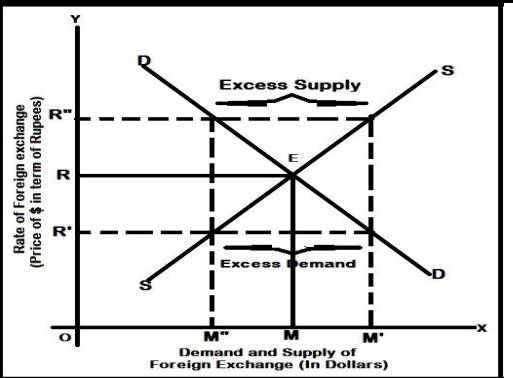
3. INCREASE IN SUPPLY OF FOREIGN EXCHANGE -

Domestic currency Appreciated

4. INCREASE IN DEMAND OF FOREIGN EXCHANGE -

Domestic currency depreciated

DETERMINATION OF EXCHANGE RATE Equilibrium in the foreign exchange market is determined in the same way as the price of a commodity through the forces of supply and demand. The foreign exchange market, like any other normal market, contains a downward sloping demand curve and an upward sloping supply curve. The price on the vertical axis is stated in terms of domestic currency (i.e. how many rupees for one US dollar). The horizontal axis measures the quantity demanded or supplied. The intersection of the supply and demand curve determines the equilibrium foreign exchange rate.



FIXED EXCHANGE RATE - Under the fixed exchange rate system the exchange rate is officially declared and it is fixed. Only a very small deviation from this fixed value is possible. It is not determined by supply of and demand for foreign exchange.

MERIT - 1. Stability in the exchange Rate; 2. Promote International Investment; 3. Promotes International Trade; 4. Prevent Speculative Activity; 5. Coordination of Macroeconomics Policies.

DEMERITS - 1. Huge foreign Exchange Reserves Required; 2. Difficulty in fixing the Exchange rate; 3. Exchange Rates are not Fixed.

FLEXIBLE EXCHANGE RATE - In the flexible exchange rate system exchange rate is determined by the supply and demand for foreign exchange. There is no intervention by the central bank.

MERIT - 1. Maintains Equilibrium Level; 2. No need of Huge Foreign Exchange Reserves; 3. Optimum Utilization of resources.

DEMERITS - 1. Instability in the Exchange Rate; 2. Speculative Activities; 3. Creates Inflationary Situation.

MANAGED FLOATING EXCHANGE RATE - In this system foreign exchange rate is determined by the market demand and supply and central bank can intervene in foreign exchange rate determination whenever it feels desirable. It is also known as dirty floating.

DEPRECIATION	DEVALUATION	FIXED EXCHANGE RATE	FLEXIBLE EXCHANGE RATE
Depreciation refers to fall in the price of domestic currency in terms of foreign currency.	It refers to reduction in the price of domestic currency by the government in terms of foreign currency.	It is officially fixed by the government in terms of gold or any other currency.	It is determined by the forces of demand and supply of foreign exchange.
It takes place due to market demand and market supply of foreign exchange.	It is done deliberately by the government or central bank	Traditional exchange rate system (adopted by all countries from 1946 to 1973)	New exchange rate system (adopted by almost all countries after 1973)
It takes place under Flexible Exchange Rate System	It takes place under Fixed Exchange Rate System.	The exchange rate is generally stable or a very small variation possible	The exchange rate keeps on changing.
It is very common.	It is very uncommon.	In this system only government has the power to change exchange rate.	Market forces changes the exchange rate. (In Managed Floating RBI can intervene under certain limits)

DEPRECIATION	APPRECIATION
Depreciation refers to fall in the price of domestic currency in terms of foreign currency.	Appreciation refers to rise in the price of domestic currency in terms of foreign currency.
IMPACT ON EXPORT AND IMPORT - It makes domestic goods cheaper in foreign country as more of such goods can now be purchased with same amount of foreign currency. So, it leads to increase in export and decrease in Import. (Same result will be in case of Devaluation)	IMPACT ON EXPORT AND IMPORT - It makes foreign goods cheaper in domestic country as more of such goods can now be purchased with same amount of domestic currency. So, it leads to increase in import and decrease in Export. (Same result will be in case of Revaluation)
A change from 1 \$ = 50 Rs. to 1 \$ = 55 Rs. is Depreciation of Indian Currency.	A change from 1 \$ = 50 Rs. to 1 \$ = 45 Rs. is Appreciation of Indian Currency.

