XI – ECONOMICS

Name :

Class :   **Sec** :

School :

INDEX

BLUE STARS HIGHER SECONDARY SCHOOL
XI – ECONOMICS

UNIT 1 INTRODUCTION TO MICRO - ECONOMICS

MODEL QUESTIONS

PART - A

MULTIPLE CHOICE QUESTIONS.

1. 'Economics is a study of mankind in the ordinary business of life' - It is the statement of.   [BEQ]
   (a) Adam Smith   (b) Lionel Robbins
   (c) Alfred Marshall   (d) Samuelson
   [Ans. (c) Alfred Marshall]

2. The basic problem studied in Economics is ____
   (a) Unlimited wants   [BEQ] [QY-2018]
   (b) Unlimited means
   (c) Scarcity
   (d) Strategy to meet all our wants
   [Ans. (c) Scarcity]

3. Micro Economics is concerned with ____
   (a) The economy as a whole   [First Mid-2018]
   (b) Different sectors of an economy
   (c) The study of individual economic units behaviour
   (d) The interactions within the entire economy
   [Ans. (c) The study of individual economic units behaviour]

4. Which of the following is a micro economics statement?   [BEQ] [Govt. MQP-2018]
   (a) The real domestic output increased by 2.5 percent last year
   (b) Unemployment was 9.8 percent of the labour force last year
   (c) The price of wheat determines its demand
   (d) The general price level increased by 4 percent last year
   [Ans. (c) The price of wheat determines its demand]

5. Find the odd one out :
   [BEQ] [Govt. MQP-2018; First Mid-2018; QY-2018]
   (a) "An Inquiry into the nature and the causes of the Wealth of Nations".
   (b) "Principles of Economics"
   (c) "Nature and Significance of Economic science"
   (d) "Ceteris Paribus" [Ans. (d) "Ceteris Paribus"]

6. The equilibrium price is the price at which
   (a) Everything is sold
   (b) Buyers spend their money
   (c) Quantity demanded equals quantity supplied
   (d) Exess demand is zero
   [Ans. (c) Quantity demanded equals quantity supplied]

7. Author of "An Inquiry into the Nature and Causes of Wealth of Nations"
   (a) Alfred Marshall   (b) Adam Smith
   (c) Lionel Robbins   (d) Paul A Samuelson
   [Ans. (b) Adam Smith]

8. "Economics studies human behaviour as a relationship between ends and scarce means which have alternative uses" is the definition of economics of
   (a) Lionel Robbins   (b) Adam Smith
   (c) Alfred Marshall   (d) Paul A Samuelson
   [Ans. (a) Lionel Robbins]

9. Who is the father of Economics?   [BEQ] [HY-2018]
   (a) Max Muller   (b) Adam Smith
   (c) Karl Marx   (d) Paul A Samuelson
   [Ans. (b) Adam Smith]

10. "Economics is a science" the basis of this statement is   [BEQ]
    (a) Relation between cause and effect
    (b) Use of dedective method and inductive method for the formations of laws
    (c) Experiments
    (d) All of the above   [Ans. (d) All of the above]

11. Utility means
    (a) Equilibrium point at which demand and supply are equal
    (b) Want - satisfying capacity of goods and services
    (c) Total value of commodity.
    (d) Desire for goods and services
    [Ans. (b) Want - satisfying capacity of goods and services]

12. A market is
    (a) Only a place to buy things
    (b) Only a place to sell things
    (c) Only a place where prices adjust
    (d) A system where persons buy and sell goods directly or indirectly
    [Ans. (d) A system where persons buy and sell goods directly or indirectly]

13. Which one of the following is not a point in the Welfare Definition of Economics?
    (a) Study of ordinary man
    (b) Economics does not focus on wealth alone
    (c) Economics is the study of material welfare
    (d) Economics deals with unlimited wants and limited means
    [Ans. (d) Economics deals with unlimited wants and limited means]

14. Growth definition takes into account
    (a) The problem of choice in the dynamic frame work of Economics.
    (b) The problem of unlimited means in relation to wants
    (c) The production and distribution of wealth
    (d) The material welfare of human beings
    [Ans. (a) The problem of choice in the dynamic frame work of Economics.]

15. Which theory is generally included under micro economics?
    (a) Price Theory   (b) Income Theory
    (c) Employment Theory   (d) Trade Theory
    [Ans. (a) Price Theory]

16. _____ have exchange value and their ownership rights can be established and exchanged
    (a) Goods   (b) Services
    (c) Markets   (d) Revenue
    [Ans. (a) Goods]

17. Identify the correct characteristics of utility [BEQ]
    (a) It is equivalent to 'usefulness'
    (b) It has moral significance
    (c) It is same as pleasure
    (d) It depends upon consumer's mental attitude
    [Ans. (d) It depends upon consumer's mental attitude]

18. Who has given scarcity definition of economic?
    (a) Adam Smith   (b) Marshall
    (c) Robbins   (d) Robertson
    [Ans. (c) Robbins]

19. The process of reasoning from particular to general is   [First Mid-2018]
    (a) Deductive method   (b) Inductive method
    (c) Positive economics (d) Normative economics
    [Ans. (b) Inductive method]

20. Total revenue is equal to total output sold multiplied by
    (a) Price   (b) Total cost
    (c) Marginal revenue   (d) Marginal cost
    [Ans. (a) Price]

PART - B

ANSWER THE FOLLOWING QUESTIONS IN ONE OR TWO SENTENCES.

21. What is meant by Economics?   [BEQ]
Ans. (i) The word 'Economics' comes from the ancient greek oikonomikos.
    (ii) The term 'Economics' means "Management of households".
    (iii) The 'Political Economy' is renamed as economics.

22. Define Micro economics.
Ans. (i) Micro economics is the study of the economic actions of small group of individuals say households, firms, or industries.
    (ii) It studies how business firms operate under different market conditions and how the combined actions of buyers and sellers determine prices.

23. What are goods?
Ans. (i) In Economics, the term 'goods' and 'services' also implies, unless specified otherwise.
    (ii) Goods are also called 'products', 'commodities', 'things' etc.
    (iii) Goods and services satisfies human wants.

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24. Distinguish goods from services.

[BEQ] [First Mid-2018; QY-2018]

Ans.

S. No.	Goods	Services
1	Goods are produced	Services are performed
2	Goods are tangible and homogeneous in nature	Services are intangible and heterogeneous in nature
3	Goods are physical things and involves production	Services are more like a process

25. Name any two types of utility.

Ans. (i) Time Utility *[BEQ] [First Mid-2018; HY-2018]*

(ii) Place Utility

26. Define Positive economics.

Ans. (i) Positive science deals with what it is.

(ii) Which means analyses a problem on the basis of facts and examines its causes.

(iii) **For example :** at the time of a price increase, its causes are analysed.

27. Give the meaning of deductive method.

Ans. (i) Deductive method means deriving conclusions from general truths.

(ii) It takes few general principles and applies them to draw conclusions.

(iii) It is also called as **analytical (or) abstract method.**

PART - C

ANSWER THE FOLLOWING QUESTIONS IN ONE PARAGRAPH.

28. Explain the scarcity definition of Economics and assess it. *[BEQ] [First Mid-2018]*

Ans. Lionel Robbins published a book "An Essay on the Nature and Significance of Economic Science" in 1932. According to him, "Economics is a science which studies human behaviour as a relationship between ends and scarce means which have alternative uses".

Major features of Robbins' definition are :

(i) Human beings have **unlimited number of wants.**

(ii) Human wants are unlimited but supply is not sufficient so it become **scarcity.**

(iii) The scarcity of a commodity is to be considered only in relation to its demand.

(iv) The scarce means are capable of having alternative uses.

