

1.INTRODUCTION TO MICRO-ECONOMICS

TWO MARKS QUESTION AND ANSWERS

21. What is meant by Economics?

- 'Economics' means 'management of households'.

22. Define microeconomics.

- Micro Economics is the study of the economic actions of individual units say households, firms or industries.

23. What are goods?

- Goods satisfy human wants. In Economics, the term 'goods' implies the term 'services' also, unless specified otherwise.

24. Distinguish goods from services.

Goods	Services
Tangible	Intangible
Transferable	Nontransferable

25. Name any two types of utility.

1. Form Utility 2. Time Utility

26. Define positive economics.

- Positive science deals with what it is, means, it analyses a problem on the basis of facts and examines its causes
- 27. Give the meaning of deductive method.

Deductive method consists in deriving conclusions from general truths; it takes few general principles and applies them to draw conclusions.

PART C 3MARKS QUESTIONS AND ANSWERS

28. Explain the scarcity definition of Economics and assess it.

- Scarcity Definition: Lionel Robbins "Economics is a science which studies human behaviour as a relationship between ends and scarce means which have alternative uses".

The major features of Robbins' definition are:

- Ends refer to human wants.
- On the other hand, resources or means that go to satisfy the unlimited human wants are limited or scarce in supply.
- Further, the scarce means are capable of having alternative uses.

Criticism

- Robbins does not make any distinction between goods conducive to human welfare and goods that are not.
- b. Robbins reduces Economics merely to theory of resource allocation.
- c. Robbins' definition does not cover the theory of economic growth and development.

29. What are the crucial decisions involving 'what is produced?'

- Whether to produce more of food, clothing and housing or to have more luxury goods

- Whether to have more agricultural goods or to have industrial goods and services
- Whether to use more resources in education and health or to use more resources in military services
- Whether to have more consumption goods or to have investment goods
- Whether to spend more on basic education or higher education

30. Explain different types of economic activities.

1. Consumption

- Human wants coming under consumption is the starting point of economic activity.

2. Production

- Production is the process of transformation of inputs into output.

3. Exchange

- Exchange is concerned with price determination in different market forms.

4. Distribution

- Production is the result of the coordination of factors of production

31. Elucidate different features of services.

Intangible:

- Intangible things are not physical objects but exist in connection to other things.
- But today, the intangible things are converted and stored into tangible items such as recording a music piece into a pen-drive.
- They are marketed as a good.

Heterogeneous:

- Services vary across regions or cultural backgrounds.
- They can be grouped on the basis of quality standards.
- A single type service yields multiple experiences.

Inseparable from their makers:

- Services are inextricably connected to their makers.

Perishable:

- Services cannot be stored as inventories like assets.

32. What are the important features of utility?

1. Utility is psychological.

2. Utility is not equivalent to usefulness.

3. Utility is not the same as pleasure.

4. Utility is personal and relative.

5. Utility is the function of the intensity of human want.

6. Utility is a subjective concept it cannot be measured objectively and it cannot be measured numerically;

7. Utility has no ethical or moral significance.

33. Distinguish between microeconomics and macroeconomics.

Micro Economics	Macro Economics
1. It is that branch of economics which deals with the economic decision-making of individual economic agents such as the producer, the consumer etc.	1. It is that branch of economics which deals with aggregates and averages of the entire economy. E.g., aggregate output, national income, aggregate savings and investment, etc.
2. It takes into account small components of the whole economy.	2. It takes into consideration the economy of the country as a whole.
3. It deals with the process of price determination in case of individual products and factors of production.	3. It deals with general price-level in any economy.
4. It is known as price theory	4. It is also known as the income theory.
5. It is concerned with the optimization goals of individual consumers and producers	5. It is concerned with the optimization of the growth process of the entire economy.

34. Compare positive economics and normative economics.

- Positive science deals with what it is, means, it analyses a problem on the basis of facts and examines its causes. For example, at the time of a price increase, its causes are analysed.
- On the other hand, normative science responds to a question like what ought to be.
- In short, positive science is concerned with 'how? and why?' and normative science with 'what ought to be.'

PART D 5MARKS QUESTIONS AND ANSWERS**35. Compare and contrast various definitions of Economics.****1.Wealth Definition: Adam Smith**

- Adam Smith defines "Economics as the science of wealth".
- He states that every man is motivated by his self interest.

2.Welfare Definition: Alfred Marshall

- Alfred Marshall in his book "Principles of Economics" defines Economics thus: "Political Economy" or Economics is a study of mankind in the ordinary business of life; it examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of well-being.
- Thus, it is on one side a study of wealth; and on the other, and more important side, a part of the study of man."

3.Scarcity Definition: Lionel Robbins

- Lionel Robbins published a book “An Essay on the Nature and Significance of Economic Science” .
- According to him, “Economics is a science which studies human behaviour as a relationship between ends and scarce means which have alternative uses”.

4. Growth Definition: Samuelson

- Paul Samuelson defines Economics as “the study of how men and society choose, with or without the use of money, to employ scarce productive resources which could have alternative uses, to produce various commodities over time, and distribute them for consumption, now and in the future among various people and groups of society”.

36. Explain various divisions of Economics.

1. Consumption

- Human wants coming under consumption is the starting point of economic activity.
- In this section the characteristics of human wants based on the behaviour of the consumer, the diminishing marginal utility and consumer's surplus are dealt with.

2. Production

- Production is the process of transformation of inputs into output.
- This division covers the characteristics and role of the factors of production namely Land, Labour, Capital and Organization and also the relationship between inputs and output

3. Exchange

- Exchange is concerned with price determination in different market forms.
- This division covers trade and commerce.
- Consumption is possible only if the produced commodity is placed in the hands of the consumer

4. Distribution

- Production is the result of the coordination of factors of production.
- Since a commodity is produced with the efforts of land, labour, capital and organization, the produced wealth has to be distributed among the cooperating factors.

37. Elaborate the nature and scope of Economics.

The nature of Economics

- The nature of a subject refers to its contents and how and why they find a place in the subject. This nature is understood by studying the various definitions given by the notable economists.
- Each definition represents a unique generalisation.
- A wide variety of definitions paves the way to arrive a near-complete agreement on the subject-matter of Economics.

Four definitions, each referring to particular stage of the growth of the subject of Economics, are presented here.

1. Smith's Wealth Definition, representing the Classical era;

2. Marshall's Welfare Definition, representing the Neo-Classical era;
3. Robbins' Scarcity Definition, representing the New Age; and,
4. Samuelson's Growth Definition, representing the Modern Age.

Scope of Economics

- The scope of the subject of Economics refers to on the subject-matter of Economics. It throws light on whether it is an art or a science and if science, whether it is a positive science or a normative science.
- Economics focuses on the behaviour and interactions among economic agents, individuals and groups belonging to an economic system.
- Economics studies the ways in which people use the available resources to satisfy their multiplicity of wants.
- Economics is concerned with activities of human being only.
- The activities of rational or normal human beings are the subject-matter of Economics.
- All human activities related to wealth constitute the subject-matter of Economics.

38. Explain basic problems of the economy with the help of production possibility curve.

- Production possibility curve shows the menu of choice along which a society can choose to substitute one good for another, assuming a given state of technology and given total resources.

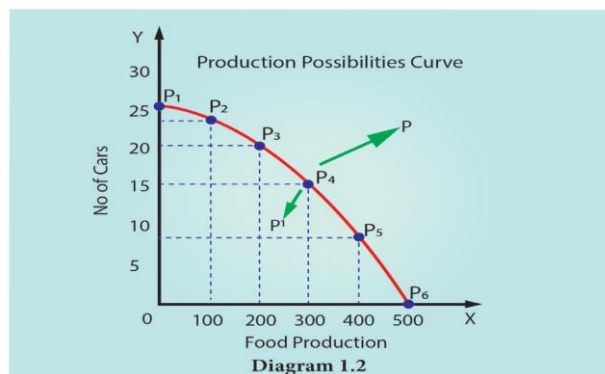
Assumptions

- (i) The time period does not change.
- (ii) Techniques of production are fixed.
- (iii) There is full employment in the economy.
- (iv) Only two goods can be produced from the given resources.
- (v) Resources of production are fully mobile

Production possibilities schedule

Production possibilities	Quantity of food production in tons	No of car production
I	0	25
II	100	23
III	200	20
IV	300	15
V	400	8
VI	500	0

- This schedule suggests that if all resources are thrown into the production of food, a maximum of 500 tons of food can be produced, given the existing technology.
- If on the other hand, all resources are instead used for producing cars, 25 cars can be produced.
- In between these two extreme possibilities exist.
- If we are willing to give up some food, we can have some cars.



- We can obtain a production possibility curve by drawing production possibilities schedule graphically.
- The quantity of food is shown on x-axis and the number of cars is shown on y-axis, the different six production possibilities are being shown as point P1 P2 P3 P4 P5 & P6..

The PPC shifts upward or downward due to:

1. The change in the supply of productive resources and
2. The change in the state of technology.

2.CONSUMPTION ANALYSIS

TWO MARKS QUESTIONS AND ANSWERS

21. Define Utility.

- Utility is the capacity of a commodity to satisfy human wants

22. Mention the classifications of wants.

1.Necessaries 2.Comforts 3.Luxuries

23. Name the basic approaches to consumer behaviour.

- Consumption is an essential economic activity.
- The quantity and quality of consumption determine the standard of living of the people

24. What are the degrees of price elasticity of Demand?

1. Perfectly Elastic Demand ($E_p = \infty$)

2. Perfectly Inelastic Demand ($E_p = 0$)

3. Relatively Elastic Demand ($E_p > 1$)

4. Relatively Inelastic Demand

5. Unitary Elastic Demand

25. State the meaning of indifference curves.

- Indifference Curves means all those combinations of any two goods which give equal satisfaction to the consumer.

26. Write the formula of consumers surplus.

- Consumer's surplus = Potential price–Actual price.
- Mathematically,
- Consumer's surplus = $TU - (P \times Q)$
- TU = Total Utility, P = Price and Q = Quantity of the commodity

27. What are Giffen goods? Why?

- The Giffen good or inferior good is an exception to the law of demand.
- When the price of an inferior good falls, the poor will buy less and vice versa.

PART C 3 MARKS QUESTIONS AND ANSWERS

27. Describe the feature of human wants.

1. Wants are unlimited
2. Wants become habits
3. Wants are Satiabile
4. Wants are Alternative
5. Wants are Competitive
6. Wants are Complementary
7. Wants are Recurring

28. Mention the relationship between marginal utility and total utility.

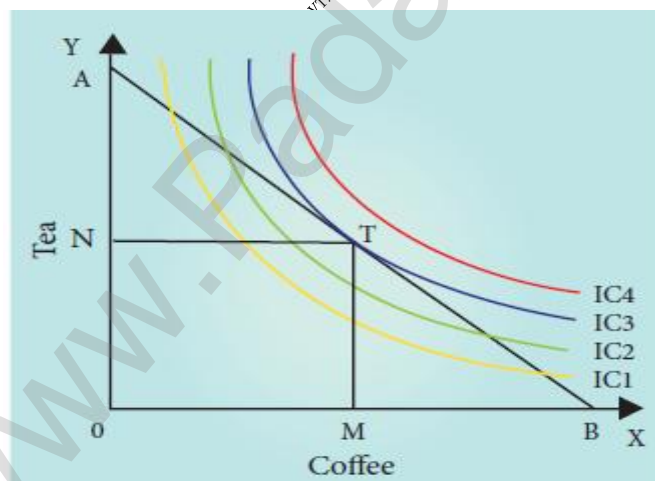
- Total Utility refers to the sum of utilities of all units of a commodity consumed.
- Marginal Utility is the addition made to the total utility by consuming one more unit of a commodity.

$$MU_n = TU_n - TU_{n-1}$$

	Marginal Utility	Total Utility
(i)	Declines	Increases
(ii)	Reaches zero	Reaches maximum
(iii)	Becomes negative	Declines

29. Explain the concept of consumer's equilibrium with a diagram.

- The consumer reaches equilibrium at the point where the budget line is tangent on the indifference curve.

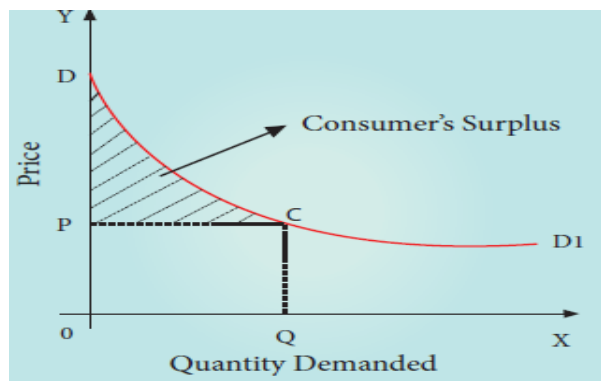


- T is the point of equilibrium as budget line AB is tangent on indifference curve IC3 the upper IC which implies maximum possible level of satisfaction.
- At equilibrium point, the slope of IC refers to MRS_{XY} and the slope of BL (Budget Line) refers to ratio of price of X to price of Y ie P_x/P_y . Therefore $MRS_{x,y} = P_x/P_y$.

30. Explain the theory of "consumer's surplus".

- Alfred Marshall defines consumer's surplus as, "the excess of price which a person would be willing to pay a thing rather than go without the thing, over that which he actually does pay is the economic measure of this surplus satisfaction. This may be called consumer's surplus".

Consumer's surplus = $TU - (P \times Q)$



- X axis shows the amount demanded and Y axis represents the price.
- DD1 shows the utility which the consumer derives from the purchase of different amounts of commodity.
- When price is OP, the amount demanded is OQ.
- Hence, actual price is OPCQ ($OP \times OQ$). Potential Price (Total Utility) is ODCQ.

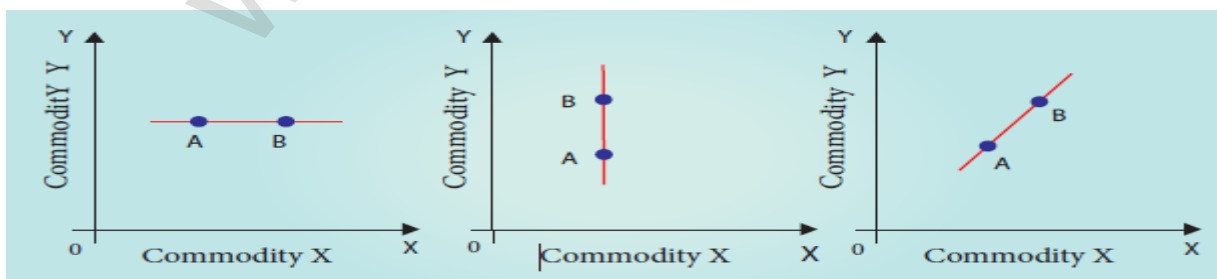
31. Distinguish between extension and contraction of demand.

- The demand for a commodity changes due to a change in price.
- It is called extension and contraction of demand.
- When there is decrease in price of commodity there is an increase in demand of that commodity.
- This is called extension of demand.
- When there is increase in price of a commodity there is a decrease in the demand for that commodity.
- This is called contraction of demand.
- Thus demand varies in opposite direction due to change in price.

32. What are the properties of indifference curves?

1. Indifference curve must have negative slope

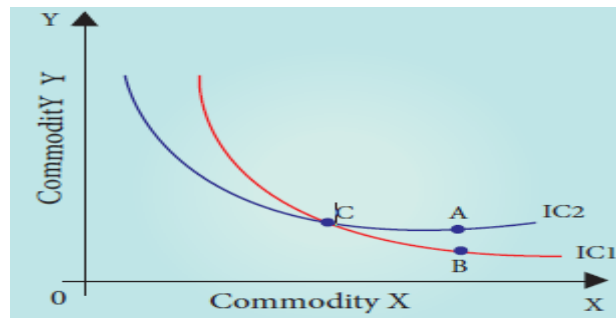
- An indifference curve has a negative slope, which denotes that if the quantity of commodity (y) decreases, the quantity of the other (x) must increase, if the consumer is to stay on the same level of satisfaction.



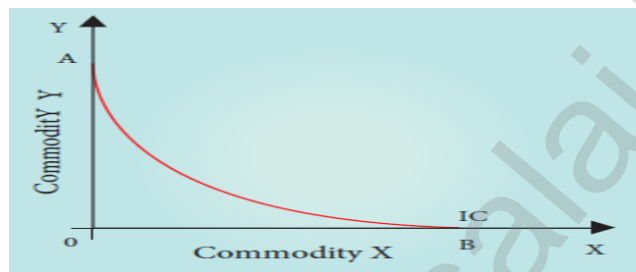
2. Indifference Curves are convex to the origin

- Indifference curves are not only negatively sloped, but are also convex to the origin.

3. Indifference curve cannot intersect



4. Indifference curves do not touch the horizontal or vertical axis.



PART D 5 MARKS QUESTIONS AND ANSWERS

34. Explain the law of demand and its exceptions.

- The Law of Demand says as “the quantity demanded increases with a fall in price and diminishes with a rise in price”. –Marshall

Assumptions of Law of Demand

1. The income of the consumer remains constant.
2. The taste, habit and preference of the consumer remain the same.
3. The prices of other related goods should not change.
4. There should be no substitutes for the commodity in study.
5. The demand for the commodity must be continuous.
6. There should not be any change in the quality of the commodity.