Class Test “XII” – Economics

Time – 90 Minutes

Day - 01

M.M. – 40

Note - Q. 1-4 = 1 Marks, Q. 5-6 = 3 Marks, Q. 7-9 = 4 Marks, Q. 10-12 = 6 Marks

1. Why does the problem of choice arise?
2. Define opportunity cost?
3. Define utility.
4. What happens to TU when MU is Zero?
5. What do you mean by Marginal Rate of Transformation? Why is it increasing in case of PPC?
6. Explain the central problem of “What to Produce” with the help of an example.
OR
Explain the central problem of “How to produce” with the help of an example.
OR
Explain the central problem of “whom to produce” with the help of an example.
7. Explain the relationship between Total Utility and Marginal Utility.
8. Explain why a PPC is concave to the origin?
9. Explain difference between Micro and Macro Economics.
10. How does a Consumer reach equilibrium position when he is buying only one commodity? Explain with the help of marginal utility schedule.
OR
How does a Consumer reach equilibrium position when he is buying only two commodities? Explain with the help of marginal utility schedule.
11. A consumer consumes only one good. The MU for that commodity is 5 and price of the commodity is Rs.6, is the consumer in equilibrium. Give reasons. What will a rational consumer do in this situation? Explain.
OR
A consumer consumes only two good X and Y whose prices are Rs. 4 and Rs. 5 per unit respectively. If the consumer chooses a combination of the two goods with marginal utility of X equal to 5 and that of Y equal to 4, is the consumer in equilibrium? Give reasons. What will a rational consumer do in this situation? Explain.
12. What is P.P.C.? Explain its properties. If an economy is facing problem of unemployment, how it will affect the PPC?

TOPICS DISCUSSED -Production Possibility Curve, Marginal Rate of Transformation, Marginal and Total Utility, relation between MU and TU, Law of Diminishing Marginal Utility, Consumer Equilibrium Condition (one Commodity, Two Commodity)

Class Test “XII” – Economics

Time – 90 Minutes

Day - 02

M.M. – 40

Note - Q. 1-4 = 1 Marks, Q. 5-6 = 3 Marks, Q. 7-9 = 4 Marks, Q. 10-12 = 6 Marks

1. What do you mean by monotonic preference?
2. What happens to the budget set if both the prices as well as the income double?
3. What will happen with IC if Marginal Rate of Substitution is increasing?
4. What do you mean indifference map?
5. Give the difference between Complementary goods and Substitute goods.
OR
Give the difference between Normal and inferior commodity.
6. Explain any three factors affecting the demand.
OR
Explain why is an indifference curve convex?
7. Explain the law of demand with the help of demand schedule?
8. Explain any four properties of Indifference Curve.
9. What is difference between increase in demand and expansion of demand?
OR
What is difference between decrease in demand and contraction of demand?
10. Explain the conditions of consumer's equilibrium in the indifference curve approach and explain rational behind these conditions.
OR
A consumer consumes only two good X and Y both priced at Rs. 3 per unit. If the consumer chooses a combination of the two goods with Marginal Rate of Substitution equal to 3, is the consumer in equilibrium? Give reasons. What will a rational consumer do in this situation? Explain.
11. A consumer wants to consume two goods. The Prices of the two goods are Rs. 4 and 5 respectively. The consumer's income is Rs. 20.
 - a- Write down the equation of Budget Line.
 - b- How much of good 1 can the consumer consumes, if she spend her entire income on that good?
 - c- How much of good 2 can the consumer consumes, if she spend her entire income on that good?
 - d- What is the slope of Budget Line?
12. How does a change in price of substitute goods affect the demand of given commodity? Explain with the help of an example.
OR
How does a change in price of complementary goods affect the demand of given commodity? Explain with the help of an example.