Criticism :

(i) Robbins **does not make any distinction between goods conductive to human welfare** and goods that are not.

(ii) In the production of rice and alcoholic drink, scarce resources are used.

(iii) Robbins' definition doesn't cover the theory of **economic growth and development.**

29. What are the crucial decisions involving 'What is produced'? *[QY-2018]*

Ans. (i) Whether to produce more food or more luxury goods.

(ii) Whether to have more agricultural goods or industrial goods.

(iii) Whether to use more resources in education and health or more in military services.

(iv) Whether to have more consumption goods or investment goods.

(v) Whether to spend more on basic education or higher education.

30. Explain different types of economic activities. *[HY-2018]*

Ans. Economic activities are related to Production, Distribution, Exchange and Consumption of goods and services.

(i) **Consumption :** It serves as the starting point of economic activity.

(ii) **Production :** The primary aim of the economic activity is the production of goods and services make them available to consumer.

(iii) **Exchange :** "Human activities which are performed in **exchange for money**".

(iv) **Distribution :** The produced wealth has to be distributed among the cooperating factors.

31. Elucidate different features of services.

Ans. Four features of services are,

(i) **Intangible** : Intangible things are not physical objects but exist in connection to other things.

For Example : Brand Image, Goodwill etc.

(ii) **Heterogeneous** : A single type services yields multiple experiences

For Example : Music etc.

(iii) **Inseparable from their makers** : Services are inextricably connected to their makers.

For Example : Labour

(iv) **Perishable** : Services cannot be stored as inventories like assets.

For Example : Cricket Match.

32. What are the important features of utility?

Ans. (i) Utility is psychological

(ii) Utility is not equivalent to usefulness

(iii) Utility is personal and relative.

(iv) It is the function of the intensity of human want.

(v) Utility cannot be measured objectively.

(vi) Utility has no ethical or moral significance.

33. Distinguish between micro economics and macro economics. [BEQ] [Govt. MQP-2018; First Mid-2018]

Ans.

Sl. No.	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.	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 investments, etc.
2	It takes into account small components of the whole economy.	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.	It deals with general price-level in any economy.

Sl. No.	Micro Economics	Macro Economics
4	It is known as price theory.	It is also known as the income theory.
5	It is concerned with the optimization goals of individual consumers and producers.	It is concerned with the optimization of the growth process of the entire economy.

34. Compare positive economics and normative economics. [BEQ]

Ans.

Sl. No.	Positive Economics	Normative Economics
1	Positive science deals with 'what it is'	Normative science concerned with 'what ought to be'.
2	It analyses problem on the basis of facts and examines its causes	Here the conclusions and results are not based on facts, but on different considerations.
3	Positive science, would be looked into why and how?	Normative science it would be seen whether good or bad.

PART - D

ANSWER THE FOLLOWING QUESTIONS IN ABOUT A PAGE.

35. Compare and contrast various definitions of Economics. [Govt. MQP-2018; QY-2018]

Ans. Marshall's Definition vs. Robbin's Definition

Marshall's Definition	Robbin's Definition
"Economics is the study of man 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 material requisites of well being.	"Economic is the science which studies human behaviour as a relationship between multiple ends and scarce means, which have alternative uses".

Similarities between Robbins & Marshall's Definition.

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Human Behaviour :

(i) Both the definitions are concerned with human behaviour.

(ii) Marshall's and Robbin's definitions are concentrate on optimization.

(iii) According to Marshall, wealth is the basic source of maximisation of material welfare. Robbins is of the opinion that maximize our satisfaction by scarce resources.

Differences between Marshall's & Robbins Definition.

Economic activity - Material / Immaterial :

(i) Marshall believes in only material activities which promote material welfare.

(ii) Robbins believes in both material and immaterial activities to tackle the problem of choice.

Social Science / Natural Science :

(i) Marshall economics is a social science.

(ii) Robbins Economics is natural science like Physics, Chemistry etc.

Practical / Theoretical :

(i) Marshall's definition is practical in nature.

(ii) Robbins definition is theoretical in nature.

Welfare / Scarcity :

(i) Marshall's definition is based on human material welfare.

(ii) Robbins definition is based on scarcity resources.

36. Explain various divisions of Economics.
[BEQ] [First Mid-2018]

Ans. Consumption, Production, Distribution, Exchange are the main divisions of economics.

Consumption :

(i) **Human** wants coming under consumption.

(ii) It serves as the starting point of economic activity.

(iii) Characteristics of human wants based on the behaviour of the consumer, the diminishing utility and consumer surplus are dealt with.

Production :

(i) It is the process of transformation of inputs into output.

(ii) This division covers the role of the factors of production.

Exchange :

(i) It is concerned with price determination in different market forms.

(ii) It covers trade and commerce.

Distribution :

(i) The produced wealth has to be distributed among the co operating factors.

(ii) Distribution studies about the pricing of factors of production.

37. Elaborate the nature and scope of Economics.

Ans. **(I) Nature of Economics:** *[HY-2018]*

1. A Law expresses a causal relation between **two or more than two phenomena.**

2. Marshall states that the Economic laws are **statement of tendencies** the laws function with cause and effect.

3. Economic laws are not as precise and certain as the laws in the physical sciences.

4. Economic laws are not inviolable

5. The use of the assumption 'other things remaining the same'

6. Economics makes the Economic laws hypothetical.

7. Laws in economics are **more exact, precise and accurate** than the other social sciences.

8. Some economic laws are simply truisms.

(II) The scope of the subject of Economics refers to on the subject-matter of Economics.

1. All human activities related to wealth constitute the subject-matter of Economics.

2. Production, consumption and capital formation are called the basic economic activities of an economy.
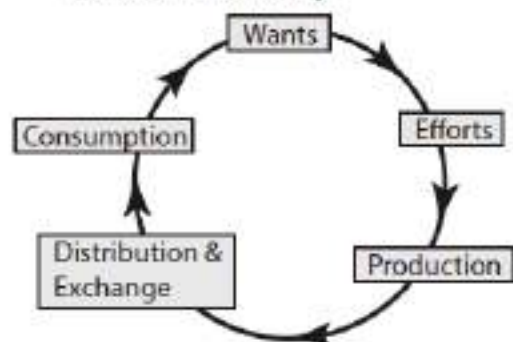
3. The flow chart give the scope of economics.

4. Economics focuses on the behaviour and interactions among economic agents, individuals and groups belonging to an economic system.

5. Human activities not related to wealth (noneconomic activities) are not treated in Economics. For example, playing cricket for pleasure, mother's child care.

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

Ans. The problem of choice between relatively scarce commodities due to limited productive resources can be illustrated with the help of a geometric device is known as production possibility curve.

Assumption :

(i) The time period does not change.

(ii) Techniques of production are fixed.

(iii) There is full employment in the economy.

(iv) Resources of production are fully employed.

(v) The law of diminishing returns operates in business.

(vi) To draw this curve we take the help of production possibility schedule, as shown below.

Production Possibility 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 in to the production of food, a maximum of 500 tons of food can be produced, given the existing technology.

Diagramatic Representation of Production Possibility Curve
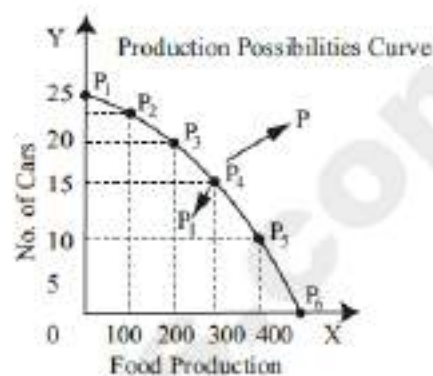
Explanation :

(i) The quantity of food is shown on X-axis and No. of Cars on the Y - axis.