Demand Schedule

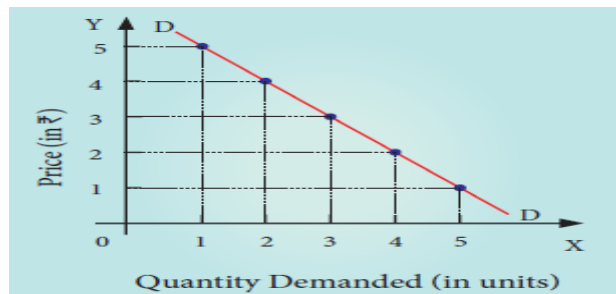
Price	Quantity Demanded
5	1
4	2
3	3
2	4
1	5

Explanation

- The law of demand explains the relationship between the price of a commodity and the quantity demanded of it.

- This law states that quantity demanded of a commodity expands with a fall in price and contracts with a rise in price.
- In other words, a rise in price of a commodity is followed by a contraction demand and a fall in price is followed by extension in demand.

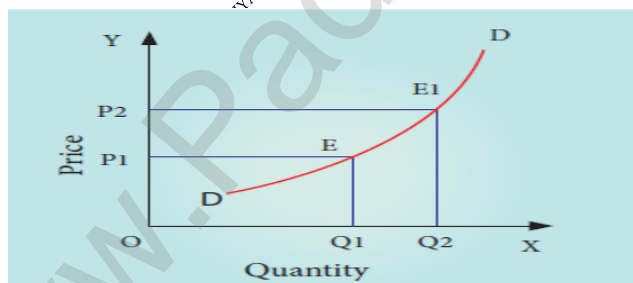
Demand Curve



- In the diagram, X axis represents the quantity demanded and Y axis represents the price of the commodity.
- DD is the demand curve, which has a negative slope i.e., slope downward from left to right which indicates that when price falls, the demand expands and when price rises, the demand contracts.

Exceptions to the law of demand

- Normally, the demand curve slopes downwards from left to right.
- But there are some unusual demand curves which do not obey the law and the reverse occurs.
- A fall in price brings about a contraction of demand and a rise in price results in an extension of demand. Therefore the demand curve slopes upwards from left to right. It is known as exceptional demand curve.



35. Elucidate the law of diminishing marginal utility with diagram.

- Marshall states the law as, “the additional benefit which a person derives from a given increase of his stock of a thing, diminishes with every increase in the stock that he already has”.

Assumptions

1. Utility can be measured by cardinal numbers such as 1, 2, 3 and so on.
2. The marginal utility of money of the consumer remains constant.
3. The consumer should be a rational consumer and his aim is to attain maximum satisfaction with minimum expenditure.
4. The units of the commodity consumed must be reasonable in size.
5. The commodity consumed should be homogeneous or uniform in character like weight, quality, taste, colour etc.

6. The consumption of goods must take place continuously at a given period of time.

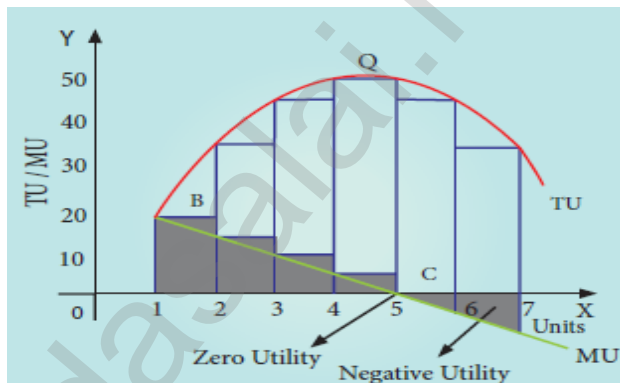
Explanation

- The Law of Diminishing Marginal Utility states that if a consumer continues to consume more and more units of the same commodity, its marginal utility diminishes.

Illustration

- The law can be explained with a simple illustration.
- Suppose a consumer wants to consume 7 apples one after another.
- The utility from the first apple is 20.
- But the utility from the second apple will be less than that of the first (say 15), the third less than that of the second (say 10) and so on.
- Finally, the utility from the fifth apple becomes zero and the utilities from sixth and seventh apples are negative.

Units of Apple	Total Utility	Marginal Utility
1	20	20
2	35	15 (35-20)
3	45	10 (45-35)
4	50	5 (50-45)
5	50	0 (50-50)
6	45	-5 (45-50)
7	35	-10(35-45)



- In Table, we find that the total utility goes on increasing but at a diminishing rate.
- On the other hand, marginal utility goes on diminishing.
- When marginal utility becomes zero, the total utility is maximum and when marginal utility becomes negative, the total utility diminishes.

Criticisms

1. Utility cannot be measured numerically, because utility is subjective.
2. This law is based on the unrealistic assumptions.
3. This law is not applicable to indivisible commodities.

36. Explain the law of Equi-marginal utility.

- Marshall states the law as, "If a person has a thing which he can put to several uses, he will distribute it among these uses in such a way that it has the same marginal utility in all. For, if it had a greater marginal utility in one use than another he would gain by taking away some of it from the second use and applying it to first".

Assumptions

1. The consumer is rational in the sense that he wants to get maximum satisfaction.

2. The utility of each commodity is measurable in cardinal numbers.
3. The marginal utility of money remains constant.
4. The income of the consumer is given.
5. There is perfect competition in the market
6. The prices of the commodities are given.
7. The law of diminishing marginal utility operates.

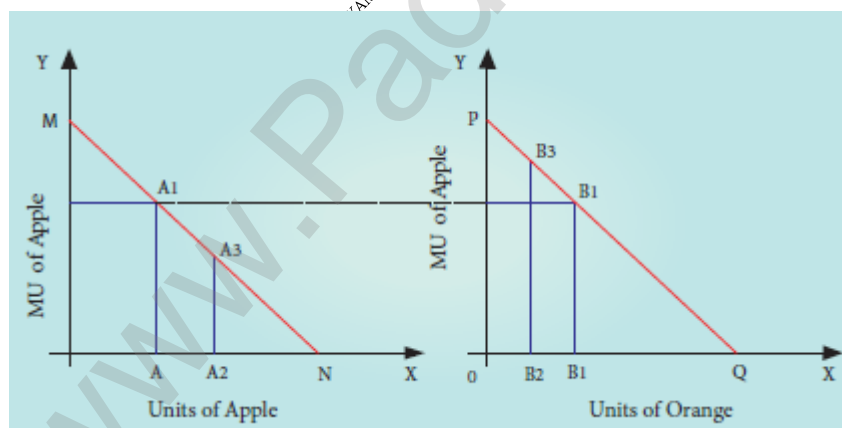
Explanation

- The law can be explained with the help of an example.
- Suppose a consumer wants to spend his limited income on Apple and Orange.
- He is said to be in equilibrium, only when he gets maximum satisfaction with his limited income.

The Law of Equi-Marginal Utility

Units of Commodities	Apple Total Utility	Orange		
		Marginal Utility	Total Utility	Marginal Utility
1.	25	25	30	30
2.	45	20	41	11
3.	63	18	49	8
4.	78	15	54	5
5.	88	10	58	4
6.	92	4	61	3

- This Law can be illustrated with the help of table.
- Let us assume that the consumer has a given income of 11.
- He wants to spend this entire income (i.e., 11) on Apple and Orange. The price of an Apple and the price of an Orange is 1 each.



- In diagram, X axis represents the amount of money spent and Y axis represents the marginal utilities of Apple and Orange respectively. If the consumer spends 6 on Apple and 5 on Orange, the marginal utilities of both are equal i.e., $AA_1 = BB_1$ ($4=4$). Hence, he gets maximum utility

Criticisms

1. In practice, utility cannot be measured, only be felt.
2. This Law cannot be applied to durable goods.

37. What are the methods of measuring Elasticity of demand?

1. The Percentage Method

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

- It is also known as ratio method, when we measure the ratio as:

$$e_p = \frac{\% \Delta Q}{\% \Delta P} \text{ where,}$$

$\% \Delta Q$ = percentage change in demand

$\% \Delta P$ = Percentage change in price

2. Total Outlay Method

- Marshall suggested that the simplest way to decide whether demand is elastic or inelastic is to examine the change in total outlay of the consumer or total revenue of the firm.

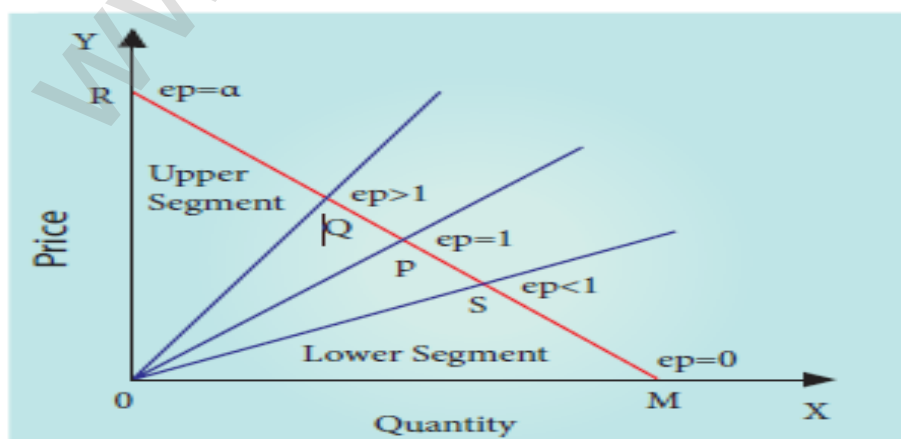
Total Revenue = (Price x Quantity Sold)

TR = (P x Q)

Price	Quantity Demanded	Total Outlay	Elasticity
150	3	450	$e > 1$
125	4	500	
100	5	500	$e = 1$
75	6	450	

3. Point or Geometrical Elasticity

- When the demand curve is a straight line, it is said to be linear.
- Graphically, the point elasticity of a linear demand curve is shown by the ratio of the segments of the line to the right and to the left of the particular point.



3.PRODUCTION ANALYSIS

TWO MARKS QUESTIONS AND ANSWERS

21. Classify the factors of production.

- Land, labour, capital and organization

22. Define Labour.

- According to Marshall, labour represents services provided by the factor labour, which helps in yielding an income to the owner of the labour-power.

23. State the production function.

- Production function refers to the relationship among units of the factors of production (inputs) and the resultant quantity of a good produced (output).

24. Define Marginal Product of a factor.

- It is the addition or the increment made to the total product when one more unit of the variable input is employed.
- $MP = \Delta TP / \Delta N$ OR $MP = TP(n) - TP(n-1)$

25. What is Iso-cost line?

- An iso-cost line represents different combinations of inputs which shows the same amount of cost

26. What are conditions for producer's equilibrium?

- The iso-cost line must be tangent to iso-quant curve.
- At point of tangency, the iso-quant curve must be convex to the origin or MRTSLk must be declining.

27. What are the reasons for upward sloping supply curve?

- As the price of the commodity increases, the quantum supplied of the commodity also increases.
- Thus the supply curve has a positive slope from left to right.

PART C- 3 MARKS QUESTIONS AND ANSWERS

28. What are the characteristics of land?

1. Land is a primary factor of production.
2. Land is a passive factor of production.
3. Land is the free gift of Nature.
4. Land has no cost of production.
5. Land is fixed in supply. It is inelastic in supply.
6. Land is permanent.
7. Land is immovable.
8. Land is heterogeneous as it differs in fertility.

9. Land has alternative uses.
10. Land is subject to Law of Diminishing Returns.

29. What are the factors governing elasticity of supply?

1. Nature of the commodity

- Durable goods can be stored for a long time. So, the producers can wait until they get a high price

2. Cost of production

- When production is subject to either constant or increasing returns, additional production and therefore increased supply is possible.

3. Technical condition

- In large scale production with huge capital investment, supply cannot be adjusted easily.

4. Time factor

- During very short period when supply cannot be adjusted, elasticity of demand is very low.

30. What are the functions of Entrepreneur?

1. Initiation:

- An organizer is the initiator of the business, by considering the situation and availability of resources and planning the entire process of business or production.

2. Innovation:

- A successful entrepreneur is always an innovator.
- He introduces new methods in the production process.

3. Coordination:

- An organizer applies a particular combination of the factors of production to start and run the business or production.

4. Control, Direction and Supervision:

- An organiser controls so that nothing prevents the organisation from achieving its goal

5. Risk-taking and Uncertainty-bearing:

- There are risk-taking and uncertainty-bearing obstacles.

31. State and explain the elasticity of supply.

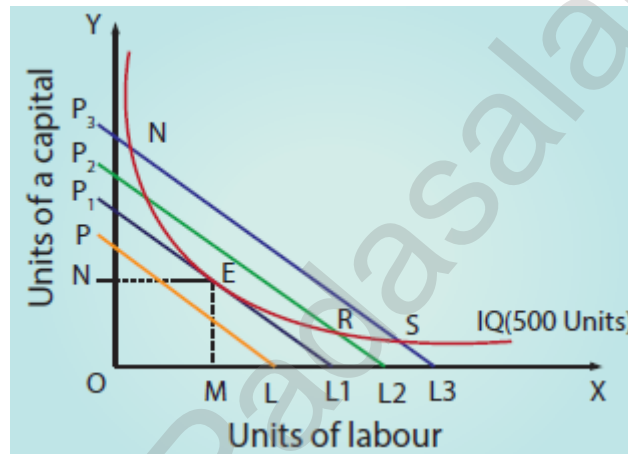
- Elasticity of supply may be defined as the degree of responsiveness of change in supply to change in price on the part of sellers.
- It is mathematically expressed as:
- Elasticity of supply = proportionate change in supply / proportionate change in price
- $e_s = (\Delta Q_s / Q_s) / (\Delta P / P)$; $e_s = \Delta Q_s / \Delta P \times P / Q_s$
- Where Q_s represents the supply, P represents price, Δ denotes a change.

32. Bring out the Relationship among Total, Average and Marginal Products.

Stages	Total Product	Marginal Product	Average Product
Stage I	Initially it increases at an increasing rate and then increases at a decreasing rate	At the beginning it increases, then reaches a maximum and starts to decrease	At the first instant it increases, then attains maximum
Stage II	It continues to increase at a diminishing rate and reaches maximum.	It continues to diminish and becomes equal to zero	It is equal to MP and then begins to diminish
Stage III	It diminishes	It becomes negative	It continues to diminish but always greater than zero (positive)

33. Illustrate the concept of Producer's Equilibrium.

- Producer equilibrium implies the situation where producer maximizes his output. It is also known as optimum combination of the factors of production
- Optimum Combination of Factors implies either there is output maximisation for given inputs or there is cost minimisation for the given output.



- In the above figure, profit of the firm (or the producer) is maximised at the point of equilibrium E.
- At the point of equilibrium, the slope of the iso cost line is equal to the slope of iso product curve

MRTS PPL KL

34. State the Cobb-Douglas Production Function.

- Cobb-Douglas Production Function is a specific standard equation applied to describe how much output can be made with capital and labour inputs.
- The Cobb-Douglas production function can be expressed as follows.
- $Q = AL^\alpha K^\beta$
- Where, Q = output; A = positive constant; K = capital; L = Labor α and β are positive fractions showing, the elasticity coefficients of outputs for the inputs labor and capital, respectively.
- $(\alpha + \beta) = 1$, constant returns to scale.
- $(\alpha + \beta) < 1$, diminishing returns to scale.

- $(\alpha + \beta) > 1$, increasing returns to scale.

Part D 5 MARKS

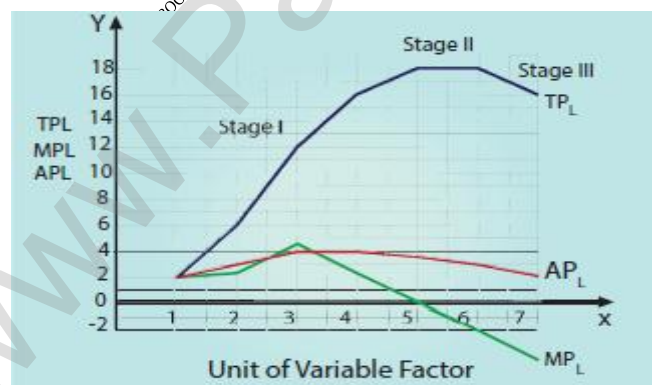
35. Examine the Law of Variable Proportions with the help of a diagram.

- The law states that if all other factors are fixed and one input is varied in the short run, the total output will increase at an increasing rate at first instance, be constant at a point and then eventually decrease.
- According to G.Stigler, "As equal increments of one input are added, the inputs of other productive services being held constant, beyond a certain point, the resulting increments of product will decrease, i.e., the marginal product will diminish".

Assumptions

1. Only one factor is variable while others are held constant.
2. All units of the variable factor are homogeneous.
3. The product is measured in physical units.
4. There is no change in the state of technology.
5. There is no change in the price of the product

Units of variable factor (L)	Total Product (TP _L)	Marginal Product (MP _L)	Average Product (AP _L)	Stages
1	2	2	2	I
2	6	4	3	
3	12	6	4	
4	16	4	4	II
5	18	2	3.6	
6	18	0	3	III
7	16	-2	2.28	



Stage I

- In the first stage MPL increases up to third labourer and it is higher than the average product, so that total product is increasing at an increasing rate.
- The tendency of total product to increase at an increasing rate stops at the point A and it begins to increase at a decreasing rate.
- This point is known as 'Point of Inflexion'.

Stage II

- In the second stage, MPL decreases up to sixth unit of labour where MPL curve intersects the X-axis. At fourth unit of labor $MPL = APL$. After this, MPL curve is lower than the APL. TPL increases at a decreasing rate.