TOPICS DISCUSSED -Indifference Curve, Properties of IC, Budget Line, Marginal Rate of Substitution, Consumer Equilibrium Condition (IC Approach), Individual and market demand, Law of demand, Factors affecting demand, Difference between Change in Demand and Change in Quantity Demanded

Class Test “XII” – Economics

Time – 90 Minutes

Day - 03

M.M. – 40

Note - Q. 1-4 = 1 Marks, Q. 5-6 = 3 Marks, Q. 7-9 = 4 Marks, Q. 10-12 = 6 Marks

1. Define price elasticity of demand?
2. When is demand for a commodity called perfectly inelastic?
OR
What is point of Inflexion?
3. What do you mean by Production Function?
4. In which phase of Law of Variable Proportion, a rational firms aims to operate?
5. What is meant by Variable Factors and Fixed Factors? Give to examples of each.
6. What is meant by returns to a factor? State the Law of Diminishing returns to a factor.
7. Explain the relationship between Marginal Production and Total Production with the help of Diagram.
8. How will you find the %age change in Demand and %age change in Price? Give formulae.
9. The following table gives the product schedule of Labour. Find the corresponding average product and MP schedules of labour.

Labour	-	0	1	2	3	4	5
TP	-	0	15	35	50	40	48
10. Explain the Law of Variable Proportion with the help of total and marginal product curves.
OR
Explain the Law of Variable Proportion in terms of TP and MP.
11. Explain any six factors which affect the elasticity of demand.
12. Explain the reasons for – Increasing Returns to a Factor – Diminishing Returns to a Factor – Negative Returns to a Factor.
OR
Give the difference between Returns to a Factor and Returns to Scale.

TOPICS DISCUSSED -Substitute and Complementary Commodity and Inferior Commodity, Factors affecting Elasticity of Demand.Total Production, Marginal Production, Average Production, and Reasons behind different phases of Law of Variable Proportion – IRF, DRF and NRF.

Class Test “XII” – Economics

Time – 90 Minutes

Day - 04

M.M. – 40

Note - Q. 1-4 = 1 Marks, Q. 5-6 = 3 Marks, Q. 7-9 = 4 Marks, Q. 10-12 = 6 Marks

1. What do you mean by opportunity cost?
2. What is a supply schedule?
3. How does the Total Fixed Cost changes with change in output?
4. Give the meaning of Marginal Cost.
5. State the distinction between Explicit and Implicit cost. Give an example of each.
6. Why does the vertical distance between AC curve and AVC curve gradually decline?
OR
Draw TC, TFC and TVC in a single diagram.
7. Explain the relationship between AR and MR under monopoly with the help of a schedule and a diagram.
OR
Explain the relationship between AR and MR under perfect competition with the help of a schedule and a diagram.
8. State whether the following the following statements are true or false. Give reasons
 - i) When marginal revenue is zero, average revenue will be constant
 - ii) Marginal revenue is always the price at which the last unit of commodity is sold.
9. Draw AC, AVC and MC in a single Diagram.
OR
Differentiate between Change in Quantity Supplied and Change in Supply.
10. Answer the following questions:
 - i) Why does AFC curve never touches the X- axis?
 - ii) Why does TVC curve start from origin?
 - iii) Why AC, AVC and MC curve are U-shaped?
 - iv) Why the gap between TC curve and TVC curve remains constant with rise in output?
 - v) Why does AC curve lie above the AVC curve?
 - vi) Why does TC curve and TFC curve start from the same point above the origin?
OR
Explain the relationship between – (1) AC and MC, (2) AVC and MC, (3) TC and MC
11. Explain the producer’s equilibrium with the help of MR = MC Approach.
12. Explain any four factors which affect the Supply of a commodity with the help of diagram.