(ii) The different six production possibilities are being shown as point P_1, P_2, P_3, P_4, P_5 & P_6.

(iii) The production possibility curve P_1 to P_6.

(iv) The locus of points of the different possibilities of production of two commodities which a firm or an economy can produce, with the help of given resources and the techniques of production.

(v) Points lying inside the curve like P_1 are attainable by the society but these points resources production are not fully exployed.

(vi) Shift of Production Possibility Curve the PPC shifts upward or downward due to

- The change in the supply of productive resources.

- The change in the state of technology.

- This outward shift of the PPC is the features of economic growth.

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UNIT 2 CONSUMPTION ANALYSIS

MODEL QUESTIONS

PART - A

MULTIPLE CHOICE QUESTIONS

1. Pick the odd one out *[BEQ] [First Mid-2018; HY-2018]*
   - (a) Luxuries
   - (b) Comforts
   - (c) Necessaries
   - (d) Agricultural goods

   [Ans. (d) Agricultural goods]

2. Choice is always constrained or limited by the _____ of our resources.
   - (a) Scarcity
   - (b) Supply
   - (c) Demand
   - (d) Abundance

   [Ans. (a) Scarcity]

3. The chief exponent of the cardinal utility approach was *[Govt. MQP-2018; QY-2018]*
   - (a) J.R. Hicks
   - (b) R.G.D. Allen
   - (c) Marshall
   - (d) Stigler

   [Ans. (c) Marshall]

4. Marginal utility is measured by using the formula of *[BEQ] [First Mid-2018]*
   - (a) $TU_n - TU_{n-1}$
   - (b) $TU_n - TU_{n+1}$
   - (c) $TU_n + TU_{n+1}$
   - (d) $TU_n - TU_{n+1}$

   [Ans. (a) $TU_n - TU_{n-1}$]

5. When marginal utility reaches zero, the total utility will be
   - (a) Minimum
   - (b) Maximum
   - (c) Zero
   - (d) Negative

   [Ans. (b) Maximum]

6. Gossen's first law is known as
   - (a) Law of Equi-Marginal Utility
   - (b) Law of Diminishing Marginal Utility
   - (c) Law of Demand
   - (d) Law of Diminishing returns

   [Ans. (b) Law of Diminishing Marginal Utility]

7. The basis for the law of demand is related to
   - (a) Law of Diminishing Marginal Utility
   - (b) Law of Supply
   - (c) Law of Equi-Marginal Utility
   - (d) Gossen's Law

   [Ans. (a) Law of Diminishing Marginal Utility]

8. The concept of consumer's surplus is associated with *[BEQ]*
   - (a) Adam Smith
   - (b) Marshall
   - (c) Robbins
   - (d) Ricardo

   [Ans. (b) Marshall]

9. Given potential price is Rs. 250 and the actual price is Rs. 200 find the consumer surplus.
   - (a) 375
   - (b) 175 *[First Mid-2018]*
   - (c) 200
   - (d) 50

   [Ans. (d) 50]

10. Indifference curve approach is based on *[QY-2018]*
    - (a) Ordinal approach
    - (b) Cardinal approach
    - (c) Subjective approach
    - (d) Psychological approach

    [Ans. (a) Ordinal approach]

11. The concept of elasticity of demand was introduced by *[BEQ]*
    - (a) Ferguson
    - (b) Keynes
    - (c) Adam Smith
    - (d) Marshall

    [Ans. (d) Marshall]

12. Increase in demand is caused by
    - (a) Increase in tax *[First Mid-2018; QY-2018]*
    - (b) Higher subsidy
    - (c) Increase in interest rate
    - (d) decline in population

    [Ans. (b) Higher subsidy]

13. The movement on or along the given demand curve is known as _____
    - (a) extension and contraction of demand
    - (b) shifts in the demand
    - (c) increase & decrease in demand
    - (d) all the above

    [Ans. (a) extension and contraction of demand]

14. In case of relatively more elastic demand the shape of the curve is
    - (a) Horizontal
    - (b) Vertical
    - (c) Steeper
    - (d) Flatter

    [Ans. (d) Flatter]

15. A consumer is in equilibrium when marginal utilities from two goods are

(a) Minimum   (b) Maximum

(c) Equal   (d) Increasing

[Ans. (c) Equal]

16. Indifference curve was first introduced by   *[BEQ]*

(a) Hicks   (b) Allen

(c) Keynes   (d) Edgeworth

[Ans. (d) Edgeworth]

17. Elasticity of demand in equal to one indicates

(a) Unitary Elastic Demand

(b) Perfectly Elastic Demand

(c) Perfectly Inelastic Demand

(d) Relatively Elastic Demand

[Ans. (a) Unitary Elastic Demand]

18. The locus of the points which gives same level of satisfaction is associated with

(a) Indifference Curves   (b) Cardinal Analysis

(c) Law of Demand   (d) Law of Supply

[Ans. (a) Indifference Curves]

19. Ordinal Utility can be measured by

(a) Ranking   (b) Numbering

(c) Wording   (d) None of these

[Ans. (a) Ranking]

20. The indifference curve are   *[BEQ] [First Mid-2018]*

(a) vertical   (b) horizontal

(c) positive sloped   (d) negatively sloped

[Ans. (d) negatively sloped]

PART - B

## ANSWER THE FOLLOWING QUESTIONS IN ONE OR TWO SENTENCES.

21. Define utility.   *[BEQ] [QY-2018]*

Ans. (i) Utility, the simple meaning of 'utility is usefulness'.

(ii) In Economics utility is the capacity of a commodity to satisfy human wants.

22. Mention the classifications of wants.

Ans. Goods (or) wants are broadly classified into three categories. They are,

WANTS

Necessaries   Comforts   Luxuries
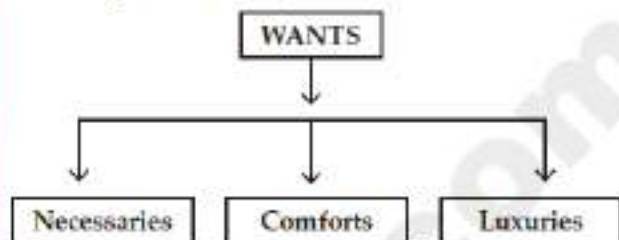
23. Name the basic approaches to consumer behaviour.

Ans. The basic approaches to consumer behaviour are

(i) Cardinal Approach

(ii) Ordinal Approach

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

Ans. (i) Perfectly Elastic Demand ($Ep = \infty$)

(ii) Perfectly Inelastic Demand ($Ep = 0$)

(iii) Relatively Elastic Demand ($Ep > 1$)

(iv) Relatively Inelastic Demand ($Ep < 1$)

(v) Unitary Elastic Demand ($Ep = 1$)

25. State the meaning of indifference curves.

[First Mid-2018]

Ans. 1. An indifference curve is the locus of all combinations of commodities from which the consumer derives the same level of satisfaction.

2. It is also called "Iso- **Utility Curve**" or "**Equal Satisfaction Curve**".

26. Write the formula of consumers surplus.

Ans. Consumer surplus = what a person is willing to pay – what he actually pay.

(OR)

Consumer's surplus = Potential price – Actual price.

Mathematically,

Consumer's surplus = TU – (P × Q)

TU = Total Utility, P = Price and Q = Quantity of the Commodity

27. What are Giffen goods? Why? *[BEQ] [First Mid-2018]*

Ans. (i) The Giffen good or inferior good is an exception to the law of demand.

(ii) A Giffen goods is typically an inferior product that does not have easily available substitutes.

(iii) The unique characteristic that an increase in price actually increases the **quantity of the good** that is demanded.