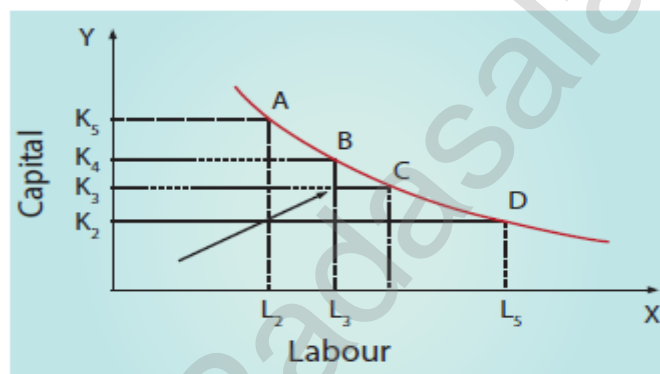
Stage III

- Third stage of production shows that the sixth unit of labour is marked by negative MPL, the APL continues to fall but remains positive.
- After the sixth unit, TPL declines with the employment of more units of variable factor, labour.

36. List out the properties of iso-quants with the help of diagrams.

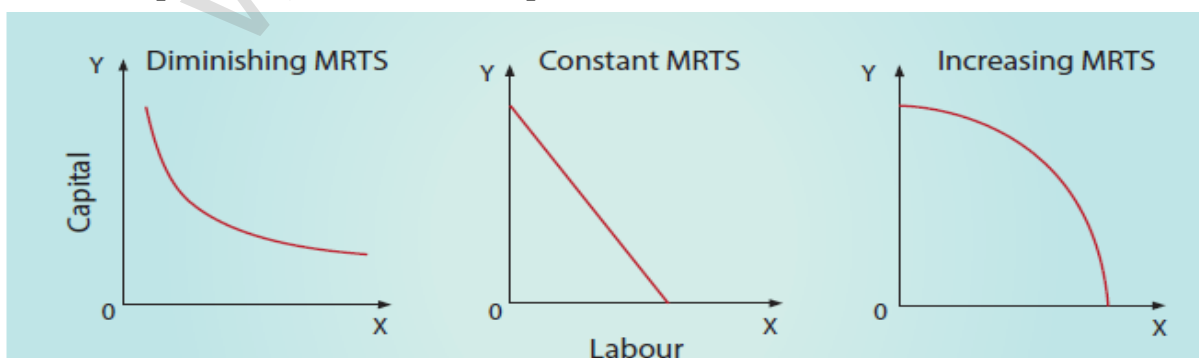
1. The iso-quant curve has negative slope.

- It slopes downwards from left to right indicating that the factors are substitutable.
- If more of one factor is used, less of the other factor is needed for producing the same level of output.
- In the diagram combination A refers to more of capital K_5 and less of labour L_2 .
- As the producer moves to B, C, and D, more labour and less capital are used.



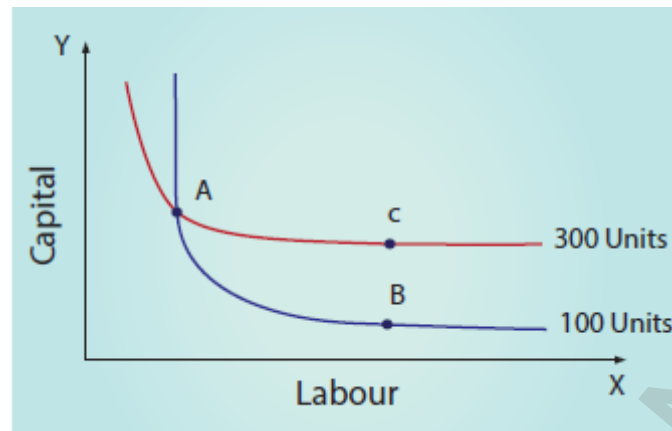
2. Convex to the origin.

- This explains the concept of diminishing Marginal Rate of Technical Substitution (MRTSLK).
- For example, the capital substituted by 1 unit of labour goes on decreasing when moved from top to bottom.
- If so, it is called diminishing MRTS. Constant MRTS (straight line) and increasing MRTS (concave) are also possible.
- It depends on the nature of iso-quant curve.



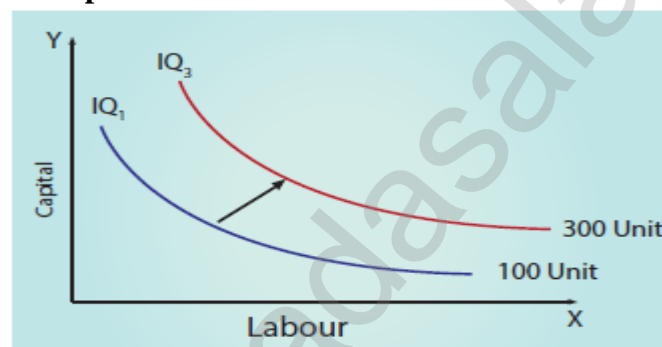
3. Non inter-section of Iso-quant curves.

- For instance, point A lie on the iso-quants IQ1 and IQ2. But the point C shows a higher output and the point B shows a lower level of output IQ1. If $C=A$, $B=A$, then $C=B$. But $C>B$ which is illogical.



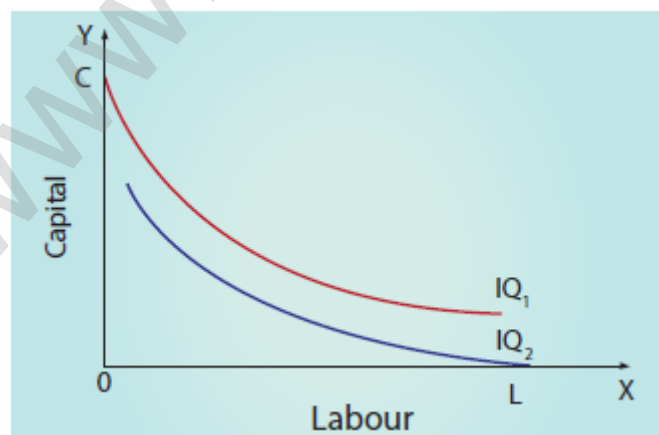
4. An upper iso-quant curve represents a higher level of output.

- Higher IQs show higher outputs and lower IQs show lower outputs, for upper iso-quant curve implies the use of more factors than the lower isoquant curve.



5. Iso-quant curve does not touch either X axis or Y axis.

- No iso-quant curve touches the X axis or Y axis because in IQ1, only capital is used, and in IQ2 only labour is used.



37. Elucidate the Laws of Returns to Scale. Illustrate.

- In the long-run, there is no fixed factor; all factors are variable.

- The laws of returns to scale explain the relationship between output and the scale of inputs in the long-run when all the inputs are increased in the same proportion.

Assumptions

All the factors of production (such as land, labour and capital) are variable but organization is fixed.

1. There is no change in technology.
2. There is perfect competition in the market.
3. Outputs or returns are measured in physical quantities

Three Phases of Returns to Scale

(1) Increasing Returns to Scale:

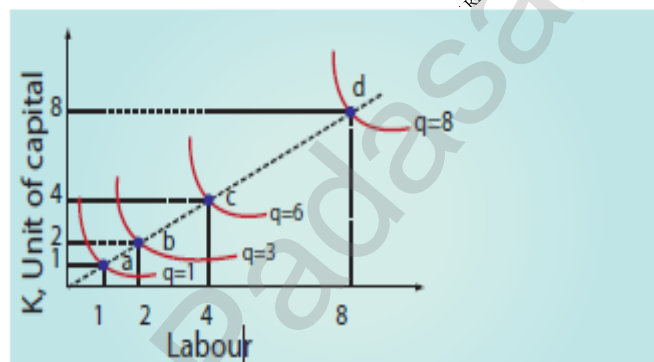
- In this case if all inputs are increased by one per cent, output increase by more than one per cent.

(2) Constant Returns to Scale:

- In this case if all inputs are increased by one per cent, output increases exactly by one per cent.

(3) Diminishing Returns to Scale:

- In this case if all inputs are increased by one per cent, output increases by less than one per cent.



- The movement from point a to point b represents increasing returns to scale.
- Because, between these two points output has doubled, but output has tripled.
- The law of constant returns to scale is implied by the movement from the point b to point c.
- Because, between these two points inputs have doubled and output also has doubled.
- Decreasing returns to scale are denoted by the movement from the point c to point d since doubling the factors from 4 units to 8 units produce less than the increase in inputs.

38. Explain the internal and external economies of scale.

Economies are broadly divided into two types by Marshall.

1. Internal Economies
2. External Economies

Internal Economies of Scale

- The term Internal Economies of Scale refers to the advantages enjoyed by the production unit which causes a reduction in the cost of production of the commodity.

Internal Economies are of various types

- Technical Economies
- Financial Economies
- Managerial Economies
- Labour Economies
- Marketing Economies
- Economies of Survival

External Economies of Scale

- External Economies of Scale refer to changes in any factor outside the firm causing an improvement in the production process.

1. Increased transport facilities
2. Banking facilities
3. Development of townships
4. Development of information and communication

4.COST AND REVENUE ANALYSIS

TWO MARKS QUESTIONS AND ANSWERS

21. Define cost.

- Cost refers to the total expenses incurred in the production of a commodity

22. Define cost function.

- The functional relationship between cost and output is expressed as 'Cost Function'.
- $C = f(Q)$

23. What do you mean by fixed cost?

- Fixed Cost does not change with the change in the quantity of output.
- In other words, expenses on fixed factors remain unchanged irrespective of the level of output, whether the output is increased or decreased.

24. Define Revenue.

- The amount of money that a producer receives in exchange for the sale of goods is known as revenue.
- In short, revenue means sales revenue.

25. Explicit Cost - Define

- Payment made to others for the purchase of factors of production is known as Explicit Costs..

26. Give the definition for 'Real Cost'.

- Real cost refers to the payment made to compensate the efforts and sacrifices of all factor owners for their services in production.

27. What is meant by Sunk cost?

- A cost incurred in the past and cannot be recovered in future is called as Sunk Cost.

PART C 3 MARKS

28. Distinguish between fixed cost and variable cost.

Fixed Costs	Variable Costs
1. These costs are independent of output.	1. These costs vary with the level of output.
2. These are the costs of fixed factors.	2. These are the costs of variable factors.
3. These costs exist or arise, even at zero level of output.	3. These costs become zero at zero level of output.
4. These costs are found only in the short period.	4. These costs are seen in short and long periods.
5. These are the supplementary costs.	5. These are called as prime costs.

29. State the differences between money cost and real cost.

Money Cost

- Production cost expressed in money terms is called as money cost.
- In other words, it is the total money expenses incurred by a firm in producing a commodity.
- Money cost includes the expenditures such as cost of raw materials, payment of wages and salaries.

Real Cost

- Real cost refers to the payment made to compensate the efforts and sacrifices of all factor owners for their services in production.
- It includes the efforts and sacrifices of landlords in the use of land.

30. Distinguish between explicit cost and implicit cost.

Explicit Cost

- Payment made to others for the purchase of factors of production is known as Explicit Costs.
- It refers to the actual expenditures of the firm to purchase or hire the inputs the firm needs. Explicit cost includes, i) wages, ii) payment for raw material.

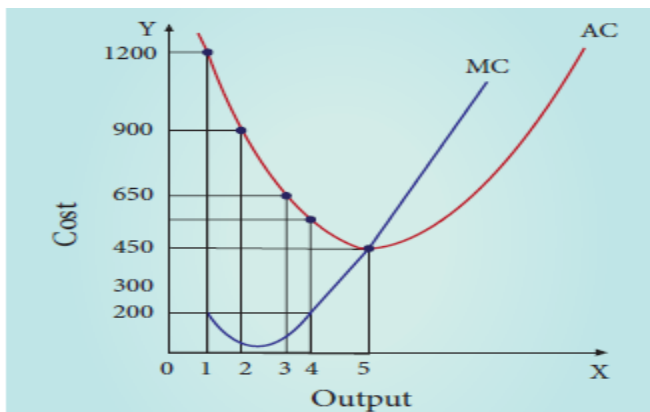
Implicit Cost

- Payment made to the use of resources that the firm already owns, is known as Implicit Cost.
- In simple terms, Implicit Cost refers to the imputed cost of a firm's self-owned and self-employed resources.
- A firm or producer may use his own land, building, machinery, car and other factors in the process of production.

31. Define opportunity cost and provide an example.

- It refers to the cost of next best alternative use.
- In other words, it is the value of the next best alternative foregone.
- For example, a farmer can cultivate both paddy and sugarcane in a farm land.
- If he cultivates paddy, the opportunity cost of paddy output is the amount of sugarcane output given up.

32. State the relationship between AC and MC.



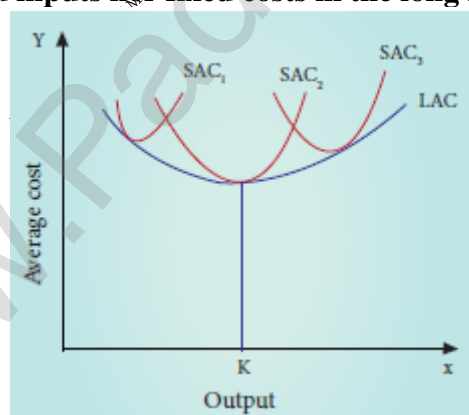
1. When AC is falling, MC lies below AC.
2. When AC becomes constant, MC also becomes equal to it.
3. When AC starts increasing, MC lies above the AC.
4. MC curve always cuts AC at its minimum point from below.

33. Write a short note on Marginal Revenue.

- The total revenue by the sale of an additional unit of a commodity.
- MR can be found out by dividing change in total revenue by the change in quantity sold out. $MR = \Delta TR / \Delta Q$ where MR denotes Marginal Revenue, ΔTR denotes change in Total Revenue and ΔQ denotes change in total quantity.
- $MR = TR_n - TR_{n-1}$ (or) $TR_{n+1} - TR_n$

34. Discuss the Long run cost curves with suitable diagram.

- In the long run all factors of production become variable.
- The existing size of the firm can be increased in the case of long run.
- There are neither fixed inputs nor fixed costs in the long run.



- $LAC = LTC/Q$ where, LAC denotes Long-Run Average Cost, LTC denotes Long-run Total Cost and Q denotes the quantity of output.
- The LAC curve is derived from short- run average cost curves.
- It is the locus of points denoting the least cost curve of producing the corresponding output.
- The LAC curve is called as 'Plant Curve' or 'Boat shape Curve' or 'Planning Curve' or 'Envelop Curve'

Part-D 5 MARKS

35. Discuss the short run cost curves with suitable diagram.

Total Fixed Cost (TFC)

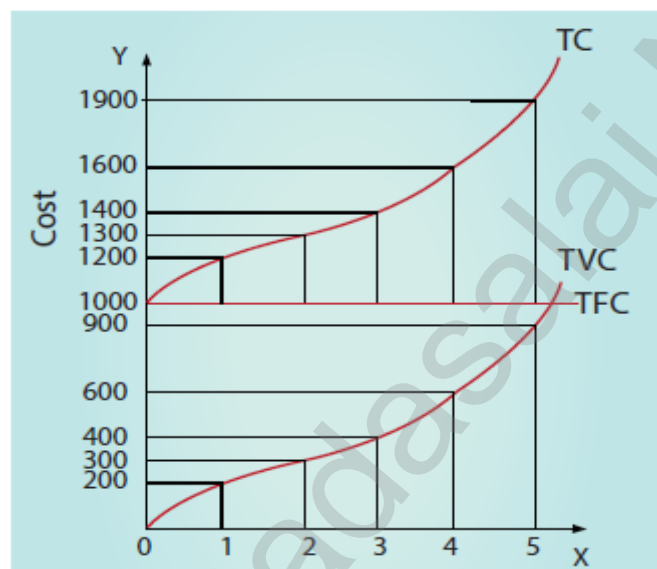
- All payments for the fixed factors of production are known as Total Fixed Cost.
- It could be observed that TFC does not change with output.

Total Variable Cost (TVC)

- All payments to the variable factors of production is called as Total Variable Cost.

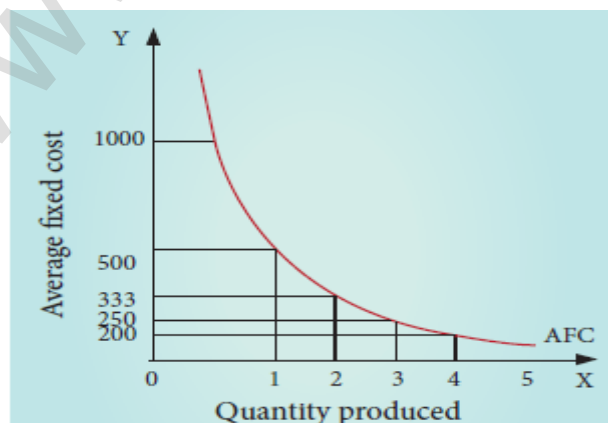
Total Cost

- Total Cost means the sum total of all payments made in the production. It is also called as Total Cost of Production.