TOPICS DISCUSSED -Basic Concept of Costs, Explicit and Implicit, Relation between different Costs. Revenue – Total, Marginal and Average, and their relation, Producer equilibrium with MR MC approach. Supply- Individual and Market, Factors affecting Supply, Difference between Change in Supply and Change in quantity supplied.

Class Test “XII” – Economics

Time – 90 Minutes

Day - 05

M.M. – 40

Note - Q. 1-4 = 1 Marks, Q. 5-6 = 3 Marks, Q. 7-9 = 4 Marks, Q. 10-12 = 6 Marks

1. What do you mean by homogeneous product?
2. What is meant by Price discrimination?
3. What is selling cost?
4. What is a cartel?
5. If at a given price of a commodity, there is excess demand, how will the equilibrium price be reached? Explain by diagram. OR
Explain the types of Price Discrimination.
6. If at a given price of a commodity, there is excess Supply, how will the equilibrium price be reached? Explain by diagram. OR
Distinguish between Collusive / Cooperative and non-Collusive / Non-cooperative oligopoly.
7. Explain the effect of ‘Maximum Price Ceiling’ on the market of a good. Use Diagram. OR
Explain the meaning and need for ‘Maximum Price Ceiling’.
8. What are the effects of ‘Price Floor’ (Minimum Price Ceiling) on the market of a good? Use diagram. OR
Why does the government of India fix ‘Support Price’ for some crops? Explain.
9. Explain the process of price determination with the help of a schedule and a diagram.
10. Explain the following features of Perfect Competition Market – (1) Very Large number of Buyers and sellers, (2) Homogeneous Product, (3) Freedom of entry and Exit. OR
Explain the effect on the equilibrium quantity and equilibrium Price in the following case.
(1) Demand Increase > Supply Decrease (2) Supply Increase when Demand is Perfectly Elastic,
(3) Demand increases < Supply Increases (4) Supply Decrease when Demand is Perfectly Inelastic
11. Explain the following features of Monopoly Market – (1) Single seller, (2) No Close Substitute, (3) Restriction on Entry and Exit. OR
Explain the following features of Oligopoly Market – (1) Interdependence of firms, (2) Group Behaviour, (3) Indeterminate demand Curve.
12. Explain the following features of Monopolistic Competition Market – (1) Product Differentiation, (2) Non Price Competition, (3) Lack of perfect knowledge. OR
Explain the effect on the equilibrium quantity and equilibrium Price in the following case.
(2) Demand Decrease > Supply Decrease (2) Supply Increase
(3) Demand Decreases < Supply Increases (4) Demand Increases.

TOPICS DISCUSSED -Market Forms and their features – Perfect Competition, Monopoly, monopolistic Competition, Oligopoly, and Difference between Markets, Price Determination, Excess Demand and Excess Supply.

Class Test “XII” – Economics

Time – 90 Minutes

Day - 06

M.M. – 40

Note - Q. 1-4 = 1 Marks, Q. 5-6 = 3 Marks, Q. 7-9 = 4 Marks, Q. 10-12 = 6 Marks

1. What are transfer payments?
2. How is net exports calculated?
3. Give the meaning of personal income.
4. What do you mean by two sector economy?
5. Distinguish between Stock and Flow.
OR
Distinguish between Factor Income and Transfer Income.
6. Give the difference between Final Goods and Intermediate Goods.
OR
Give the difference between National Income and Domestic Income.
7. What are externalities and how does it affect the society at large?
OR
Is GNP a real indicator of economic welfare?
8. Explain the terms – (1) Domestic Territory, (2) Normal Resident
OR
Give the difference between Consumption Goods and Capital Goods.
9. What are the components of NFYA? Explain.
OR
Explain the terms – (1) Net Indirect Tax, (2) Depreciation
10. State the steps for calculating national income using the Value Added method.
OR
State precautions while using the output method.
11. State the steps for calculating national income using the income method
OR
State precautions while using the income method.
12. State the steps for calculating national income using expenditure method.
OR
State precautions while using the expenditure method

TOPICS DISCUSSED - Stock, flow, Circular flow of income, Difference between basic Concepts of National Income like factor income, transfer Income, Final and Intermediate Goods, Consumption and Capital Goods, Domestic Territory, Normal Resident, NIT, Depreciation and NFYA. Precaution to Calculate NI with all methods.