PART - C

28. Describe the feature of human wants.

Ans. (i) Wants are Unlimited

(ii) Wants become Habits

(iii) Wants are Satiable

(iv) Wants are Alternative

(v) Wants are Competitive

(vi) Wants are Complementary

(vii) Wants are Recurring

(viii) Wants vary with time, place and person.

29. Mention the relationship between marginal utility and total utility. [BEQ] [First Mid-2018; HY-2018]

Ans. (i) Total utility refers to the sum of utility of all units of a commodity consumed.

(ii) Marginal utility is the addition made to the total utility by consuming one more unit of a commodity.

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

Relationship between marginal utility and total utility

| Marginal utility	Total utility
Marginal utility declines.	Total utility increases.
Marginal utility Reaches zero	Total utility Reaches maximum
Marginal utility becomes negative	Total utility declines.

30. Explain the concept of consumer's equilibrium with a diagram. [BEQ] [First Mid-2018]

Ans. (i) The consumer reaches equilibrium at the point where the budget line is tangent on the indifference curve.

Consumer Equilibrium = $MRS_{xy} = P_x/P_y$

(ii) 'T' is the point of equilibrium as budget line AB is tangent on indifference curve IC_3 the upper most.

Consumer Equilibrium
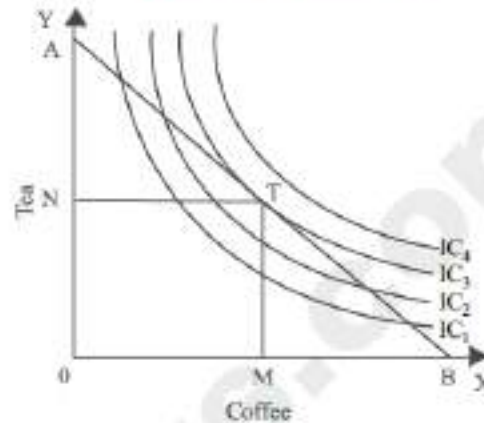
31. Explain the theory of "Consumer's surplus" [First Mid-2018]

Ans. Consumer surplus was originally introduced by classical economists and later modified by Jevons and Jule Dupit, the French Engineer Economist in 1844. But a most refined form of the concept of Consumer Surplus was given by Alfred Marshall.

Definition :

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

Assumptions :

(i) Utility can be measured

(ii) Marginal Utility of money remain constant.

(iii) Taste, income and character of consumer does not change.

Measurement :

Consumer's surplus = Potential Price – Actual Price

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

32. Distinguish between extension and contraction of demand.

Ans. (i) The changes in the quantity demanded for a commodity due to the change in its price alone are called 'Extension and Contraction of Demand'.

(ii) In other words, buying more at a lower price and less at a higher price is known as "Extension and Contraction of Demand"

33. What are the properties of indifference curves?

Ans. (i) Indifference curve must have negative slope.

(ii) Indifference curves are convex to the origin.

(iii) Indifference curve cannot intersect

(iv) Indifference curve do not touch the horizontal or vertical axis.

34. Briefly explain the concept of consumer's equilibrium.

Ans. (i) The consumer reaches equilibrium at the point where the budget line is tangent on the indifference curve.

(ii) T is the point of equilibrium as budget line AB is tangent on indifference curve IC_3 the upper most.

(iii) IC which implies maximum possible level of satisfaction.

(iv) At equilibrium point, the slope of IC refers to MRS_{xy} and the slope of BL refers to ratio of price of X to price of Y ie P_x / P_y

(v) Therefore $MRS_{xy} = P_x / P_y$

PART - D

ANSWER THE FOLLOWING QUESTIONS IN ABOUT A PAGE.

35. Explain the law of demand and its exceptions.

Ans. Law of Demand :

The Law of Demand was first stated by Augustin Cournot in 1838. Later it was refined and elaborated by Alfred Marshall.

Definitions

The Law of Demand says as "the quantity demanded increases with a fall in price and diminishes with a rise in price".

Assumptions :-

(i) The income of the consumer remains constant.

(ii) The taste, habit and preference of the consumer remain the same.

(iii) The price of other related goods should not change.

(iv) No substitute for the commodity.

(v) Demand for the commodity must be continuous.

(vi) No change in the quality of the commodity

If there is change in one of these above assumptions the law will not operate.

Table 2.4 Demand Schedule

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

Quantity Demanded (in units)
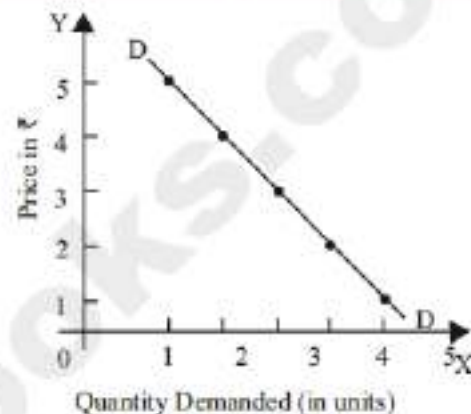
Explanation :-

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

(ii) This law states that quantity demanded of a commodity expands with fall in price and contracts with rise in price.

(iii) The law of demand states that there is an inverse relationship between the price and the quantity demanded of a commodity.

(iv) X axis represents the quantity demanded and Y axis represents the price.

(v) DD is the demand curve, which has negative slope i.e., slope downward from left to right.

Exception to the law of demand :

(i) Normally, the demand curve slopes downwards from left to right. But there are some unusual demand curves do not obey the law and reserve occurs.

(ii) A fall in price brings a contraction of demand and a rise in price brings an extension of demand.

(iii) Therefore the demand curve slopes upwards from left to right.

(iv) It is known as exceptional demand curve.

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

Ans. (i) H.H. Gossen, and Austrian Economist was the first to formulate this law in Economics in 1854.

(ii) Jevons called this law as "Gossen's first law of consumption".

Definition :-

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 :-

(i) The marginal utility of money remains constant.

(ii) The consumer should be rational and his aim is to attain maximum satisfaction with minimum expenditure.

(iii) The units of the commodity must be reasonable in size.

(iv) Uniform in character like weight, quality, taste, colour etc.

(v) Goods must be made continuously at a given period of time.

(vi) No change in the taste, habits, preferences, fashions, income and character etc.

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.

Illustrations :-

(i) Suppose a consumer wants to consume 7 apples one after another.

(ii) The utility from the first apple is 20.

(iii) The second apple will be less than that of first (say 15), the third less than that of second (say 10) and so on, finally the utility from the fifth apple becomes zero.

(iv) Utility from sixth and seventh apple are negative (or) disutility (or) disliking.

(v) This tendency is called the "The law of Diminishing marginal Utility".

Table 2.1

Number 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)
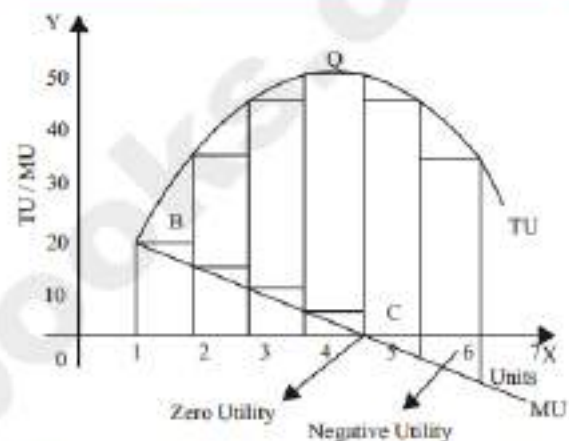
(vi) When marginal utility becomes zero, the total utility is maximum and when marginal utility becomes negative, the total utility diminishes.

37. Explain the law of Equi - marginal utility.

[BEQ] [QY-2018]

(i) The law of diminishing marginal utility extended and is called "Law of equi - marginal utility".