Average Fixed Cost (AFC)

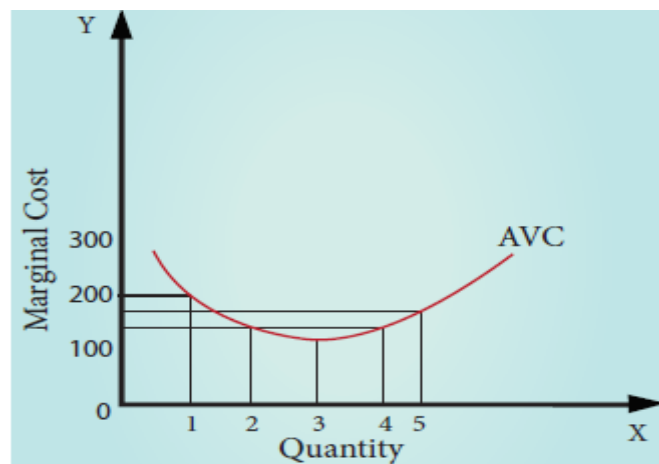
- It refers to the fixed cost per unit of output. It is obtained by dividing the total fixed cost by the quantity of output. $AFC = TFC / Q$ where, AFC denotes average fixed cost



Average Variable Cost (AVC)

- It refers to the total variable cost per unit of output.

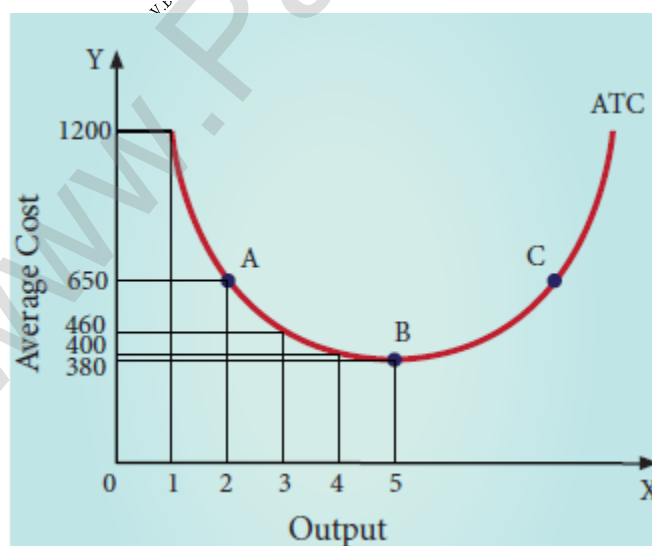
- It is obtained by dividing total variable cost (TVC) by the quantity of output.



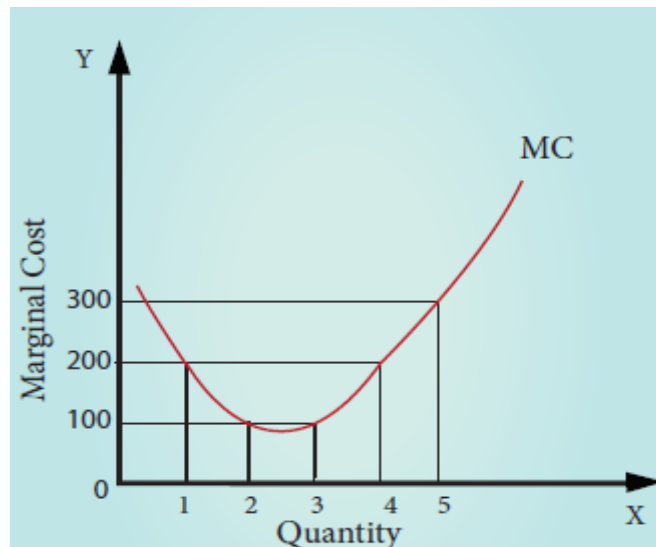
Average Cost (AC)

- It refers to the total cost per unit of output.

Q (in unit)	TFC (in ₹)	TVC (in ₹)	TC (in ₹) TFC +TVC	ATC (TC/Q) (in ₹)	AFC (in ₹)	AVC (in ₹)	ATC (AFC +AVC) (in ₹)
0	1000	0	1000	$1000 / 0 = \infty$	0	0	$0 + 0 = 0$
1	1000	200	1200	$1200 / 1 = 1200$	1000	200	$1000 + 200 = 1200$
2	1000	300	1300	$1300 / 2 = 650$	500	150	$500 + 150 = 650$
3	1000	400	1400	$1400 / 3 = 466$	333	133	$333 + 133 = 466$
4	1000	600	1600	$1600 / 4 = 400$	250	150	$250 + 150 = 400$
5	1000	900	1900	$1900 / 5 = 380$	200	180	$200 + 180 = 380$



- Marginal cost is the cost of the last single unit produced.
- It is defined as the change in total costs resulting from producing one extra unit of output.

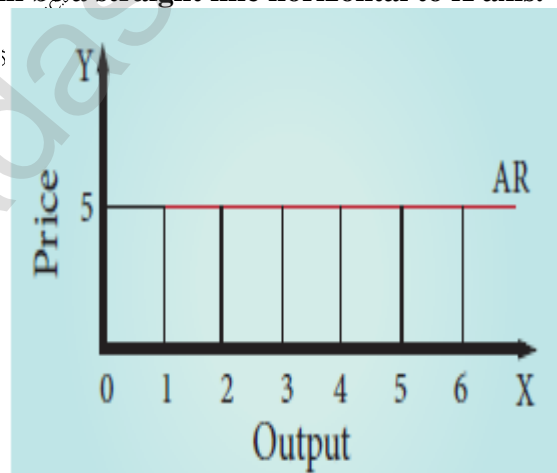


36. Bring out the relationship between AR and MR curves under various price conditions.

Constant AR and MR (at Fixed Price)

- When price remains constant or fixed, the MR will be also constant and will coincide with AR. Under perfect competition as the price is uniform and fixed, AR is equal to MR and their shape will be a straight line horizontal to X axis.

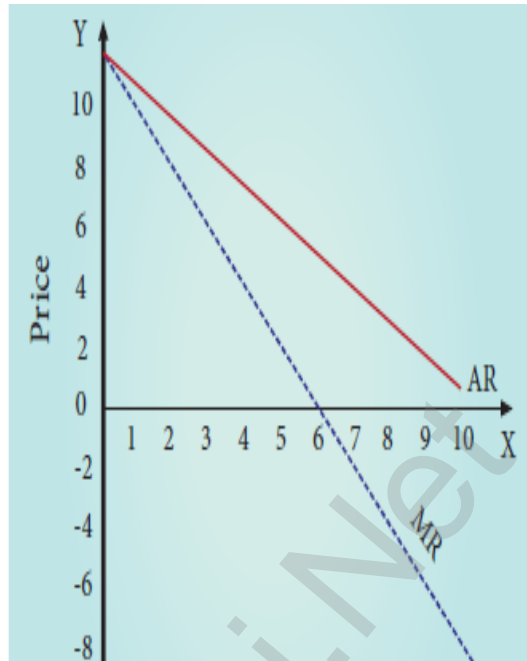
Quantity Sold (Q)	Price (P) ₹	Total Revenue (TR) ₹	Average Revenue (AR) ₹	Marginal Revenue (MR) ₹
1	5	5	5	5
2	5	10	5	5
3	5	15	5	5
4	5	20	5	5
5	5	25	5	5
6	5	30	5	5



Declining AR and MR (at Declining Price)

- When a firm sells large quantities at lower prices both AR and MR will fall but the fall in MR will be more steeper than the fall in the AR.
- It is to be noted that MR will be lower than AR.
- Both AR and MR will be sloping downwards straight from left to right.
- The MR curve divides the distance between AR Curve and Y axis into two equal parts.
- The decline in AR need not be a straight line or linear.
- If the prices are declining with the increase in quantity sold, the AR can be non-linear, taking a shape of concave or convex to the origin.

Quantity Sold (Q)	Price (P)/ Average Revenue (AR) ₹	Total Revenue (TR) ₹	Marginal Revenue (MR) ₹
1	10	10	-
2	9	18	8
3	8	24	6
4	7	28	4
5	6	30	2
6	5	30	0
7	4	28	-2
8	3	24	-4
9	2	18	-6
10	1	10	-8



5. MARKET STRUCTURE AND PRICING

TWO MARKS QUESTIONS AND ANSWERS

21. Define Market.

- In Economics, the term 'market' refers to a system of exchange between the buyers and the sellers of a commodity.

22. Who is price-taker?

- A firm under perfect competition even in the long run is a price – taker, not a price – maker. It takes the price of the product from the industry.

23. Point out the essential features of pure competition.

1. Large Number of Buyers and Sellers

2. Free Entry and Exit

3. Absence Of Transport Cost

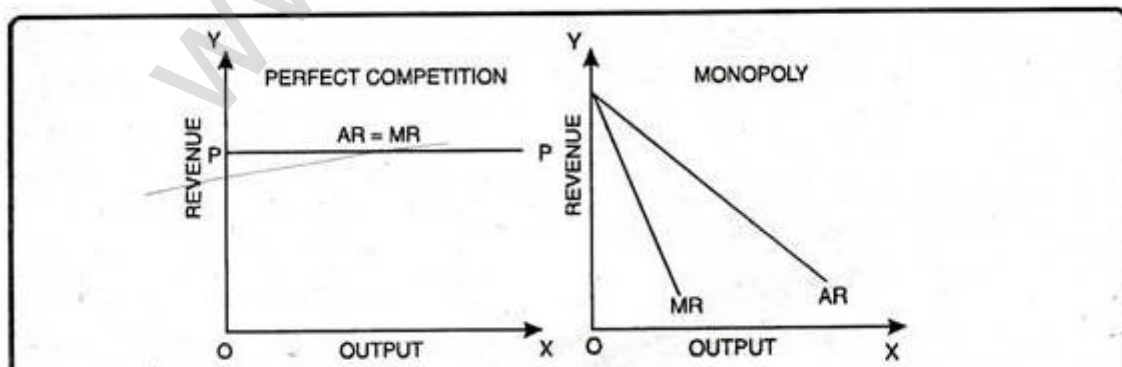
24. What is selling cost?

- Firms compete with each other by incurring selling cost or expenditure on sales promotion of their products.

25. Draw demand curve of a firm for the following:

a) Perfect Competition

b) Monopoly



26. Mention any two types of price discrimination

- A discriminating monopoly is a single entity that charges different prices for different consumers. Higher price will be charged for price inelastic consumers and vice versa

27. Define “Excess capacity”.

- “Excess capacity (Unutilized capacity) is the difference between the optimum output that can be produced and the actual output produced by the firm.

PART C 3 MARKS

28. What are the features of a market?

1. Buyers and sellers of a commodity or a service
2. A commodity to be bought and sold
3. Price agreeable to buyer and seller
4. Direct or indirect exchange.

29. Specify the nature of entry of competitors in perfect competition and monopoly.

- In the short run, it is possible for the very efficient producer, producing the product at a very low cost, to earn super normal profits.
- Attracted by such a profit, new firms enter into the industry.
- An inefficient producer, who is unable to bring down the cost incurs loss.
- Disturbed by the loss, the existing loss-incurring firms quit the market.
- There is strict barrier for entry of any new firm in monopoly

30. Describe the degrees of price discrimination.

(i) First degree price discrimination

- A monopolist charges the maximum price that a buyer is willing to pay.
- This is called as perfect price discrimination.
- This price wipes out the entire consumer's surplus.

(ii) Second degree price discrimination

- Under this degree, buyers are charged prices in such a way that a part of their consumer's surplus is taken away by the sellers.
- This is called as imperfect price discrimination

(iii) Third degree price discrimination

- The monopolist splits the entire market into a few sub-market and charges different price in each sub-market.

31. State the meaning of selling cost with an example.

- The producer under monopolistic competition has to incur expenses to popularize his brand.
- This expenditure involved in selling the product is called selling cost.
- Most important form of selling cost is advertisement.
- Sales promotion by advertisement is called non-price competition.

32. Mention the similarities between perfect competition and monopolistic competition.

- (1) The number of firms is large both under perfect competition and monopolistic competition.
- (2) In both, firms compete with each other.
- (3) In both, there is freedom of entry or exit of firms.
- (4) In both, the equilibrium is established at the point of equality of marginal cost and marginal revenue.
- (5) In both the market situations, firms can earn super-normal profits or incur losses in the short-run. But in the long-run, firms earn only normal profit.

33. Differentiate between 'firm' and 'industry'.

Firm:

- A firm refers to a single production unit in an industry, producing a large or a small quantum of a commodity or service, and selling it at a price in the market.
- Its main objective is to earn a profit.
- There may be other objectives as described by managerial and behavioral theories of the firm.

Industry:

- An industry refers to a group of firms producing the same product or service in an economy.
- For example, a group of firms producing cement is called a cement industry.

34. State the features of duopoly.

1. Each seller is fully aware of his rival's motive and actions.
2. Both sellers may collude (they agree on all matters regarding the sale of the commodity).
3. They may enter into cut-throat competition.
4. There is no product differentiation.
5. They fix the price for their product with a view to maximising their profit.

Part-D 5 marks

35. Bring out the features of perfect competition.

a. Large Number of Buyers and Sellers

- 'A large number of buyers' implies that each individual buyer buys a very, very small quantum of a product as compared to that found in the market.
- This means that he (he includes she also) has no power to fix the price of the product. He is only a price-taker and not a price-maker.

b. Homogeneous Product and Uniform Price

- The product sold and bought is homogeneous in nature, in the sense that the units of the product are perfectly substitutable.
- All the units of the product are identical (ie) of the same size, shape, colour, quality etc. Therefore, a uniform price prevails in the market.

c. Free Entry and Exit

- In the short run, it is possible for the very efficient producer, producing the product at a very low cost, to earn super normal profits.
- Attracted by such a profit, new firms enter into the industry.
- When large number of firms enter, the supply (in comparison to demand) would increase, resulting in lower price.

d. Absence Of Transport Cost

- The prevalence of the uniform price is also due to the absence of the transport cost.

e. Perfect Mobility of Factors of Production

- The prevalence of the uniform price is also due to the perfect mobility of the factors of production.

f. Perfect Knowledge of the Market

- All buyers and sellers have a thorough knowledge of the quality of the product, prevailing price etc.

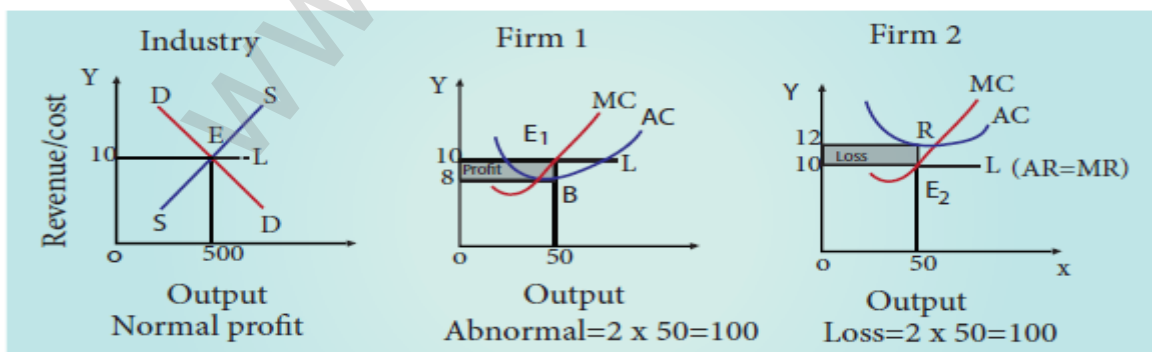
g. No Government Intervention

- There is no government regulation on supply of raw materials, and in the determination of price etc.

36. How price and output are determined under the perfect competition?

- In the short run, at least a few factors of production are fixed.
- The firms under Perfect Competition take the price (10) from the industry and start adjusting their quantities produced.
- For example $Q_d = 100 - 5P$ and $Q_s = 5P$. At equilibrium $Q_d = Q_s$.
- Therefore $100 - 5P = 5P$
- $100 = 10P$; $100/10 = P$ $Q_d = \text{demand}$
- $P = 10$ $P = \text{Price}$
- $Q_d = 100 - 5(10)$ $Q_s = \text{Supply}$
- $100 - 50 = 50$
- $Q_s = 5(10) = 50$
- Therefore $50 = 50$

Price & Output Determination-Perfect Competition during Short Run

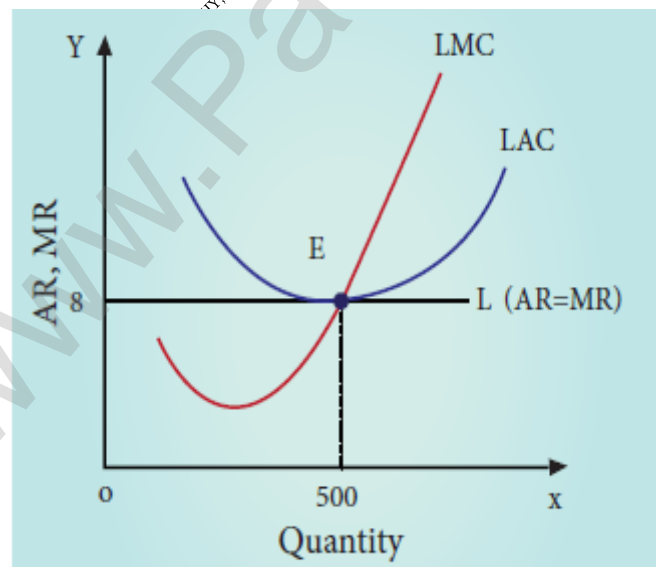


- This diagram consists of three panels.
- The equilibrium of an industry is explained in the first panel.