Class Test “XII” – Economics

Time – 90 Minutes

Day - 07

M.M. – 40

Note - Q. 1-4 = 1 Marks, Q. 5-6 = 3 Marks, Q. 7-9 = 4 Marks, Q. 10-12 = 6 Marks

1. State two components of money supply
2. What is money?
3. What is C-C economy?
4. What is repo rate?
5. Explain “Banker’s to the Government” function of Central Bank.
OR
Explain “Banker’s Bank” function of Central Bank.
6. Explain “Clearing House” function of Central Bank.
OR
Explain the components of LRR.
7. How money solve the problem of “Double coincidence of wants”?
8. State the functions of money? Explain its primary functions.
OR
Explain the following function of Central Bank – (1) Note Issue, (2) Custodian of Foreign Exchange reserves.
9. Explain the term – (1) High Powered Money, (2) Money Multiplier.
10. Explain the process of credit creation by giving numerical example.
11. How does a central bank influence credit creation by commercial through – (1) Open Market Operations, (2) Bank Rate, (3) Repo Rate.
OR
How does a central bank influence credit creation by commercial through – (1) Legal Reserve Ratio, (2) Reverse Repo Rate (3) Margin Requirements.
12. What are the measures of money supply (M1, M2, M3, and M4) in India? Explain.

TOPICS DISCUSSED - Money, Function of Money, Money Supply, Credit Creation by Commercial Bank, Functions of Central Bank.

Class Test “XII” – Economics

Time – 90 Minutes

Day - 08

M.M. – 40

Note - Q. 1-4 = 1 Marks, Q. 5-6 = 3 Marks, Q. 7-9 = 4 Marks, Q. 10-12 = 6 Marks

1. What is meant by non-tax receipts?
2. What is a balanced budget?
3. What is Direct Tax?
4. Define foreign exchange.
5. Distinguish between direct tax and indirect tax.
6. Differentiate between balance of trade and balance of payment.
OR
Differentiate between Capital Account and Current Account.
7. What is Fiscal Deficit? What are its implications?
OR
What is Revenue Deficit? What are its implications?
8. India is suffering from the problem of inequalities in the distribution of income & wealth. How can a budget be used as an instrument?
OR
Government rises its expenditure on producing public goods. Which economic value does it reflect? Explain.
9. Differentiate between Developmental and Non-Developmental Expenditure.
OR
Differentiate between Plan and Non-Plan Expenditure.
10. Distinguish between revenue expenditure and capital expenditure with an example of each.
OR
Distinguish between revenue receipt and capital receipt with an example of each.
11. (a) Differentiate between Autonomous and Accommodating Items.
(b) What do you mean by Primary Deficit? What zero Primary deficit indicate?
12. Explain the Objectives of government budget.

TOPICS DISCUSSED -Budget, Objectives, Component – Revenue Receipt and Expenditure, Capital Receipt and Expenditure, Developmental and Non-Developmental Expenditure, Plan and Non-Plan Expenditure, Implication of Deficit, Balance of Payments, Component of Capital and Current Account, Autonomous and Accommodating Items.