(ii) It is also called 'Law of substitution' 'Law of consumers equilibrium', 'Gossen Second Law' and 'Law of maximum satisfaction'.

Definition :-

Marshall defined as "If a person has a thing which 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."

Assumption :-

(i) The consumer is rational so he wants to get maximum satisfaction.

(ii) The utility is measurable.

(iii) Money remains constant.

(iv) The income of the consumer is given.

(v) There is perfect competition in the market.

(vi) The prices of the commodities are given.

(vii) The Law of diminishing marginal utility operates.

Explanation :-

(i) Consumer wants to spend his limited income on Apple and Orange.

(ii) He is said to be in equilibrium, only when he gets maximum satisfaction with his limited income.

(iii) $$\frac{\text{Marginal Utility of Apple}}{\text{Price of Apple}} = $$

$$\frac{\text{Marginal Utility of Orange}}{\text{Price of Orange}} = K$$

$$\text{ie } \frac{MU_A}{P_A} = \frac{MU_O}{P_O} = K$$

(iv) He wants to spend his entire income on Apple and Orange.

(v) The price of an Apple and Orange is Rs. 1 each.

Table

Units of commodities	Apple		Orange	
	Total utility	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
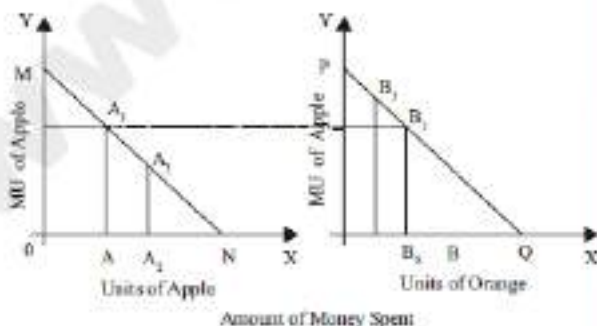
Diagram Explanation

(vi) If the consumer wants to attain maximum utility he should buy 6 units of Apples and 5 units of Oranges.

$$\text{ie } \frac{4}{1} = \frac{4}{1}$$

(vii) X - axis represent amount of money spent and Y - axis represent Marginal Utilities of Apple and Orange.

38. What are the methods of measuring elasticity of demand? [BEQ] [QY-2018]

Ans. There are four methods of measuring price elasticity of demand.

(i) **The Percentage Method :-**

(1) $$\boxed{EP = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}}$$

(2) This method is also known as ratio method.

(3) $$EP = \frac{\%\Delta Q}{\%\Delta P} = \%\Delta Q = \text{percentage change in demand}$$

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

(ii) **Total Outlay Method :-**

(1) Marshall suggested that demand is elastic or inelastic is to examine the change in total outlay of the consumer.

(2) Total Revenue = Price × Quantity

(3) $TR = P \times Q$

| Price	Quantity Demanded	Total outlay	Elasticity
150	3	450	} e > 1
125	4	500	
100	5	500	} e = 1
75	6	450	} e < 1

(iii) **Point (or) Geometrical Elasticity :-**

(1) The point elasticity of linear demand curve is shown by the ratio of the segments of the line to the **right and left of the particular point.**

(2) The demand curve is a straight line, it is said to be linear.

(3) The demand for a commodity can be elastic in one price and in elastic in another.

(4) Point elasticity $=$ $\dfrac{\text{Lower segment of the demand curve below the given point}}{\text{Upper segment of the demand curve above the given point}}$

$ep = \dfrac{L}{U}$ L = Lower Segment

U = Upper Segment
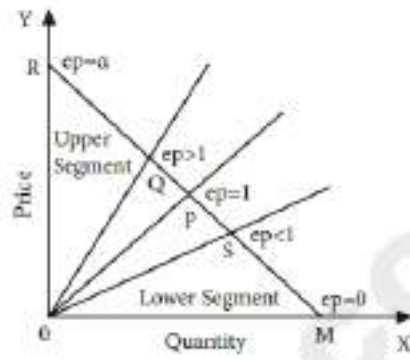
UNIT 3 PRODUCTION ANALYSIS

MODEL QUESTIONS

PART - A

MULTIPLE CHOICE QUESTIONS.

1. The primary factors of production are : [BEQ]
   (a) Labour and Organisation
   (b) Labour and Capital
   (c) Land and Capital
   (d) Land and Labour [Ans. (d) Land and Labour]

2. The man-made physical goods used to produce other goods and services are referred to as
   (a) Land   (b) Labour
   (c) Capital   (d) Organization
   [Ans. (c) Capital]

3. Formula for calculating AP is [BEQ] [HY-2018]
   (a) $\frac{\Delta TP}{N}$ (b) $\frac{\Delta TP}{\Delta N}$ (c) $\frac{TP}{MP}$ (d) $\frac{TP}{N}$
   [Ans. (d) $\frac{TP}{N}$]

4. Which factor is called the changing agent of the Society
   (a) Labourer   (b) Land
   (c) Organizer   (d) Capital
   [Ans. (c) Organizer]

5. Who said, that one of the key of an entrepreneur is "uncertainty -bearing" [BEQ]
   (a) J.B. Clark   (b) Schumpeter
   (c) Knight   (d) Adam Smith
   [Ans. (c) Knight]

6. The functional relationship between "inputs" and "outputs" is called as
   (a) Consumption Function
   (b) Production Function
   (c) Savings Function
   (d) Investment Function
   [Ans. (b) Production Function]

7. In a firm 5 units as factors produce 24 units of the product. When the number of factor increases by one, the production increases to 30 units. Calculate the Average Product
   (a) 30   (b) 6   (c) 5   (d) 24
   [Ans. (c) 5]

8. The short-run production is studied through
   (a) The Laws of Returns to scale
   (b) The Law of Variable Proportions
   (c) Iso - quants
   (d) Law of Demand
   [Ans. (b) The Law of Variable Proportions]

9. The long-run production function is explained by
   (a) Law of Demand
   (b) Law of Supply
   (c) Returns to Scale
   (d) Law of Variable Proportions
   [Ans. (c) Returns to Scale]

10. An Iso - quant curve is also known as [BEQ]
    (a) Inelastic Supply Curve
    (b) Inelastic Demand Curve
    (c) Equi Marginal Utility
    (d) Equal Product Curve
    [Ans. (d) Equal Product Curve]

11. Mention the economies reaped from inside the firm
    (a) financial   (b) technical
    (c) managerial   (d) all of the above
    [Ans. (d) all of the above]

12. Cobb - Douglas production function assumes.
    (a) Increasing returns to scale
    (b) Diminishing returns to scale
    (c) Constant returns to scale
    (d) All of the above
    [Ans. (c) Constant returns to scale]

13. Name the returns to scale when the output increases by more than 5% for a 5% increase in the inputs,
    (a) Increasing returns to scale
    (b) Decreasing returns to scale
    (c) Constant returns to scale
    (d) All of the above
    [Ans. (a) Increasing returns to scale]

14. Which of the following is not a characteristic of land? *[BEQ] [QY-2018]*
    (a) It limited supply
    (b) It is mobile
    (c) Heterogeneous
    (d) Gift of Nature
    [Ans. (b) It is mobile]

15. Product obtained from additional factors of production is termed as
    (a) Marginal product
    (b) Total product
    (c) Average product
    (d) Annual product
    [Ans. (a) Marginal product]

16. Modern economists have propounded the law of
    (a) Increasing returns
    (b) Decreasing returns
    (c) Constant returns
    (d) Variable proportions
    [Ans. (a) Increasing returns]

17. Producer's equilibrium is achieved at the point where :
    (a) Marginal rate of technical substitution (MRTS) is greater than the price ratio
    (b) MRTS is lesser than the price ratio
    (c) MRTS and price ratio are equal to each other
    (d) The slopes of Iso quant and Iso cost lines are different
    [Ans. (c) MRTS and price ratio are equal to each other]

18. The relationship between the price of a commodity and the supply of commodity is
    (a) Negative
    (b) Positive
    (c) Zero
    (d) Increase
    [Ans. (b) Positive]

19. If average product is decreasing, then marginal product *[QY-2018]*
    (a) must be greater than average product
    (b) must be less than average product
    (c) must be increasing
    (d) both a and c
    [Ans. (b) must be less than average product]

20. A production function measures the relation between ____.
    (a) input prices and output prices
    (b) input prices and the quantity of output
    (c) the quantity of inputs and the quantity of output
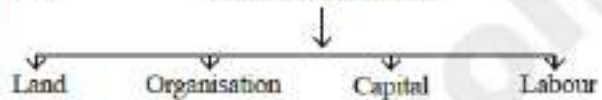   (d) the quantity of inputs and input prices
    [Ans. (c) the quantity of inputs and the quantity of output]

PART – B

ANSWER THE FOLLOWING QUESTIONS IN ONE OR TWO SENTENCES.