- The demand and supply forces of all the firms interact and the price is fixed as 10.
- The equilibrium of an industry is obtained at 50 units of output.
- In the second part of the diagram, AC curve is lower than the price line.
- The equilibrium condition is achieved where $MC=MR$. Its equilibrium quantity sold is 50.
- With the prevailing price, 10 it experiences super normal profit. $AC = 8$, $AR = 10$.
- Its total revenue is $50 \times 10 = 500$. Its total cost is $50 \times 8 = 400$.
- Therefore, its total profit is $500 - 400 = 100$.
- In the third part of the diagram, firm's cost curve is above the price line.
- The equilibrium condition is achieved at point where $MR=MC$.
- Its quantity sold is 50.
- With the prevailing price, it experiences loss. ($AC > AR$)
- Its total revenue is $50 \times 10 = 500$. Its total cost is $50 \times 12 = 600$.
- Therefore, its total loss is $600 - 500 = 100$.
- As profit prevails in the market, new firms will enter the industry, thus increasing the supply of the product.
- This means a decline in the price of the product and increase the cost of production.
- Thus, the abnormal profit will be wiped out; loss will be incurred.

Perfect Competition: Firm's Equilibrium in the Long Run (Normal Profit)

- In the long run, all the factors are variable.
- The LAC curve is an envelope curve as it contains a few average cost curves. It is a flatter U shaped one.



37. Describe the features oligopoly.

1. Few large firms

- Very few big firms own the major control of the whole market by producing major portion of the market demand.

2. Interdependence among firms

- The price and quality decisions of a particular firm are dependent on the price and quality decisions of the rival firms.

3. Group behaviour

- The firms under oligopoly realise the importance of mutual co-operation.

4. Advertisement cost

- The oligopolist could raise sales either by advertising or improving the quality of the product.

5. Nature of product

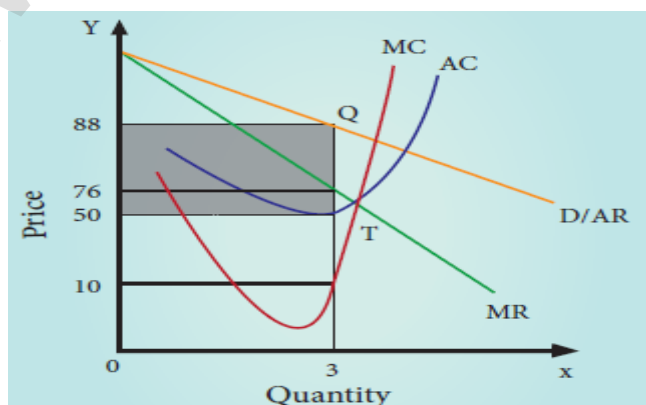
- Perfect oligopoly means homogeneous products and imperfect oligopoly deals with heterogeneous products.

6. Price rigidity

- It implies that prices are difficult to be changed.
- The oligopolistic firms do not change their prices due to the fear of rivals' reaction.

38. Illustrate price and output determination under Monopoly.

- A monopoly is a one firm-industry.
- Therefore, a firm under monopoly faces a downward sloping demand curve (or AR curve).
- Since, under monopoly AR falls, as more units of output are sold, the MR lies below the AR curve ($MR < AR$).
- The monopolist will continue to sell his product as long as his $MR > MC$.
- He attains equilibrium at the level of output when its MC is equal to MR.
- Beyond this point, the producer will experience loss and hence will stop selling.
- Let us take the following hypothetical example of Total Revenue Function and Total cost function.
- $TR = 100Q - 4Q^2$ and $TC = Q^3 - 18Q^2 + 91Q + 12$.
- Therefore $AR = 100 - 4Q$; $MR = 100 - 8Q$; $AC = Q^2 - 18Q + 91 + 12/Q$;
- $MC = 3Q^2 - 36Q + 91$;
- When $Q = 3$,
- $AR = 100 - 4(3) = 88$,
- $AC = 32 - 18(3) + 91 + 12/3 = 9 - 54 + 91 + 4 = 50$;
- $MR = 100 - 8(3) = 76$;
- $MC = 3(3)^2 - 36(3) + 91 = 27 - 108 + 91 = 10$



- From this diagram, till he sells 3 units output, MR is greater than MC, and when he exceeds this output level, MR is less than MC.
- The monopoly firm will be in equilibrium at the level of output where MR is equal to MC. The price is 88.
- To checkup how much profit the monopolist is making at the equilibrium output, the average revenue curves and the average cost curves are used.
- At equilibrium level of output is 3; the average revenue is 88 and the average cost is 50.
- Therefore $(88-50=38)$ is the profit per unit.
- Total profit = (Average Revenue – Average Cost) X Total output
- $= (88 - 50) \times 3 = 38 \times 3 = 114$

6.DISTRIBUTION ANALYSIS

2 MARKS

21. What is meant by distribution?

- Distribution means division of income among the four factors of production in terms of rent to landlords, wage to labourer, interest to capital and profit to entrepreneurs.

22. Mention the types of distribution.

- Personal Distribution
- Functional Distribution

23. Define 'Rent'.

- "Economic Rent" refers to that part of payment made by a tenant to his landlords for the use of land only.

24. Distinguish between real and money wages.

- Nominal wages are referred to the wages paid in terms of money.
- Real wages are the wages paid in terms of goods and services. Hence, real wages are the purchasing power of money wages.

25. What do you mean by interest?

- Interest is the reward paid by the borrower to the lender for the use of capital.

26. What is profit?

- Profit is a return to the entrepreneur for the use of his entrepreneurial ability. It is the net income of the organizer.

27. State the meaning of liquidity preference.

- Liquidity preference means the preference of the people to hold wealth in the form of liquid cash rather than in other non- liquid assets like bonds, securities, bills of exchange, land, building, gold etc.

3 MARKS

28. What are the motives of demand for money?

1. The Transaction Motive

- The transaction motive relates to the desire of the people to hold cash for the current transactions.

2. The Precautionary Motive

- The precautionary motive relates to the desire of the people to hold cash to meet unexpected or unforeseen expenditures such as sickness, accidents, fire and theft.

3. The Speculative Motive

- The speculative motive relates to the desire of the people to hold cash in order to take advantage of market movements regarding the future changes in the price of bonds and securities in the capital market.

29. List out the kinds of wages.

1. Nominal Wages or Money Wages.

- Nominal wages are referred to the wages paid in terms of money.

2. Real Wages

- Real wages are the wages paid in terms of goods and services.
- Hence, real wages are the purchasing power of money wages.

3. Piece Wages

- Wages that are paid on the basis of quantum of work done.

4. Time Wages

- Wages that are paid on the basis of the amount of time that the worker works.

30. Distinguish between rent and quasi-rent.

- Rent is a payment for natural gifts of nature like land.
- Quasi rent is a payment for man made appliances like machines.
- Rent is permanent in nature while quasi rent is a temporary phenomenon.

31. Briefly explain the Subsistence Theory of Wages.

- Subsistence theory is one of the oldest theories of wages.
- It was first explained by Physiocrats, a group of French economists and restated by Ricardo.
- According to this theory, wage must be equal to the subsistence level of the labourer and his family.
- Subsistence means the minimum amount of food, clothing and shelter which workers and their family require for existence.

- If workers are paid higher wages than the subsistence level, the workers would be better off and they will have large families.
- Hence, the population would increase.
- When the population increases, the supply of labourer would increase and therefore, wages will come down.
- This theory is closely associated with Malthusian Theory of Population.

Criticisms

- 1. Role of trade unions in collective bargainings was not found.
- 2. It does not explain the differences in wages in different occupations.
- 3. The assumption that population would increase with a rise in wage rate is not correct.

32. State the Dynamic Theory of Profit.

- This theory was propounded by the American economist J.B.Clark in 1900.
- To him, profit is the difference between price and cost of production of the commodity.
- Hence, profit is the reward for dynamic changes in society
- At present several changes are taking place in a dynamic society.
- Changes are permanent. According to Clark, the following five main changes are taking place in a dynamic society.

1. Population is increasing
2. Volume of Capital is increasing.
3. Methods of production are improving.
4. Forms of industrial organization are changing.
5. The wants of consumer are multiplying.

33. Describe briefly the Innovation Theory of Profit.

- Innovation theory of profit was propounded by Joesph. A.Schumpeter.
- To Schumpeter, an entrepreneur is not only an undertaker of a business, but also an innovator in the process of production. To him, profit is the reward for “innovation”
- Innovation means invention put into commercial practice.
- According to Schumpeter, an innovation may consist of the following:
 1. Introduction of a new product.
 2. Introduction of a new method of production.
 3. Opening up of a new market.
 4. Discovery of new raw materials
 5. Reorganization of an industry / firm.

34. Write a note on Risk-bearing Theory of Profit.

- Risk bearing theory of profit was propounded by the American economist F.B.Hawley in 1907.
- According to him, profit is the reward for “risk taking” in business.
- Risk taking is an essential function of the entrepreneur and is the basis of profit. It is a well known fact that every business involves some risks.
- Since the entrepreneur undertakes the risks, he receives profits.
- If the entrepreneur does not receive the reward, he will not be prepared to undertake the risks.
- Thus, higher the risks, the greater are the profit.
- It is the profit that induces the entrepreneurs to undertake such risks.

5 MARKS

35. Explain the Marginal Productivity Theory of Distribution.

- Marginal Productivity Theory of distribution was developed by Clark, Wickseed and Walras.
 - This theory explains how the prices of various factors of production are determined.
 - This theory explains how rent, wages, interest and profit are determined.
- Assumptions**
- 1. All the factors of production are homogenous.
 - 2. Factors of production can be substituted for each other.
 - 3. There is perfect competition both in the factor market and product market.
 - 4. There is perfect mobility of factors of production.
 - 5. There is full employment of factors.

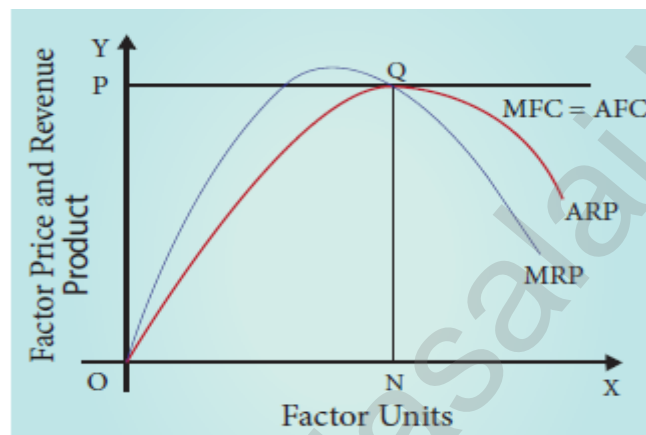
Explanation of the Theory

- According to the Marginal Productivity Theory of Distribution, the price or the reward for any factor of production is equal to the marginal productivity of that factor.
- The Marginal Product may be expressed as MPP, VMP and MRP.
 1. Marginal Physical Product (MPP)
- The Marginal Physical Product of a factor is the increment in the total product obtained by the employment of an additional unit of that factor.
 2. Value of Marginal Product (VMP)
- The Value of Marginal Product is obtained by multiplying the Marginal Physical Product of the factor by the price of product.
- Symbolically $VMP = MPP \times \text{Price}$
- 3. Marginal Revenue Product (MRP)

- The Marginal Revenue Product of a factor is the increment in the total revenue which is obtained by the employment of an additional unit of that factor.
- $MRP = MPP \times MR$

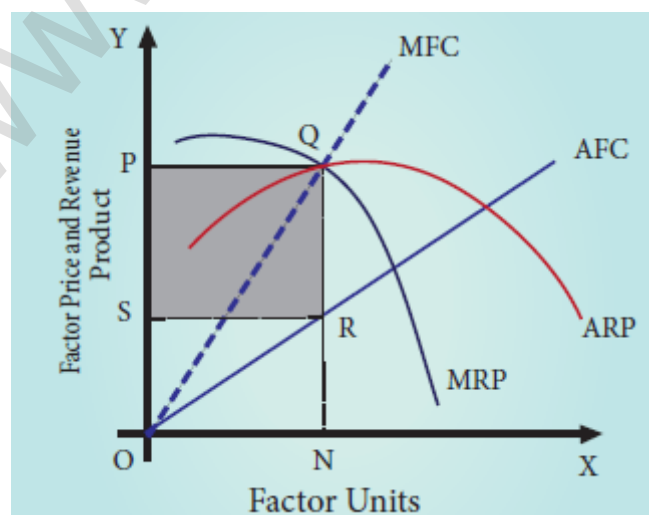
The Marginal Productivity Theory of Distribution states that

- a) The price of a factor of production depends upon its productivity.
- b) The price of a factor is determined by and will be equal to marginal revenue product of that factor.
- c) Under certain conditions, the price of a factor will be equal to both the average and marginal products of that factor.



- The diagram refers to the factor pricing under perfect competition in the factor market. X axis represents factor units and Y axis represents the factor price and revenue product.
- MRP is the Marginal Revenue Product Curve and ARP is the Average Revenue Product curve. AFC is the Average Factor Cost curve and MFC is the Marginal Factor Cost curve.
- AFC is horizontal under perfect competition and MFC coincides with it.

Marginal Productivity Theory under Imperfect Competition



- In the above diagram the factor pricing under imperfect competition is represented.
- AFC is Average Factor Cost curve. It represents the price paid to the factors.
- It increases as the number of factors demanded by the employer increases.
- As AFC rises, MFC lies above AFC.
- It represents the marginal cost paid to the factors.
- At the point Q, $MFC = MRP$, where the employer attains his maximum profit and so he stops employment of the factors at the point.

Criticisms

1. In reality, the factors of production are not homogenous.
2. In practice, factors cannot be substituted for each other.
3. This theory is applicable only in the long-run. It cannot be applied in the short-run.

36. Illustrate the Ricardian Theory of Rent.

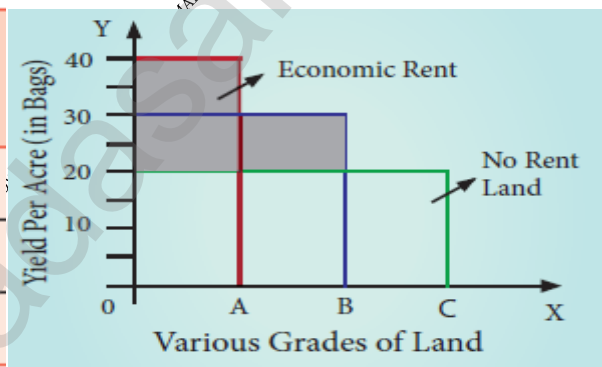
- The Classical Theory of Rent is called “Ricardian Theory of Rent”.
 - “Rent is that portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible powers of the soil”.
1. Land differs in fertility.
 2. The law of diminishing returns operates in agriculture.
 3. Rent depends upon fertility and location of land.
 4. Theory assumes perfect competition.
 5. It is based on the assumption of long period.
 6. There is existence of marginal land or no-rent land.
 7. Land has certain “original and indestructible powers”.
 8. Land is used for cultivation only.
 9. Most fertile lands are cultivated first.

Statement of the Theory with Illustration

- Assume that some people go to a newly discovered island and settle down there. There are three grades of land, namely A, B and C in that island.
- ‘A’ being most fertile, ‘B’ less fertile and ‘C’ the least fertile.
- They will first cultivate all the most fertile land (A grade) available.
- Since the land is abundant and idle, there is no need to pay rent as long as such best lands are freely available.
- Given a certain amount of labour and capital, the yield per acre on ‘A’ grade land is 40 bags of paddy.
- Suppose another group of people goes and settles down in the same island after some time.
- Hence the demand for agricultural produce will increase.
- The most fertile lands [A grade] alone cannot produce all the food grains that are needed on account of the operation of the law of diminishing returns.

- So the less fertile lands [B grade] will have to be brought under cultivation.
- Suppose yet another group of people goes and settles down in the same island.
- So the least fertile land (C grade) will have to be brought under cultivation.
- For the same amount of labour and capital, the yield per acre on 'C' grade land is 20 bags of paddy.
- This surplus of 'A' grade land is now raised to 20 bags [40-20], and it is the "Economic Rent" of 'A' grade land.
- The surplus of 'B' grade land is 10 bags [30-20].
- This is the economic rent of 'B' grade land.
- In the above illustration in 'C' grade land, cost of production is just equal to the price of its produce and therefore does not yield any rent (20 - 20).
- Hence, 'C' grade land is called "no-rent land or marginal land".
- Therefore, No-Rent Land or Marginal Land is the land in which cost of production is just equal to the price of its produce.
- The land which yields rent is called "intra -marginal land".

Grades of Lands	Production (in bags)	Surplus (i.e., Rent in bags)
A	40	$40-20=20$
B	30	$30-20=10$
C	20	$20-20=0$



- In the above diagram X axis represents various grades of land and Y axis represents yield per acre (in bags). OA, AB and BC are the 'A' grade, 'B' grade and 'C' grade lands respectively.
- The application of equal amount of labour and capital on each of them gives a yield represented by the rectangles standing just above the respective bases.
- The 'C' grade land is the "no-rent land" 'A' and 'B' grade lands are "intra -marginal lands".

Criticisms

1. The order of cultivation from most fertile to least fertile lands is historically wrong.
2. This theory assumes that, rent does not enter into price. But in reality, rent enters into price.