Class Test “XII” – Economics

Time – 90 Minutes

Day - 09

M.M. – 40

Note - Q. 1-4 = 1 Marks, Q. 5-6 = 3 Marks, Q. 7-9 = 4 Marks, Q. 10-12 = 6 Marks

1. What is aggregate demand?
2. What is meant by full employment?
3. What is meant by investment?
4. What is meant by foreign exchange rate?
5. Explain briefly the effect of excess demand on output, employment and price.
OR
Explain briefly the effect of deficient demand on output, employment and price.
6. What are the sources of demand for foreign exchange? Explain
OR
What are the sources of supply of foreign exchange? Explain.
7. Distinguish between APC and MPC. The value of which of these two can be greater than one and when?
OR
Differentiate between fixed and flexible exchange rate.
8. What is meant by investment multiplier? Explain the relationship between MPC and multiplier.
9. How is foreign exchange rate determined? Use diagram.
OR
Explain – (1) APS, (2) APC, (3) MPS, (4) MPC
10. Explain the role of following in correcting Excess Demand situation – (1) Bank Rate, (2) Open Market Operation, (3) Expenditure Policy, (4) Legal Reserve Ratio.
OR
Explain the role of following in correcting Deficient Demand situation – (1) Bank Rate, (2) Open Market Operation, (3) Expenditure Policy, (4) Legal Reserve Ratio.
11. Distinguish between Appreciation / Revaluation and Depreciation / Devaluation of currency. How it will affect the export and import of an economy.
12. Explain determination of equilibrium level of income using $I=S$ approach. Use diagram. What will happen if $I>S$ or $S>I$.
OR
Explain determination of equilibrium level of income using $AD=AS$ approach. Use diagram. What will happen if $AD>AS$ or $AS>AD$.

TOPICS DISCUSSED -FER – Appreciation and depreciation and Revaluation and Devaluation, Impact on Export and Import. Types of Foreign exchange Rate. Determination of Income employment and Output with $AD=AS$ and $I=S$ approach, Propensity to Consume and Save. Types of Employment and Unemployment.

SCANNER SINCE— 2005

(Most frequently Asked Questions)

MICRO ECONOMICS		
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3	Economic Problem	4
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6	Micro and Macro Economics Difference	3
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2	Numerical based on percentage / proportionate method	7
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05	PRODUCTION	
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3	Difference between Fixed and Variable Cost	2
4	Relation between AC and MC	2
5	Natural Relationship between AC, AVC and MC	2
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3	Meaning of Revenue	3
08	PRODUCER'S EQUILIBRIUM	
1	Determination of Firm's Equilibrium ($MR = MC$)	7
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3	Expansion and Increase in Supply	3
4	Contraction and Decrease in Supply	2
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2	Meaning of Oligopoly and Implications of its Features	6
3	Meaning of Monopoly and Implications of its Features	4
4	Why a firm is Price Taker under perfect Competition?	4
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2	If there is Excess demand, how will equilibrium price be reached?	3
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4	Effect of Other change in demand and supply curve on Equilibrium price	10

MACRO ECONOMICS

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2	Credit Creation by Commercial Banks	3
3	Meaning of Demand Deposits	3
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4	Numerical from Equilibrium Condition	5
5	Numerical on APC, APS, MPC, MPS	4
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8	Derivation of Saving Curve from Consumption Curve and Consumption Curve from Saving Curve	4
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4	Difference between Direct Tax and Indirect Tax	4
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9	Numerical on Deficit of Budget	2
10	Primary Deficit / Revenue Deficit and Implication	2
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2	Difference between BOP and BOT	4
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5	Components of capital account on BOP	2
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3	Relationship between price and demand of foreign exchange	2
4	Meaning of Flexible and Floating Exchange rate system	2
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6	Effect of Appreciation / Revaluation on Exports / Imports	2
7	Effect of Depreciation / Devaluation on Exports / Imports	2
8	Difference between fixed and flexible exchange rate	1
9	Effects of change in demand and supply on FER	1

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Change of Price of Y and its Impact on X