21. Classify the factors of production.

    Ans.
    Factors of Production
    Land — Organisation — Capital — Labour

22. Define Labour.

    Ans. 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.

    Ans. 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. *[BEQ]*

    Ans. (i) Marginal product is the addition or the increment made to the total product when one more unit of the input is employed.

    (ii) In other words, it is the ratio of the change in the total product to the change in the units of the input.

    (iii) $MP = \Delta TP / \Delta N$ or $MP_n = TP_n - TP_{n-1}$

25. What is Iso- cost line?

    Ans. (i) The iso - cost line is an important component in analysing producer's behaviour.

    (ii) The iso-cost line illustrates all the possible combinations of two factors that can be used at given costs and for a given producer's budget.

    (iii) It is otherwise called as "Iso-Price line" or "Iso-income line" or "Iso-expenditure line" or "Total outlay curve".

26. What are conditions for producer's equilibrium? *[QY-2018]*

    Ans. The two conditions that are to be fulfilled for the attainment of producer equilibrium.

    (i) The Iso - cost line must be tangent to iso - quant curve.

    (ii) At point of tangency, the Iso - quant curve must be convex to the origin or $MRTS_{LK}$ must be declining.

27. What are the reasons for upward sloping supply curve? *[HY-2018]*

Ans. (i) The price of the commodity increases, the quantity supply of the commodity is also increases.

(ii) Thus the supply curve has a positive slope from left to right.

PART - C

ANSWER THE FOLLOWING QUESTIONS IN ONE PARAGRAPH.

28. What are the characteristics of land?

Ans. (i) Land is a primary factor of production.

(ii) Land is a passive factor of production.

(iii) Land is the free gift of nature.

(iv) Land has no cost of production.

(v) Land is fixed or inelastic in supply.

(vi) Land is permanent.

(vii) Land is immovable.

(viii) Land is heterogeneous as it differs in fertility

29. What are the factors governing elasticity of supply?

Ans. Factors governing elasticity of supply are

(i) Nature of the commodity

(ii) Cost of production

(iii) Technical condition

(iv) Time factor

30. What are the functions of Entrepreneur? *[BEQ]*

Ans. (i) **Initiation :**
An organizer is the initiator of the business,

(ii) **Innovation :**
A successful entrepreneur is always an innovator.

(iii) **Coordination :**
An organizer applies a particular combination of the factors of production

(iv) **Control, Direction and Supervision :**
An organiser controls so that nothing prevents the organisation from achieving its goal

(v) **Risk-taking and Uncertainty-bearing :**
Risks may be insured but uncertainties cannot be insured.

31. State and explain the elasticity of supply. *[QY-2018]*

Ans. (i) Elasticity of supply may be defined as the degree of responsiveness of change in supply to change in price on the part of sellers.

(ii) $e_s = \dfrac{\Delta Q_s}{Q_s} / \dfrac{\Delta P}{P}$; $e_s = \dfrac{\Delta Q_s}{\Delta P} \times \dfrac{P}{Q_s}$

(iii) Q = Quantity, P = Price, Δ = Changes.

32. Bring out the relationship among Total, Average and Marginal Products. *[Govt. MQP-2018]*

**Ans.** 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 begining 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.

Ans. Introduction

(i) Producer equilibrium implies the situation where producer maximizes his output.

(ii) It is also known as optimum combination of the factors of production.

(iii) Producer's attain equilibrium (or least cost combination of factors is attained by the firm) where the iso-cost line is tangent to an iso product curve.

Producer's Equilibrium
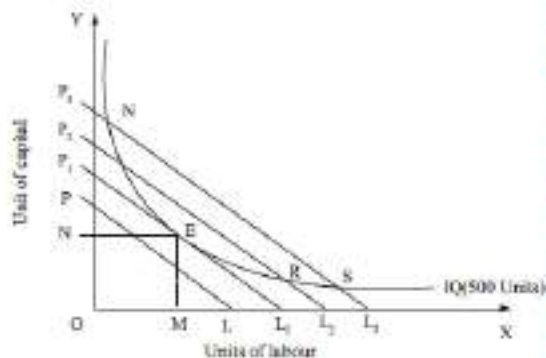
(iv) In the above figure, profit of the firm (or the producer) is maximised at the point of equilibrium E.

(v) At the point of equilibrium, the slope of the iso cost line is equal to the slope of iso product curve.

(vi) Slope of ISO quant curve = Slope of ISO cost curve

(vii) At point E, the firm employs OM units of labour and ON units of capital.

34. State the Cobb-Douglas Production Function.
[BEQ] [QY-2018; HY-2018]

Ans. (i) The Cobb - Douglas production function was developed by **charles W.Cobb and Paul H. Douglas.**

(ii) The production function explains that with the proportionate increase in the factors, the output also increased in the same proportion.

(iii) It implies constant returns to scale.

(iv) Cobb Douglas production function considered only two factors like **labour and cpaital.**

(v) Labour contributes three-fourth of production and capital contributes one-fourth of production.

(vi) The elasticity of substitution between the factors is equal to one.

(vii) $Q = AL^\alpha K^\beta$

where, Q = Output; A = Positive constant; K = Capital; L = Labour, α and β are positive fractions showing the elasticity co-efficients of output for the inputs.

PART - D

ANSWER THE FOLLOWING QUESTIONS IN ABOUT A PAGE.

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

Ans. Definition :

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 increment of products will decrease, i.e the marginal products will diminish.

Assumptions:

(i) Only one factor is variable while others are held constant.

(ii) All units of the variable factor are homogeneous.

(iii) The product is measured in physical units

(iv) No change in the state of technology.

(v) No change in the price.

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

(vi) Diagram Explanation :

The number of worker is measured on, X-axis, TP$_L$, AP$_L$ and MP$_L$ are denoted on Y-axis.
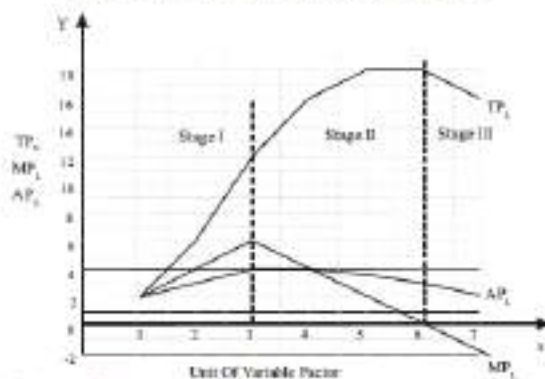
Stage - I

(i) In the first stage MP$_L$ increases up to third worker and it is higher than the average product.