37. Elucidate the Loanable Funds Theory of Interest.

- The Loanable Funds Theory, also known as the “Neo-Classical Theory”, was developed by Swedish economists like Wicksell, Bertil Ohlin, Viner, Gunnar Myrdal and others.
- According to this theory, interest is the price paid for the use of loanable funds. The rate of interest is determined by the equilibrium between demand for and supply of loanable funds in the credit market.

Demand for Loanable Funds

1. Demand for Investment (I)

- The most important factor responsible for the loanable funds is the demand for investment.
- Bulk of the demand for loanable funds comes from business firms which borrow money for purchasing capital goods.

2. Demand for Consumption (C)

- The demand for loanable funds comes from individuals who borrow money for consumption purposes also.

3. Demand for Hoarding (H)

- The next demand for loanable funds comes from hoarders.
- Demand for hoarding money arises because of people's preference for liquidity, idle cash balances and so on.
- The demand for C, I and H varies inversely with interest rate.

Supply of Loanable Funds

1. Savings (S)

- Loanable funds come from savings.

According to this theory, savings may be of two types, namely,

1. Savings planned by individuals are called “ex-ante savings”. E.g. LIC premium, EMI payment etc.
2. The unplanned savings are called, “ex-post savings”. Savings is left out after spending are ex post saving.

2. Bank Credit (BC)

- The bank credit is another source of loanable funds.
- Commercial banks create credit and supply loanable funds to the investors.

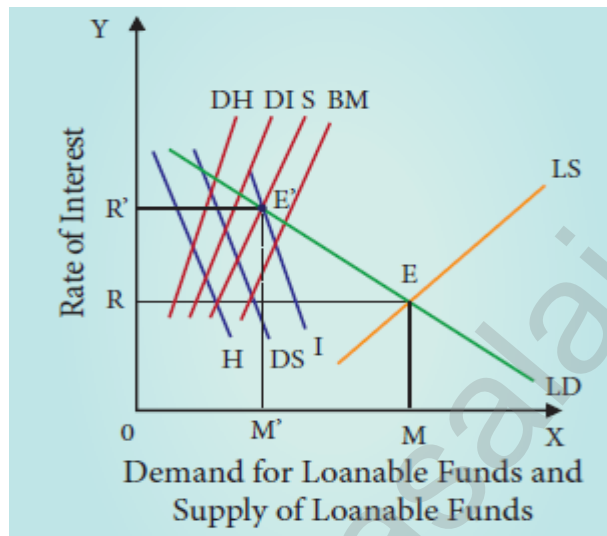
3. Dishoarding (DH)

- Dishoarding means bringing out the hoarded money into use and thus it constitutes a source of supply of loanable funds.
- In India, after 1991, Public sector undertakings are being sold to private people to mobilize more funds.
- This is also called disinvestment.

4. Disinvestment(DI)

- Disinvestment is the opposite of investment.
- In other words disinvestment means not providing sufficient funds for depreciation of equipment.
- It gives rise to the supply of loanable funds.
- All the four sources of supply of loanable funds vary directly with the interest rate.

Equilibrium



- In the above Diagram X axis represents the demand for and supply of loanable funds and Y axis represents the rate of interest.
- The LS curve represents the total supply curve of loanable funds.
- This is obtained by the summation of the Saving Curve (S), Bank credit curve (BC), Dishoarding curve (DH) and Disinvestment curve (DI).
- The LD curve represents the total demand for loanable funds; this is obtained by the summation of the demand for investment curve I, demand curve for consumption demand or dissaving curve and curve for demand for hoarding curve H.
- The LD and LS curves, intersect each other at the point “E” the equilibrium point.

Criticisms

- 1. Many factors have been included in this theory. Still there are many more factors. Two such factors are
- 1) Asymmetric Information
- 2) Moral Hazard.
- In practice larger firms, due to their political powers, are able to get huge bank credit at lower interest rates. But due to NPAs,
- It is very difficult to combine real factors like savings and investment with monetary factors like bank credit and liquidity preference.

38. Explain the Keynesian Theory of Interest.

- Keynes propounded the Liquidity Preference Theory of Interest in his famous book, “The General Theory of Employment, Interest and Money” in 1936.

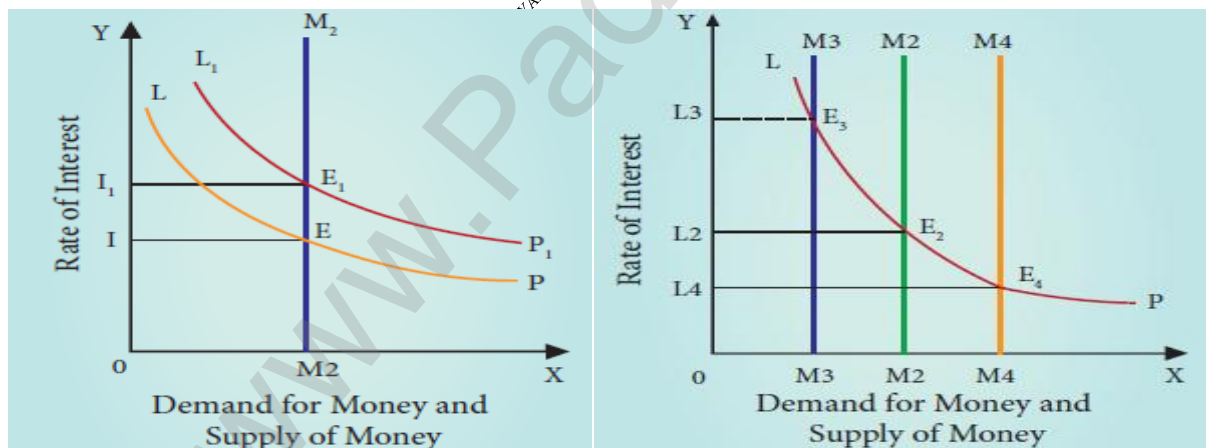
Meaning of Liquidity Preference

- Liquidity preference means the preference of the people to hold wealth in the form of liquid cash rather than in other non- liquid assets like bonds, securities, bills of exchange, land, building, gold etc.
- 1. The Transaction Motive The transaction motive relates to the desire of the people to hold cash for the current transactions.
- 2. The Precautionary Motive The precautionary motive relates to the desire of the people to hold cash to meet unexpected or unforeseen expenditures such as sickness, accidents, fire and theft.
- 3. The Speculative Motive The speculative motive relates to the desire of the people to hold cash in order to take advantage of market movements regarding the future changes in the price of bonds and securities in the capital market.

Interest

- According to Keynes, the rate of interest is determined by the demand for money and the supply of money.
- The demand for money is liquidity preference.

Equilibrium between Demand and Supply of Money



- LP is the liquidity preference Curve (demand curve).
- M2 shows the supply curve of money to satisfy speculative motive.
- Both curves intersect at the point E, which is the equilibrium point.
- Hence, the rate of interest is 2.5.
- If liquidity preference increases from LP to L₁P₁ the supply of money remains constant, the rate of interest would increase from OI to OI₁. Numerical examples given above can also be used for better understanding.

- Total demand for money= $M_t + M_p + M_s$
- In reality, interest rate is also influenced by national income and commodity sector equilibrium.
- However, they are not included here for making the understanding easier.

Criticisms

- 1. This theory does not explain the existence of different interest rates prevailing in the market at the same time.
- 2. It explains interest rate only in the short-run.

7.INDIAN ECONOMY

PART-B 2 MARKS

21. Write the meaning of Economic Growth.

- A country's economic growth is usually measured by National Income, indicated by Gross Domestic Product (GDP).
- The GDP is the total monetary value of the goods and services produced by that country over a specific period of time, usually one year.

22. State any two features of developed economy.

- 1) High National Income
- 2) High Per Capita Income

23. Write the short note on natural resources.

- Any stock or reserve that can be drawn from nature is a Natural Resource.
- The major natural resources are -land, forest, water, mineral and energy.

24. Point out any any one feature of Indian Economy.

- Indian economy is a typical example of mixed economy.
- This means both private and public sectors co-exist and function smoothly.

25. Give the meaning of non-renewable energy .

- As the name suggests, the sources of energy which cannot be renewed or re-used are called non-renewable energy sources.

26. Give a short note on Sen's 'Choice of Technique'.

- Sen's 'Choice of Technique ' was a research work where he argued that in a labour surplus economy, generation of employment cannot be increased at the initial stage by the adaptation of capital-intensive technique.

27. List out the reasons for low per capita income as given by V.K.R.V. Rao.

- i. Uneconomic holdings with sub-divisions and fragmentation
- ii. Low levels of water availability for crops

PART – C 3 MARKS**28. Define Economic Development.**

- The level economic development is indicated not just by GDP, but by an increase in citizens' quality of life or well-being.
- The quality of life is being assessed by several indices such as Human Development Index (HDI), Physical Quality of Life Index (PQLI) and Gross National Happiness Index (GNHI).
- On the basis of the level of economic development, nations are classified as developed and developing economies.
- Developed economies are those countries which are industrialised, utilise their resources efficiently and have high per capita income.
- The USA, Canada, U.K, France, and Japan are some of the developed economies. Developed economies are also termed as Advanced Countries.
- On the other hand, countries which have not fully utilized their resources like land, mines, workers, etc., and have low per capita income are termed as under developed economies.
- Examples of underdeveloped countries are Bangla Desh, Myanmar, Pakistan.

29. State Ambedkar's Economic ideas on agricultural economics.

- In 1918, Ambedkar published a paper "Small Holding in India and their Remedies".
- Citing Adam Smith's 'Wealth of Nations', he made a fine distinction between "Consolidation of Holdings" and "Enlargement of Holdings".

30. Write on short note on village sarvodaya.

- According to Gandhi, "Real India was to be found in villages and not in towns or cities."
- So he suggested the development of self-sufficient, self-dependent villages.

31. Write the strategy of Jawaharlal Nehru in India's planning.

- Jawaharlal Nehru was responsible for the introduction of planning in our country.
- To Jawaharlal Nehru, the Plan was essentially an integrated approach for development. Initiating the debate on the Second Plan in the Lok Sabha in May 1956, Nehru spoke on the theme of planning.
- He said, "the essence of planning is to find the best way to utilize all resources of manpower, of money and so on." Planning for Nehru was essentially linked up with industrialization and eventual self-reliance for the country's economic growth on a self- accelerating growth.
- Nehru carried through this basic strategy of planned development.

32. Write the V.K.R.V.Rao's contribution on multiplier concept.

- Rao's examination of the "interrelation between investment, income and multiplier in an under developed economy" (1952) was his major contribution to macroeconomic theory.
- As a thinker, teacher, economic adviser and direct policy maker, V.K.R.V. Rao followed the footsteps of his great teacher, John Maynard Keynes.

33. Write a short note on Welfare Economics given by Amartya Sen.

1. Poverty and Famines

- In his book, several famines have been studied in the working of a general theoretical framework from an original angle.

2. Poverty and Inequality

- Sen has carried out massive work on poverty and inequality in India.
- Sen's major point has been that the distribution of income/ consumption among the persons below the poverty line is to be taken into account.

3. The Concept of Capability

- The concept of capabilities developed by Sen has been cited as a better index of wellbeing than commodities or utilities.

4. Entitlement

- Sen has included the concept of entitlement items like nutrition, food, medical and health care, employment, security of food supply in times of famine etc.

5. Choice of Technique

- Sen's 'Choice of Technique' was a research work where he argued that in a labour surplus economy, generation of employment cannot be increased at the initial stage by the adaptation of capital-intensive technique.

34. Explain Social infrastructure.

- Social infrastructure refers to those structures which are improving the quality of manpower and contribute indirectly towards the growth of an economy.
- These structures are outside the system of production and distribution.
- The development of these social structures help in increasing the efficiency and productivity of manpower.
- For example, schools, colleges, hospitals and other civic amenities.
- It is a fact that one of the reasons for the low productivity of Indian workers is the lack of development of social infrastructure.

PART- D 5MARKS**35. Explain strong features Indian economy****1. India has a mixed economy**

- Indian economy is a typical example of mixed economy.
- This means both private and public sectors co-exist and function smoothly.

2. Agriculture plays the key role

- Agriculture being the maximum pursued occupation in India, it plays an important role in its economy as well.
- Around 60% of the people in India depend upon agriculture for their livelihood.

3. An emerging market

- India has emerged as vibrant economy sustaining stable GDP growth rate even in the midst of global downtrend.
- This has attracted significant foreign capital through FDI and FII

4. Emerging Economy

- Emerging as a top economic giant among the world economy, India bags the seventh position in terms of nominal Gross Domestic Product (GDP) and third in terms of Purchasing Power Parity (PPP).

5. Fast Growing Economy

- India's economy is well known for high and sustained growth.
- It has emerged as the world's fastest growing economy in the year 2016-17.

6. Fast growing Service Sector

- The service sector, contributes a lion's share of the GDP in India.
- There has been a high rise growth in the technical sectors like Information Technology, BPO etc.

7. Large Domestic consumption

- With the faster growth rate in the economy the standard of living has improved a lot.

8. Rapid growth of Urban areas

- Urbanization is a key ingredient of the growth of any economy.
- There has been a rapid growth of urban areas in India after independence.

9. Stable macro economy

- The Indian economy has been projected and considered as one of the most stable economies of the world.

36. Write the importance of mineral resources in India.

1.Iron-Ore

- India possesses high quality iron-ore in abundance.
- Hematite iron is mainly found in Chattisgarh, Jharkhand, Odisha, Goa and Karnataka.

2.Coal and Lignite

- Coal is the largest available mineral resource.
- India ranks third in the world after China and USA in coal production.
- The main centres of coal in India are the West Bengal, Bihar, Madhya Pradesh, Maharashtra, Odisha and Andhra Pradesh.

3.Bauxite

- Bauxite is a main source of metal like aluminium.
- Major reserves are concentrated in the East Coast bauxite deposits of Odisha and Andhra Pradesh.

4.Mica

- Mica is a heat resisting mineral which is also a bad conductor of electricity.
- It is used in electrical equipments as an insulator.
- India stands first in sheet mica production and contributes 60% of mica trade in the world.

5.Crude Oil

- Oil is being explored in India at many places of Assam and Gujarat.

6.Gold

- India possesses only a limited gold reserve.
- There are only three main gold mine regions—Kolar Goldfield, Kolar district and Hutti Goldfield in Raichur district (both in Karnataka) and Ramgiri Goldfield in Anantpur district (Andhra Pradesh).

7.Diamond

- As per UNECE the total reserves of diamond is estimated at around 4582, thousand carats which are mostly available in Panna(Madhya Pradesh), Rammallakota of Kurnur district of Andhra Pradesh and also in the Basin of Krishna River.

37. Bring out Jawharlal Nehru's contribution to the idea of economic development.

1.Democracy and Secularism

- Jawaharlal Nehru was a firm believer in democracy.
- He believed in free speech civil liberty, adult franchise and the Rule of Law and Parliamentary democracy.
- Secularism, is another signal contribution of Nehru to India.
- In our country, there are many religions -Hinduism, Islam, Christianity, Buddhism, Jainism, Zoroastrianism, Sikhism and so on.

2.Planning

- Jawaharlal Nehru was responsible for the introduction of planning in our country.
- To Jawaharlal Nehru, the Plan was essentially an integrated approach for development.
- Initiating the debate on the Second Plan in the Lok Sabha in May 1956, Nehru spoke on the theme of planning.

3.Democratic Socialism

- Socialism is another contribution of Nehru to India.
- He put the country on the road towards a socialistic pattern of society.
- But Nehru's socialism is democratic socialism.

38. Write a brief note on the Gandhian economic ideas.

1.Village Republics:

- To Gandhi, India lives in villages.
- He was interested in developing the villages as self-sufficient units.
- He opposed extensive use of machinery, urbanization and industrialization.

2.On Machinery:

- Gandhi described machinery as 'Great sin'.
- He said that "Books could be written to demonstrate its evils... it is necessary to realize that machinery is bad.

3.Industrialism:

- Gandhi considered industrialism as a curse on mankind.
- He thought industrialism depended entirely on a country's capacity to exploit.

4.Decentralization:

- He advocated a decentralized economy, i.e., production at a large number of places on a small scale or production in the people's homes.

5. Village Sarvodaya:

- According to Gandhi, "Real India was to be found in villages and not in towns or cities."

6.Bread Labour:

- Gandhi realized the dignity of human labour.

- He believed that God created man to eat his bread by the sweat of his brow.

7.The Doctrine of Trusteeship:

- Trusteeship provides a means of transforming the present capitalist order of society into an egalitarian one.

8.On the Food Problem:

- Gandhi was against any sort of food controls.
- He thought such controls only created artificial scarcity.

9.On Population:

- Gandhi opposed the method of population control through contraceptives

10.On Prohibition:

- Gandhi advocated cent per cent prohibition.
- He regarded the use of liquor as a disease rather than a vice.

8.Indian Economy Before and After Independence

PART –B 2 MARKS

21. What are the Phases of colonial exploitation of India?

- The period of merchant capital,
- The period of industrial capital,
- The period of finance capital.

22. Name out the different types of land tenure existed in India before Independence.

- Zamindari system,
- Mahalwari system
- Ryotwari system.

23. State the features that distinguish a land tenure system from other system.

- Who owns the land ;
- Who cultivates the land;
- Who is responsible for paying the land revenue to the government.

24. List out the weaknesses on Green Revolution.

- Indian Agriculture was still a gamble of the monsoons.
- This strategy needed heavy investment in seeds, fertilizers, pesticides and water.
- The income gap between large, marginal and small farmers had increased.