<https://youtu.be/mzGZB1R208E>

Real GDP and Nominal GDP

<https://youtu.be/CvTwt4Rly6o>

Factors Affecting Elasticity of Demand

<https://youtu.be/W4vdm6lPyBl>

Production Function

<https://youtu.be/QAGNHAg1uXA>

Different Cost Curves

<https://youtu.be/hJzU8zp18yg>

Relation between different Cost Concepts

<https://youtu.be/8k9JxpUJl6w>

Revenue Curves in different Markets

<https://youtu.be/npjFcw2KfUo>

Producer's Equilibrium

<https://youtu.be/itJgAlRnsjg>

Geometric Measurement of Elasticity of Supply

<https://youtu.be/zXc9cotfajw>

Change in Demand and Supply

https://youtu.be/R_JCIAQW8TM

Excess Demand and Excess Supply

<https://youtu.be/SQk1-Fq2-QU>

Price Ceiling and Price Floor

<https://youtu.be/QUIMCnAgIR0>

Credit Creation by Commercial Banks

<https://youtu.be/IVOMprk0dz4>

Functions of Central Bank

<https://youtu.be/TTceIMmTc5o>

Objectives of Government Budget

https://youtu.be/0x7_pVzAPA

Revenue and Capital Receipts and Expenditures

<https://youtu.be/XS54gbGXF4>

Budget Deficits and its Implications

<https://youtu.be/4Q3FEk8rhRk>

Autonomous and Accommodating Items of BOP

<https://youtu.be/pJjgt0mEzdw>

BOT and BOP and Economic Transactions

<https://youtu.be/8uv3qfgYKaE>

Elasticity of Demand - Expenditure Method

https://youtu.be/jHd4fQxm_oM

Excess Demand and Deficient Demand

<https://youtu.be/JaMIXDRFD7I>

Aggregate Demand

<https://youtu.be/7rD-97yZECU>

Aggregate Supply

<https://youtu.be/noU6cl-DDAM>

Change in Demand and Supply of Foreign Exchange

<https://youtu.be/WMdd4cxXrHM>

Exchange Rate Determination

<https://youtu.be/UOpRE6svJdU>

Functions of Money

<https://youtu.be/9rCl-lh3q2A>

Foreign Exchange Rate - Appreciation and Depreciation and Revaluation and Devaluation

<https://youtu.be/919J4rHEfyw>

Impact of Appreciation / Revaluation and Depreciation / Devaluation on Export and Import

<https://youtu.be/OOWsPRq78pU>

Value Added Method

<https://youtu.be/GWTaxOUXuHE>

Personal Disposable Income

<https://youtu.be/A2GVk-SEWY8>

Personal Income

<https://youtu.be/A-HromP3Qlg>

Private Income

https://youtu.be/zzUusSc_tN4

Net Factor Income from Abroad

<https://youtu.be/pJit9JoYGYg>

Net Indirect Tax

<https://youtu.be/svWmAnqgXgE>

NNDI and GNDI

<https://youtu.be/7AtLit-yyfY>

Consumption Function

<https://youtu.be/La707LaHmMQ>

Investment Function

<https://youtu.be/5MunzmqcNgg>

Relation between APC APS and MPC MPS

<https://youtu.be/DqIBdbfG3UY>

Saving Function

<https://youtu.be/0xWnrReAIMA>

Derivation of Saving and Consumption

<https://youtu.be/2q1OQoJpD2U>

National Income Determination $AD=AS$ & $I=S$

<https://youtu.be/IZMreTvifoU>

Circular Flow of Income

<https://youtu.be/qFTzWLxk5-U>

Expenditure Method

<https://youtu.be/HzQFJ2Qqzlg>

Income Method

https://youtu.be/KRZJb_2qpow

Calculation of Consumption and Saving Function

<https://youtu.be/tOfLO7Nclqg>

Multiplier and its working

<https://youtu.be/W3WrtDfzdyI>

Law of Demand

<https://youtu.be/jDG9urXeMU8>

Calculation of Costs Formula

<https://youtu.be/e7wTzbN4tw8>

Change in supply and Change in Quantity Supplied

<https://youtu.be/CoLXgb5V1Xc>

Supply and its Affecting Factors

<https://youtu.be/dkHSrp6vPjM>

Budget Component - Revenue and Capital

<https://youtu.be/XS54gbGXF4>