(ii) So that total product is increasing at increasing rate.

State - II

(i) In the second stage, MP_L decreases up to sixth unit of labour where MP_L curve intersects the x-axis.

(ii) MP_L curve is lower than the AP_L.

(iii) TP_L increases at a decreasing rate.

Stage - III

(i) Third stage of production shows that the sixth unit of labour is marked by negative.

(ii) MP_L and AP_L continues to fall but remains positive.

(iii) TP_L declines with the employment of more units of variable factor, Labour.

36. List out the properties of iso - quants with the help of diagrams. [BEQ] [Govt. MQP-2018]

Ans. (A) Properties of Iso quant curve :

(i) The Iso - quant curve has negative slope.

(ii) It slopes downwards from left to right indicating that the factors are substitutable.

(iii) This explains the Principle of marginal rate of Technical Substitution $(MRTS_{KL})$

(iv) Constant MRTS (Straight line) and increasing MRTS (Concave) are also possible.

(B) The Iso - quant curve is convex to the origin.

(i) This means that factors of production are substitutable to each other.

(ii) The capital substituted per unit of labour goes on decreasing when the Iso quant is convex to the origin.

(C) Non inter-section of indifference curve

(i) For instance, point A lie on the Iso quants IQ_1 and IQ_2

(ii) The point C shows a higher output and the point B shows a lower level of output IQ_1.

(iii) $C = A$, $B = A$, so $C = B$; But $C > B$ which is illogical.
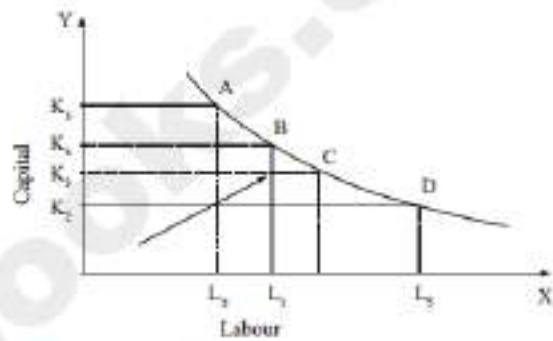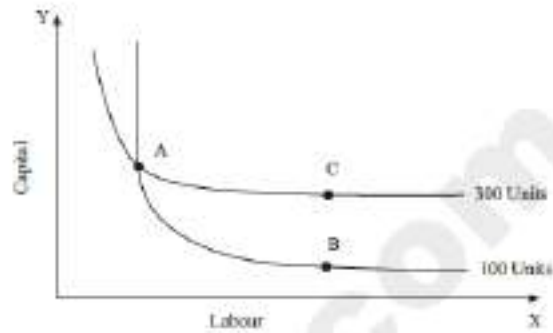
(D) An upper - Iso - quant curve represents a higher level of output:

(i) Higher IQs shows higher output and lower IQs show lower outputs.

(ii) The upper iso quant curve implies the use of more factors than the lower of more factors than the lower iso quant curve.
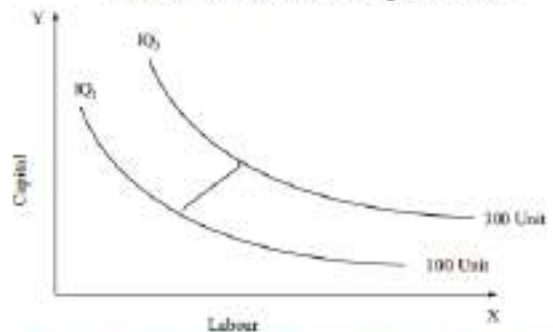
(E) ISO - quant curve does not touch either x axis or y axis :

No Iso quant touches the X axis or Y axis because, IQ_1, only capital is used and in IQ only labour is used.
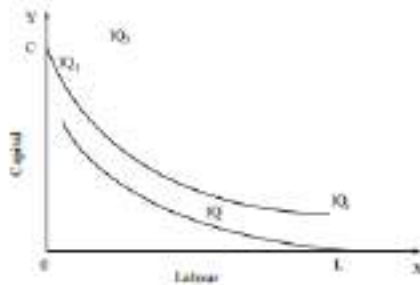
37. Elucidate the Laws of Returns to scale. Illustrate.

Ans. Laws of return to scale   [QY-2018; HY-2018]

(i) In the long - run, there is no difference between fixed factor and variable factor in the sense that all factors are variable.

(ii) 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 :

(i) All the factors of production are variable but organization is fixed.

(ii) There is no change in technology.

(iii) There is perfect competition in the market.

(iv) Outputs or returns are measured in physical quantities.

Three Phases of Return to Scale :

(A) Increasing returns to scale:

In this case if all inputs are increased by one percent, output increase by more than one percent.
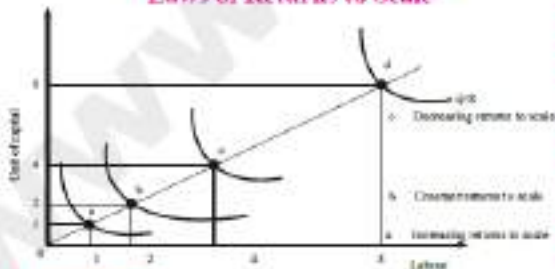
(B) Constant returns to scale:

In this case if all inputs are increased by one percent, output increasing exactly by one percent.

(C) Diminishing returns to scale:

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

Laws of Returns to Scale

Explanation :

(i) In the above figure the movement from point 'a' to point 'b' represents increasing returns to scale.

(ii) It produces more than double from q – 1 to q –3 when 2 units of labour and 2 units of capital are used.

(iii) The law of constant returns to scale is implied by the movement from the point b to point c.

(iv) 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.

38. Explain the internal and external economies of scale.   [BEQ]

Ans. I. Internal economies of scale :

(i) Internal economics of scale refers to the **advantage enjoyed by the production unit.**

(ii) For example a firm enjoying the advantage of an application of most modern machinery.

(a) **Technical economies :** When the size of the firm is large, large amount of capital can be used.

(b) **Financial economies :**
(i) Big firms can float shares in the market for capital expansion.
(ii) while small firms cannot easily float shares in the market.

(c) **Labour Economies :**
(i) Large scale production implies greater and minute division of labour.
(ii) This leads to specialisation which enhances the quality.

(d) **Managerial Economies :**
Large scale production facilitates specialisation and delegation.

(e) **Marketing Economies :**
In the context of large scale production, the producers can both buy raw - materials at cheaper cost.

(f) **Economies of survival :**
(i) Product diversification is possible when there is large scale production.
(ii) This reduces the risk in production.

II. External Economies of scale:

(i) External economies of scale refer to changes, in any factor outside the firm causing an improvement in the production process.

(ii) These are the advantages enjoyed by all the firms in the industry due to the structural growth.

(iii) Important external economies of scale are listed below.

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

UNIT 4 Cost and Revenue Analysis

Multiple Choice Questions.