25. What are the objectives of Tenth five year plan ?

- This plan aimed to double the per capita income of India in the next 10 years.
- It aimed to reduce the poverty ratio to 15% by 2012.
- Its growth target was 8.0% but it achieved only 7.2%.

26. What is the difference between HDI and PQLI ?

- **Human Development Index:** It is a composite statistic of life expectancy, education and per capita income indicators.
- **Physical Quality of Life Index:** It is a measure to calculate the quality of life (well being of a country).

27. Mention the indicators which are used to calculate HDI.

- Longevity is measured by life expectancy at birth,
- Educational attainments,
- Standard of living, measured by real GDP per capita (PPP\$).

PART –C 3 MARKS

28. Explain about the Period of Merchant Capital.

- The period of merchant capital was from 1757 to 1813.
- The only aim of the East India Company was to earn profit by establishing monopoly trade in the goods with India and the East India's.
- During this period, India had been considered as the best hunting ground for capital by the East Indian company to develop industrial capitalism is Britain.
- When Bengal and South India came under political shake of the East India company in 1750s and 1760s, the objective of monopoly trade was fulfilled.
- Above all, the officers of the company were unscrupulous and corrupt.

29. The Handicrafts declined in India in British Period. Why?

- The Indian handicrafts products had a worldwide market. Indian exports consisted chiefly of hand weaved cotton and silk fabrics, calicoes, artistic wares, wood carving etc.
- Through discriminatory tariff policy, the British Government purposefully destroyed the handicrafts.
- With the disappearance of nawabs and kings, There was no one to protect Indian handicrafts.
- Indian handicraft products could not compete with machine-made products.
- The introduction of railways in India increased the domestic market for the British goods.

30. Elucidate the different types of land tenure system in colonial India.

Zamindari System or the Land lord-Tenant System

- This system was created by the British East India Company, when in 1793, Lord Cornwallis introduced 'Permanent Settlement Act'.

- Under this system the landlords or the Zamindars were declared as the owners of the land and they were responsible to pay the land revenue to the government.

Mahalwari System or Communal System of Farming

- After introduction of this system, it was later extended to Madhya Pradesh and Punjab.
- The ownership of the land was maintained by the collective body usually the villagers which served as a unit of management.
- They distributed land among the peasants and collected revenue from them and pay it to the state.

Ryotwari System or the Owner-Cultivator System

- This system was initially introduced in Tamil Nadu and later extended to Maharashtra, Gujarat, Assam, Coorg, East Punjab and Madhya Pradesh.
- Under this system the ownership rights of use and control of land were held by the tiller himself.
- This system was the least oppressive system before Independence.

31. State the reasons for nationalization of commercial banks.

- After Independence, the Government of India adopted planned economic development.
- For this purpose, Five Year Plans came into existence since 1951.
- The main objective of the economic planning aimed at social welfare.
- Before Independence commercial banks were in the private sector.
- These commercial banks failed in helping the Government to achieve social objectives of planning.
- Therefore, the government decided to nationalize 14 major commercial banks on 19 July 1969. In 1980, again the government took over another 6 commercial banks.

32. Write any three objectives of Industrial Policy 1991.

- Liberalising the industry from the regulatory devices such as licenses and controls.
- Enhancing support to the small scale sector.
- Increasing competitiveness of industries for the benefit of the common man.
- Ensuring running of public enterprises on business lines and thus cutting their losses.
- Providing more incentives for industrialisation of the backward areas.

33. Give a note on Twelfth Five Year Plan.

- Its main theme is “Faster, More Inclusive and Sustainable Growth”.
- Its growth rate target is 8%.

34. What is PQLI ?

- Morris D Morris developed the Physical Quality of Life Index (PQLI).
- The PQLI is a measure to calculate the quality of life (well being of a country).
- For this, he included three indicators such as life expectancy, infant mortality rate and literacy rate.
- A scale of each indicator ranges from the number 1 to 100.
- Number 1 represents the worst performance by any country. 100 is the best performance.
- For example, in case of life expectancy, the upper limit of 100.
- This was assigned to 77 years which was achieved by Sweden in 1973.
- The lower limit of 1 was assigned to 28 years which was achieved by Guinea-Bissau in 1960.

PART –D 5 MARKS**35. Discuss about the Indian economy during British Period.**

- Britain had exploited India over a period of two centuries of its colonial rule.
- On the basis of the form of colonial exploitation, economic historians have divided the whole period into three phases, namely the period of merchant capital, the period of industrial capital, the period of finance capital.

Period of Merchant Capital

- The period of merchant capital was from 1757 to 1813.
- The only aim of the East India Company was to earn profit by establishing monopoly trade in the goods with India and the East India's.
- During this period, India had been considered as the best hunting ground for capital by the East Indian company to develop industrial capitalism is Britain.
- When Bengal and South India came under political shake of the East India company in 1750s and 1760s, the objective of monopoly trade was fulfilled.
- Above all, the officers of the company were unscrupulous and corrupt.

Period of Industrial Capital

- The period of Industrial capital was from 1813 to 1858.
- During this period, India had become a market for British textiles.
- India's raw materials were exported to England at low price and imported finished textile commodities to India at high price.
- India's traditional handicrafts were thrown out of gear.

Period of Finance Capital

- The third phase was the period of finance capital starting from the closing years of the 19th century and continuing till independence.
- During this period, finance imperialism began to entrench itself through the managing agency firms, export – import firms, exchange banks and some export of capital.

- Indian handicraft products could not compete with machine-made products.
- The introduction of railways in India increased the domestic market for the British goods.

36. Explain the role of SSIs in economic developmet?

1. Provide Employment

- SSIs use labour intensive techniques.
- Hence, they provide employment opportunities to a large number of people.
- Thus, they reduce the unemployment problem to a great extent.

2. Bring Balanced Regional Development

- SSIs promote decentralized development of industries as most of the SSIs are set up in backward and rural areas.
- They remove regional disparities by industrializing rural and backward areas and bring balanced regional development.

3. Help in Mobilization of Local Resources

- SSIs help to mobilize and utilize local resources like small savings, entrepreneurial talent etc., of the entrepreneurs, which might otherwise remain idle and unutilized.
- They pave way for promoting traditional family skills and handicrafts.

4. Pave for Optimisation of Capital

- SSIs require less capital per unit of output. They provide quick return on investment due to shorter gestation period. The payback period is quite short in SSIs.
- SSIs function as a stabilizing force by providing high output-capital ratio as well as high employment-capital ratio.

5. Promote Exports

- SSIs do not require sophisticated machinery.
- Hence, import the machines from abroad is not necessary.

6. Complement Large Scale Industries

- SSIs play a complementary role to large scale sector and support the large scale industries.
- SSIs serve as ancillaries to large scale units.

7. Meet Consumer Demands

- SSIs produce wide range of products required by consumers in India.
- Hence, they serve as an anti-inflationary force by providing goods of daily use.

8. Develop Entrepreneurship

- SSIs help to develop a class of entrepreneurs in the society. They help the job seekers to become job givers.
- They promote self-employment and spirit of self-reliance in the society.

37. Explain the objectives of nationalization of commercial banks.

- 1. The main objective of nationalization was to attain social welfare. Sectors such as agriculture, small and village industries were in need of funds for their expansion and further economic development.**
- 2. Nationalisation of banks helped to curb private monopolies in order to ensure a smooth supply of credit to socially desirable sections.**
- 3. In India, nearly 70% of population lived in rural areas. Therefore it was needed to encourage the banking habit among the rural population.**
- 4. Nationalisation of banks was required to reduce the regional imbalances where the banking facilities were not available.**
- 5. Before Independence, the numbers of banks were certainly inadequate. After nationalization, new bank branches were opened in both rural and urban areas.**
- 6. Banks created credit facilities mainly to the agriculture sector and its allied activities after nationalization.**

38. Describe the performance of 25 five year plan in India.

First Five Year Plan (1951-1956)

- **It was based on the Harrod-Domar Model.**
- **Its main focus was on the agricultural development of the country.**

Second Five Year Plan (1956-1961)

- **It was based on the P.C. Mahalanobis Model.**
- **Its main focus was on the industrial development of the country.**

Third Five Year Plan (1961-1966)

- **This plan was called 'Gadgil Yojana' also.**
- **The main target of this plan was to make the economy independent and to reach self propelled position or take off.**

Plan Holiday (1966-1969)

- **The main reason behind the plan holiday was the Indo-Pakistan war & failure of third plan.**
- **During this plan, annual plans were made and equal priority was given to agriculture, its allied sectors and the industry sector.**

Fourth Five Year Plan (1969-1974)

- **There are two main objectives of this plan i.e. growth with stability and progressive achievement of self reliance.**

Fifth Five Year Plan (1974-1979)

- In this plan top priority was given to agriculture, next came industry and mines.
- The draft of this plan was prepared and launched by D.P. Dhar.
- This plan was terminated in 1978.

Rolling Plan

This plan was started with an annual plan for 1978-79 and as a continuation of the terminated fifth year plan.

Sixth Five Year Plan (1980-1985)

- The basic objective of this plan was poverty eradication and technological self reliance.
- Garibi-Hatao was the motto.
- It was based on investment yojana.

Seventh Five Year Plan (1985-1990)

- Objectives of this plan included the establishment of the self sufficient economy and opportunities for productive employment.
- For the first time, due to the pressure from private sector the private sector got the priority over public sector.
- Its growth target was 5.0% but it achieved 6.0%.

Annual Plans

- Eighth five year Plan could not take place due to volatile political situation at the centre. So two annual programmes are formed in 1990-91 & 1991-92.

Eighth Five Year Plan (1992-1997)

- In this plan the top priority was given to development of the human resources i.e. employment, education and public health.
- During this plan, New Economic Policy of India was introduced.
- This plan was successful and got annual growth rate of 6.8% against the target of 5.6%.

Ninth Five Year Plan (1997-2002)

- The main focus of this plan was “growth with justice and equity”.
- This plan failed to achieve the growth target of 7% and Indian economy grew only at the rate of 5.6%.

Tenth Five Year Plan (2002-2007)

- This plan aimed to double the per capita income of India in the next 10 years.
- It aimed to reduce the poverty ratio to 15% by 2012.

Eleventh Five Year Plan (2007-2012)

- Its main theme was “faster and more inclusive growth”.
- Its growth rate target was 8.1% but it achieved only 7.9%

Twelfth Five Year Plan (2012-2017)

- Its main theme is “Faster, More Inclusive and Sustainable Growth”.

9. Development Experiences in India**PART –B 2 MARKS****21. Why was structural reform implemented in Indian Economy?**

Structural reform implemented in Indian Economy because of

- Rampant poverty
- Widespread unemployment

22. State the reasons for implementing LPG.

- Rise in Fiscal Deficit
- Increase in Adverse Balance of Payments:
- Fall in Foreign Exchange Reserves

23. State the meaning of Privatization.

- Privatization means transfer of ownership and management of enterprises from public sector to private sector.

24. Define disinvestment

- Disinvestment means selling of government securities of Public Sector Undertakings (PSUs) to other PSUs or private sectors or banks.

25. Write three policy initiative introduced in 1991 – 92 to correct the fiscal

- Reduction in fertilizer subsidy,
- Abolition of subsidy on sugar,
- Disinvestment of a part of the government's equity holdings in select public sector undertakings.

26. State the meaning of Special Economic Zones.

- To attract larger foreign investments in India, the Special Economic Zones (SEZs) Policy was announced in April 2000.
- As part of the economic reforms, the system of taking over land by the government for commercial and industrial purposes was introduced in the country.

27. State the various components of Central sector schemes under post - harvest measures.

- **Mega Food Parks**
- **Scheme for Quality Assurance**

PART- C 3 MARKS

28. How do you justify the merits of Privatisation?

- **Privatization is most of the time associated with improved efficiency due to the profit incentive.**
- **Privatization reduces the government's political interference**
- **Privatization urges improvements in the company through competition.**

29. What are the measures taken towards Globalization?

- **Globalization refers to the integration of the domestic (Indian) economy with the rest of the world.**
- **Import through reduction of tariff and non-tariff barriers, opening the doors to Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI) are some of the measures towards globalization**

30. Write a note on Foreign investment policy?

- **The major feature of the economic reform was red carpet welcome to foreign investment and foreign technology.**
- **This measure has enhanced the industrial competition and improved business environment in the country.**
- **Foreign investment including FDI and FPI were allowed.**
- **In 1991, the government announced a specified list of high-technology and high-investment priority industries wherein automatic permission was granted for foreign direct investment (FDI) upto 51 percent foreign equity.**
- **The limit was raised to 74 percent and subsequently to 100 percent for many of these industries. Moreover, many new industries have been added to the list over the years.**
- **Foreign Investment Promotion Board (FIPB) has been set up to negotiate with international firms and approve foreign direct investment in select areas.**

31. Give short note on Cold storage.

- **India is the largest producer of fruits and second largest producer of vegetables in the world.**
- **In spite of that per capita availability of fruits and vegetables is quite low because of post harvest losses which account for about 25% to 30% of production.**

- Besides, quality of a sizable quantity of produce also deteriorates by the time it reaches the consumer.
- Most of the problems relating to the marketing of fruits and vegetables can be traced to their perishability.
- Perishability is responsible for high marketing costs, market gluts, price fluctuations and other similar problems.
- In order to overcome this constraint, the Government of India and the Ministry of Agriculture promulgated an order known as “Cold Storage Order, 1964”

32. Mention the functions of APMC.

1. To promote public private partnership in the ambit of agricultural markets.
2. To provide market led extension services to farmer.
3. To bring transparency in pricing system and transactions taking place in market in a transparent manner.
4. To ensure payments to the farmers for the sale of agricultural produce on the same day.
5. To promote agricultural activities.
6. To display data on arrivals and rates of agricultural produce from time to time into the market.

33. List out the features of new trade policy.

Free imports and exports:

- Prior to 1991, in India imports were regulated.
- From 1992, imports were regulated by a limited negative list.

Rationalization of tariff structure and removal of quantitative restrictions:

- The Chelliah Committee's Report had suggested drastic reduction in import duties.
- It had suggested a peak rate of 50 percent.

34. What is GST? Write its advantages.

Goods and Services Tax (GST) is defined as the tax levied when a consumer buys a good or service. It is proposed to be a comprehensive indirect tax levied on manufacture, sale and consumption of goods as well as services.

Advantages of GST

- Removing cascading tax effect
- Single point tax
- Higher threshold for registration
- Composition scheme for small business

- Online simpler procedure under GST
- Defined treatment for e-commerce
- Increased efficiency in logistics
- Regulating the unorganized sector

PART –D 5MARKS

35. Discuss the important initiatives taken by the Government of India towards Industrial Policy.

1. Industrial delicensing policy:

- The most important objective of the new industrial policy of 1991 was the end of the industrial licensing or the license raj or red tapism..

2. Dereservation of the industrial sector

- Previously, the public sector was given reservation especially in the capital goods and key industries.
- Under industrial deregulation, most of the industrial sectors were opened to the private sector as well.

3.Reforms related to the Public sector enterprises:

- Reforms in the public sector were aimed at enhancing efficiency and competitiveness of the sector.

4.Abolition of MRTP Act:

- The New Industrial Policy of 1991 has abolished the Monopoly and Restrictive Trade Practices Act 1969.

5.Foreign investment policy:

- Another major feature of the economic reform was red carpet welcome to foreign investment and foreign technology.
- This measure has enhanced the industrial competition and improved business environment in the country.
- Foreign investment including FDI and FPI were allowed.

36. Explain the objectives and characteristics of SEZs.

- To enhance foreign investment, especially to attract foreign direct investment (FDI) and thereby increasing GDP.
- To increase shares in Global Export (International Business).
- To generate additional economic activity.
- To create employment opportunities.
- To develop infrastructure facilities.
- To exchange technology in the global market.

Main Characteristics of SEZ

- Geographically demarked area with physical security
- Administrated by single body/ authority

- Streamlined procedures
- Having separate custom area
- Governed by more liberal economic laws.
- Greater freedom to the firms located in SEZs.

37. Describe the salient features of EXIM policy (2015 – 2020)

- Reduce export obligations by 25% and give boost to domestic manufacturing supporting the “Make in India” concept.
- As a step to Digital India concept, online procedure to upload digitally signed document by CA/CS/Cost Accountant are developed and further mobile app for filing tax, stamp duty has been developed.
- Repeated submission of physical copies of documents available on Exporter Importer Profile is not required.
- Export obligation period for export items related to defence, military store, aerospace and nuclear energy to be 24 months.
- EXIM Policy 2015-2020 is expected to double the share of India in World Trade from present level of 3% by the year 2020. This appears to be too ambitions.

10 RURAL ECONOMICS

PART –B 2 MARKS

21. Define Rural Economy.

- Rural economy refers to villages, and rural community refers to people living in villages.

22. What do you mean by Rural Development?

- According to the World Bank, ‘Rural Development is a strategy designed to improve the economic and social life of a specific group of people - rural poor’

23. Rural Poverty – Define

- Rural poverty refers to the existence of poverty in rural areas.
- Poverty in India has been defined as the situation in which an individual fails to earn sufficient income to buy the basic minimum of subsistence..

24. Define Open Unemployment.

- In Open Unemployment, unemployed persons are identified as they remain without work.
- This type of unemployment is found among agricultural labourers, rural artisans and literate persons.

25. What is meant by Disguised Unemployment?

- In Concealed Unemployment, it is difficult to identify who are under employed; for many are employed below their productive capacity and even if they are withdrawn from work the output will not diminish.

26. Define Cottage Industry.

- Cottage industries are generally associated with agriculture and provide both part-time and full-time jobs in rural areas.

27. What do you mean by Micro Finance?

- Micro finance, also known as micro credit, is a financial service that offers loans, savings and insurance to entrepreneurs and small business owners who do not have access to traditional sources of capital, like banks or investors.

28. State any two causes of housing problem in rural areas.

- Rapid adoption of nuclear families
- Lack of water supply, good sanitation, proper disposal of sewage

29. Define Rural Electrification.

- Rural Electrification refers to providing electrical power to rural areas.
- The main aims of rural electrification are to provide electricity to agricultural operations and to enhance agricultural productivity, to increase cropped area, to promote rural industries and to lighting the villages.

30. State any two factors hindering Rural Electrification in India.

1. Lack of Funds:

- The generation and transmission of power involves huge expenditure and the fund allocation is low.

2. Inter-state Disputes:

- As there are inter-state disputes in managing power projects, power distribution is affected.

PART – C 3 MARKS

31. State the importance of Rural Development.

1. A major share of population lives in rural areas, and their development and contributions are very much supportive for the nation building activities.
2. The rural economy supports the urban sectors by way of supplying drinking water, milk, food and raw materials.
3. Improvements in education, health and sanitation in villages can help avoid many urban problems namely, begging, rack picking and road side slumming.
4. Development of agriculture and allied activities are necessary for providing gainful employment in rural areas and improving overall food production.

5. The evils of brain-drain and rural-urban migration can be reduced if rural areas are developed.
6. In order to better utilise the unused and under-utilised resources, there is a need to develop the rural economy.
7. Rural development should minimise the gap between rural and urban areas in terms of the provision of infrastructural facilities.
8. In order to improve the nation's status in the global arena in terms of the economic indicators

32. Explain the causes for Rural Backwardness.

1. Lack of Non-farm Employment:

- Non-farm employment opportunities do not match the increasing labour force. The excess supply of labour in rural areas reduces the wages and increases the incidence of poverty.

2. Lack of Public Sector Investment:

- The root cause of rural poverty in our country is lack of public sector investment on human resource development.

3. Inflation:

- Steady increase in prices affects the purchasing power of the rural poor leading to rural poverty.

4. Low Productivity:

- Low productivity of rural labour and farm activities is a cause as well as the effect of poverty.

5. Unequal Benefit of Growth:

- Major gains of economic development are enjoyed by the urban rich people leading to concentration of wealth.

33. Enumerate the remedial measures to Rural Poverty.

- Since rural unemployment and rural poverty are interrelated, creation of employment opportunities would support elimination of poverty.
- Poverty alleviation schemes and programmes have been implemented, modified, consolidated, expanded and improved over time.
- However, unemployment, begging, rag picking and slumming continues.

Poverty Eradication Schemes			
Schemes	Year of launch		
20 Point Programme	1975	National Rural Employment Programme (NREP)	1980
Integrated Rural development Programme(IRDP)	1976	Rural Landless Employment Guarantee Programme(RLEGP)	1983
Training Rural Youths for Self-Employment (TRYSEM)	1979	Jawahar Rozgar Yojana(JRY)	1989
Food for Work Programme (FWP)	1977	Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)	2006

Development Schemes			
Pradhan Mantri Adarsh Gram Sadak Yojana (PMAGSY)	2010	Rajiv Awas Yojan (RAY)	2009
Bharat Nirman Yojana	2005	National Rural Health Mission	2005
Indira Awas Yojana	1985	National Rural Livelihood Mission	2011
Jawaharlal Nehru National Urban Renewal Mission (JNNURM)	2005	National Food Security Scheme	2013

34. What are the remedial measures for Rural Unemployment?

1.Subsidiary Occupation:

- To reduce the seasonal unemployment rural people should be encouraged to adopt subsidiary occupations.

2. Rural Works Programme:

- Rural Works Programme such as construction and maintenance of roads, digging of drains, canals.

3.Irrigation Facilities:

- Since rainfall is uncertain irrigation facilities should be expanded to enable the farmers to adopt multiple cropping.

4.Rural Industrialization:

- To provide employment new industries should be set up in rural areas.

5.Technical Education:

- Employment oriented courses should be introduced in schools and colleges to enable the literate youth to start their own units.

35. Write a note on Regional Rural Banks.

- Regional Rural Banks came into existence based on the recommendation made by a working group on rural banks appointed by the Government of India in 1975.
- RRBs are recommended with a view to developing rural economy by providing credit and other facilities particularly to the small and marginal farmers, agricultural labourers, artisans and small entrepreneurs.
- RRBs are set up by the joint efforts of the Centre and State Governments and commercial banks.
- At present, there are 64 Regional Rural Banks in India.
- The RRBs confine their lending's only to the weaker sections and their lending rates are at par with the prevailing rate of cooperative societies.

36. Mention the features of SHGs.

- Self Help Groups are informal voluntary association of poor people, from the similar socio-economic background, up to 20 women (average size is 14).
- They come together for the purpose of solving their common problems through self-help and mutual help.
- The SHG promotes small savings among its members.
- They save small amounts Rs.10 to Rs.50 a month.
- The savings are kept with a bank.
- It is a holistic programme of micro-enterprises covering all aspects of self-employment, organization of the rural poor into self Help groups and their capacity building, planning of activity clusters, infrastructure build up, technology, credit and marketing.
- These SHGs have helped the Banks to accumulate more funds.
- Actually the banks charge higher interest for the SHGs than car owners.

37. List out the objectives of MUDRA Bank.

1. Regulate the lender and the borrower of microfinance and bring stability to the microfinance system .
2. Extend finance and credit support to Microfinance Institutions (MFI) and agencies that lend money to small businesses, retailers, self-help groups and individuals.
3. Register all MFIs and introduce a system of performance rating and accreditation for the first time.
4. Offer a Credit Guarantee scheme for providing guarantees to loans being offered to micro businesses.
5. Introduce appropriate technologies to assist in the process of efficient lending, borrowing and monitoring of distributed capital.

PART –D 5 MARKS

38. 'The features of Rural Economy are peculiar'- Argue.

1. Village is an Institution:

- The Village is a primary institution and it satisfies almost all the needs of the rural community.

2. Dependence on Agriculture:

- The rural economy depends much on nature and agricultural activities.

3. Life of Rural People:

- Lifestyles in villages are very simple.

Population Density:

- Population density, measured by number of persons living per sq. km is very low and houses are scattered in the entire villages.

5. Employment:

- There exists unemployment, seasonal unemployment and underemployment in rural areas.

6. Poverty:

- Poverty is a condition where the basic needs of the people like food, clothing and shelter are not being met.

7. Indebtedness:

- People in rural areas are highly indebted owing to poverty and underemployment, lack of farm and non-farm employment opportunities.

8. Rural Income:

- The income of the rural people is constrained as the rural economy is not sufficiently vibrant to provide them with jobs.

9. Dependency:

- Rural households are largely dependent on social grants and remittances from family members working in urban areas and cities.

10. Dualism:

- Dualism means the co existence of two extremely different features.

11. Inequality:

- The distributions of income, wealth and assets are highly skewed among rural people.

12. Migration:

- Rural people are forced to migrate from villages to urban areas in order to seek gainful employment for their livelihood.

39. Discuss the problems of Rural Economy.

1. People Related Problems:

- The problems related to individuals and their standard of living consist of illiteracy, lack of technical knowhow, low level of confidence, dependence on sentiments and beliefs etc.

2. Agriculture Related Problems:

1.Lack of expected awareness, knowledge, skill and attitude,

2.Unavailability of inputs, 3.Poor marketing facility,

- 4. Insufficient extension staff and services,
- . Multidimensional tasks to extension personnel,
- 6. Small size of land holding,

3. Infrastructural Related Problems:

- Poor infrastructure facilities like, water, electricity, transport, educational institutions, communication, health, employment, storage facility, banking and insurance are found in rural areas.

4. Economics related Problems:

- The economic problems related to rural areas are: inability to adopt high cost technology, high cost of inputs, under privileged rural industries, low income, indebtedness and existence of inequality in land holdings and assets.

5. Leadership Related Problems:

- The specific leadership related problems found in rural areas are: Leadership among the hands of inactive and incompetent people, self-interest of leaders, biased political will, less bargaining power and negotiation skills and dominance of political leaders.

6. Administrative Problems:

- The rural administrative problems consist of political interference, lack of motivation and interest, low wages in villages, improper utilization of budget, and absence of monitoring and implementation of rural development programme.

40. Analyse the causes for Rural Indebtedness.

1. Poverty of Farmers:

- The vicious circle of poverty forces the farmers to borrow for consumption, cultivation and celebrations.
- Thus, poverty, debt and high rates of interest hold the farmer in the grip of money lenders.

2. Failure of Monsoon:

- Frequent failure of monsoon is a curse to the farmers and they have to suffer due to the failure of nature.
- Therefore, farmers find it difficult to identify good years to repay their debts.

3. Litigation:

- Due to land disputes litigation in the court compels them to borrow heavily.
- Being uneducated and ignorant they are caught in the litigation process and dry away their savings and resources.

4. Money Lenders and High Rate of Interest:

- The rate of interest charged by the local money lenders is very high and the compounding of interest leads to perpetuate indebtedness of the farmer.

11.Tamil Nadu Economy

21. State any two districts with favorable sex ratio. Indicate the ratios.

1. The Nilgiris (1041 females)
2. Thanjavur (1031 females)

22. Define GSDP.

The Gross State Domestic Product refers to the total money value of all the goods and services produced annually in the State.

23. Mention any four food crops which are favourable to Tamil Nadu.

1.Rice 2. Millets 3.Pulses 4. Coarse cereals

24. What are major ports in Tamil Nadu?

1.Chennai, 2.Ennore, 3. Tuticorin,

25. What is heritage tourism?

- Heritage tourism means the practice of travelling abroad to places of historical or cultural interest.

26. What are the nuclear power plants in Tamil Nadu?

- The Kalpakkam Nuclear Power Plant
- The Koodankulam Nuclear Power Plant

27. Define Micro industry

- Industry with a capital investment, not exceeding 25 lakhs

PART – C 3 MARKS

28. Write a note on mineral resources in Tamil Nadu.

- Tamil Nadu has a few mining projects based on Titanium, Lignite, Magnesite, Graphite, Limestone, Granite and Bauxite.
- The first one is the Neyveli Lignite Corporation that has led development of large industrial complex around Neyveli in Cuddalore with Thermal power plants, Fertilizer and Carbonisation plants.
- Magnesite mining is at Salem from which mining of Bauxite ores are carried out at Yercaud and this region is also rich in Iron Ore at Kanjamalai.
- Molybdenum is found in Dharmapuri, and is the only source in the country.

29. Explain GSDP in Tamil Nadu.

- Tamil Nadu is the second largest economy in India.
- The GSDP of Tamil Nadu is equal to the GDP of Kuwait on nominal term and GDP of UAE on PPP terms.

- The GSDP of Tamil Nadu is far higher compared to many countries as shown below.
- This is mainly due to population effect. Per capita GSDP would be better for intercountry or interstate comparisons.
- Tamil Nadu may go below if per capita GSDP is considered for comparison.

30. Describe development of textile industry in Tamil Nadu.

- Tamil Nadu is the largest textile hub of India.
- Tamil Nadu is known as the “Yarn Bowl” of the country accounting for 41% of India’s cotton yarn production.
- The textile industry plays a significant role in the Indian economy by providing direct employment to an estimated 35 million people.
- From spinning to garment manufacturing, entire textile production chain facilities are in Tamil Nadu. About half of India’s total spinning mill capacity is in Tamil Nadu.
- The western part of Tamil Nadu comprising Coimbatore, Tirupur, Erode, Dindigul and Karur has the majority of spinning mills manufacturing cotton/polyester/blended yarn and silk yarn used by garment units in Tamil Nadu, Maharastra etc.
- Yarn is also exported to China, Bangladesh etc.
- Tirupur known as “Knitting City”
- Karur is the major home for textile manufacturing and export hub in India.
- Erode is the main cloth market in South India for both retail and wholesale ready-mades.

31. Compare productivity of any two food crops between Tamil Nadu and India.

- The Government of Tamil Nadu lays emphasis on agricultural production and productivity.
- As a result, Tamil Nadu tops in productivity, in food crops as well as non-food crops, among the States in India.
- Tamil Nadu ranks first in maize, cumbu, groundnut, oil seeds and cotton;
- Second in rice and coconut,
- Third in sugarcane, sunflower and jowar.

32. Explain the prospect for development of tourism.

- Tamil Nadu has since ancient past been a hub for tourism.
- In recent years, the state has emerged as one of the leading tourist destinations for both domestic and foreign tourists.
- Tourism in Tamil Nadu is promoted by Tamil Nadu Tourism Development Corporation (TTDC), a Government of Tamil Nadu undertaking.
- The State currently ranks the highest among Indian States with about 25 crore arrivals .

- The annual growth rate of this industry stood at 16 per cent. Approximately 28 lakh foreign and 11 crore domestic tourists visit the State.

33. What are the renewable sources of power in Tamil Nadu?

- Tamil Nadu is in the forefront of all other Indian States in installed capacity.
- Muppandal wind farm is a renewable energy source, supplying the villagers with electricity for work.

Hydel Energy

- There are about 20 hydro electric units in Tamil Nadu. The prominent units are Hundah, Mettur, Periyar, Maravakandy, Parson Valley etc.

Solar Energy

- Tamil Nadu tops in solar power generation.
- Southern Tamil Nadu is considered as one of the most suitable regions in the country for developing solar power projects

Wind Energy

- Tamil Nadu has the highest installed wind energy capacity in India.
- The State has very high quality of off shore wind energy potential off the Tirunelveli coast and southern Thoothukudi and Rameswaram coast.

34. Describe the performance of Tamil Nadu economy in health.

- Tamil Nadu has a three – tier health infrastructure comprising hospitals, primary health centres, health units, community health centres and sub-centres.
- As of March 2015, the State had 34 district hospitals, 229 sub-divisional hospitals, 1,254 primary health centres, 7,555 Sub-centres and 313 community health centres.

PART –D 5 MARKS

35. Describe the qualitative aspects of population.

- Tamil Nadu stands sixth in population with 7.21 crore against India's 121 crore as per 2011 census.
- However, Tamil Nadu's population is higher than that of several countries according to UN Report.

Density

- The density of population which measures population per sq.km is 555 (2011) against 480 (2001).
- Tamil Nadu ranks 12th in density among the Indian States and overall it is 382 for India.

Urbanisation

- Tamil Nadu is the most urbanized state with 48.4% of urban population against 31.5% for India as a whole. The State accounts for 9.61% of total urbanites in India against 6% share of total population.

Sex ratio (Number of female per 1000 males)

- Balanced sex ratio implies improvement in quality of life of female population.

Infant Mortality Rate (mortality before completing 1 year)

- Tamil Nadu is well ahead of national average and other states in IMR.

Mortality Rate (MMR) (Mother's death at the time of delivery per 1 lakh)

Tamil Nadu has a good record of controlling MMR, ranking third with

- 79 (Kerala 61, Maharashtra 67) against national average of 159 again half of the national average.

Life Expectancy at birth

- The average period that a person may expect to live is called life expectancy.
- However, life expectancy in India still falls short of most developed and developing nations.

Literacy

- The literacy rate of Tamil Nadu is higher than in many States.

36. Explain the various sources of energy in Tamil Nadu.

Nuclear Energy

- The Kalpakkam Nuclear Power Plant and the Koodankulam Nuclear Power Plant are the major nuclear energy plants for the energy grid.

Thermal Power

- In Tamil Nadu the share of thermal power in total energy sources is very high and the thermal power plants are at Athippattu (North Chennai) Ennore, Mettur, Neyveli and Thoothukudi.

Hydel Energy

- There are about 20 hydro electric units in Tamil Nadu.
- The prominent units are Hundah, Mettur, Periyar, Maravakandy, Parson Valley.

Solar Energy

- Tamil Nadu tops in solar power generation in India.

Wind Energy

- Tamil Nadu has the highest installed wind energy capacity in India.

- The State has very high quality of off shore wind energy potential off the Tirunelveli coast and southern Thoothukudi and Rameswaram coast.

37. Explain the public transport system in Tamil Nadu.

Road

- There are 28 national highways in the State, covering a total distance of 5,036 km.
- The State has a total road length of 167,000 km, of which 60,628 km are maintained by Highways Department.
- It ranks second in India with a share of over 20% in total road projects under operation in the public-private partnership (PPP) model.

RAIL

- Tamil Nadu has a well-developed rail network as part of Southern Railway, Headquartered at Chennai.
- The present Southern Railway network extends over a large area of India's Southern Peninsula, covering the States of Tamil Nadu, Kerala, Puducherry, minor portions of Karnataka and Andhra Pradesh.

Air

- Tamil Nadu has four major international airports.
- Chennai International Airport is currently the third largest airport in India after Mumbai and Delhi.
- Other international airports in Tamil Nadu include Coimbatore International Airport, Madurai International Airport and Tiruchirapalli International Airport.
- It also has domestic airports at Tuticorin, Salem, and Madurai.

PORTS

- Tamil Nadu has three major ports; one each at Chennai, Ennore, and Tuticorin, as well as one intermediate port in Nagapattinam, and 23 minor ports.
- The ports are currently capable of handling over 73 million metric tonnes of cargo annually (24 per cent share of India).
- All the minor ports are managed by the Tamil Nadu Maritime Board, Chennai Port.