1. Cost refers to ____.

   (a) Price (b) value (c) fixed cost (d) **cost of production**

2. Cost functions are derived from ____ function.

   (a) **production** (b) investment (c) demand (d) consumption

3. Money cost is also known as ____ cost.

   (a) **explicit** (b) implicit (c) social (d) real

4. Explicit cost plus implicit cost denote ____ cost.

   (a) social (b) **economic** (c) money (d) fixed

5. Explicit costs are termed as

   (a) **out of pocket expenses** (b) real cost (c) social cost (d) sunk cost

6. The costs of self-owned resources are termed as ____ cost.

   (a) real (b) explicit (c) money (d) **impilicit**

7. The cost that remains constant at all levels of output is ____ cost.

   (a) **fixed** (b) variable (c) real (d) social

8. Identify the formula of estimating average variable cost.

   (a) TC/Q (b) **TVC/Q** (c) TFC/Q (d) TAC/Q

9. The cost incurred by producing one more unit of ____ output is cost.

   (a) variable (b) fixed (c) **marginal** (d) total

10. The cost that varies with the level of output is termed as ____ cost.

    (a) money (b) **variable cost** (c) total cost (d) fixed cost

11. Wage is an example for ____ cost of the production.

    (a) fixed (b) **variable** (c) marginal (d) opportunity

12. The cost per unit of output is denoted by cost ____.

    (a) **average** (b) marginal (c) variable (d) total

13. Identify the formula of estimating average cost.

    (a) AVC/Q (b) **TC/Q** (c) TCV//Q (d) AFC//Q

14. Find total cost where TFC = 100 and TVC = 125.

    (a) 125 (b) 175 (c) **225** (d) 325

15. Long run average cost curve is also called as ____ curve.

    (a) demand (b) **planning** (c) production (d) sales

16. Revenue received from the sale of products is known as ____ revenue.

    (a) profit (b) **total revenue** (c) average (d) marginal

20

17. Revenue received from the sale of additional unit is termed as _____ revenue.

(a) profit   (b) average   **(c) marginal**   (d) total

18. Marginal revenue is the addition made to the

(a) total sales   **(b) total revenue**   (c) total production   (d) total cost

19. When price remains constant. AR will be _____ MR.

(a) equal to   (b) greater than   (c) less than   (d) not related to

20. A bookseller sole 40 books with the price of Rs. 10 each the total revenue of the seller is Rs._____

II. Very Short Answer Questions:

21. Define cost.

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

➔ Cost analysis refers to the study of behaviour of cost in relation to one or more production

22. Define cost function.

The functional relationship between cost and output is expressed as 'Cost Function'.

$$C - f(Q)$$

where, C=Cost and Q=Quantity of output.

23. What do you mean by fixed cost?

▲ Fixed Cost does not change with the change in the quantity of output.

▲ Fixed cost is also called as 'Supplementary Cost' or 'Overhead Cost'.

24. Define Revenue.

The amount of money that a producer receives in exchange for the sale of goods is known as

$$TR = P \times Q$$

revenue. In short, **revenue means sales revenue.**

25. Explicit Cost - Define.

It refers to the actual expenditures of the firm to purchase or hire the inputs the firm needs.
Examples: i) wages, ii) payment for raw material and etc.,

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

◇ It includes the efforts and sacrifices landlords in the use of land.

27. What is meant by Sunk cost?

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

✱ It is called as sunk because, they are unalterable, unrecoverable, and if once invested it should be treated as drowned or disappeared. Example : Cost of specialized equipments.

III. Short Answer questions:

28. Distinguish between fixed cost and variable cost.

Fixed Cost	Variable Cost
It refers to the cost incurred on the fixed factors of production	Its refer to the cost incurred on the variable factors of production
This cost remains constant irrespective of the levels of outputs	It varies with level of outputs
Even if the outputs is nil, fixed cost will be incurred	This cost will increase / decrease with the levels of outputs.
This is also known as supplementary costs or overhead costs	This is also known as prime costs.
Its includes:	It includes:

| a) Rent for the building
b) Interest paid on capital | a) Price of raw materials
b) Wages of labours |

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

Money Cost	Real Cost
Production cost expressed in money terms is called as money cost.	The efforts and sacrifices of all factor owners for their services in production.
It includes the expenditures such as cost of raw materials, payment of wages and salaries.	It includes the efforts and sacrifices of landlords in the use of land, capitalists
These costs are considered as out of pocket expenses.	Adam Smith regarded pains and sacrifices of labour as real cost of production.
Money costs are also called as Prime Cost or Direct Cost or Nominal Cost	It is also called opportunity cost or displacement cost

30. Distinguish between explicit cost and implicit cost.

Explicit Cost	Implicit Cost
It includes actual money expenditure incurred by a firm in hiring or buying the factors it needs in the production process	It is not actual money expenditure but is the cost of factors owned by the firm and used by the firm in its production process
It is explicitly shown in the firm's books of accounts and is thus, called accounting costs	It does not enter in the firm's books of accounts
It is a payment concept	It is a receipt concept, i.e., the payments are received by producer for supplied services
Examples: Wages, rent, interest, insurance, etc	Examples: Wages of self aborrent for self owned premises, etc.

31. Define opportunity cost and provide and example.

1. It refers to the cost of next best alternative use.

2. In other words, it is the value of the next best alternative foregone.

3. For example, a farmer can cultivate both paddy and sugarcane in a farm land.

4. Opportunity Cost is also called as 'Alternative Cost' or 'Transfer Cost'.
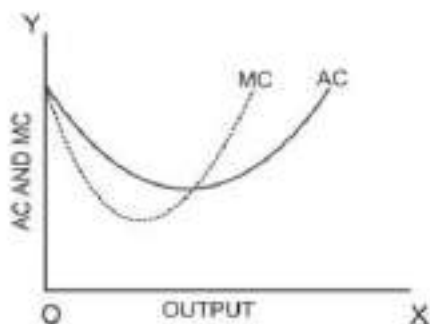
- When MC < AC, AC falls
- When MC = AC, AC is constant and at its minimum point
- When MC > AC, AC rises

32. State the relationship between AC and MC.
- When AC is falling, MC lies below AC.
- When AC becomes constant, MC also becomes equal to it.
- When AC starts increasing, MC lies above the AC.
- MC curve always cuts AC at its minimum point from below.

33. Write a short note on Marginal Revenue.
Marginal cost is the addition made to the total cost by producing one extra unit of output.
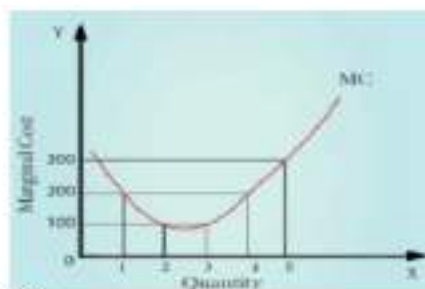
$$MC = \Delta TC / \Delta Q$$

where MC denotes Marginal Cost, ΔTC denotes change in total cost and ΔQ denotes change in total quantity.

The other method of estimating MC is :

$$MC = TC_n - TC_{n-1} \text{ or } TC_{n+1} - TC_n$$

where, 'MC' denotes Marginal Cost, 'TCn' denotes Total cost of 'n'th item, TCn-1 denotes Total Cost of 'n-1' th item, TCn+1 denotes Total Cost of n+1 th item.


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

1. In the long run all factors of production become variable.

2. The existing size of the firm can be increased in the case of long run.

3. There are neither fixed inputs nor fixed costs in the long run.

1. LAC = LTC/Q where, LAC denotes Long-Run Average Cost, LTC denotes Long- run Total Cost and Q denotes the quantity of output.

2. Th e LAC curve is derived from short- run average cost curves.

3. It is the locus of points denoting the least cost curve of producing the corresponding output.

Other names of LAC :

The LAC curve is called as 'Plant Curve' or 'Boat shape Curve' or 'Planning Curve' or 'Envelop Curve'.
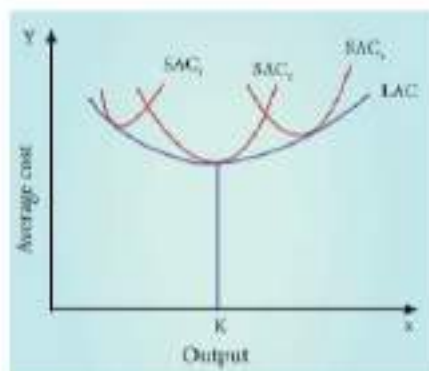
IV. Long Answer Questions:

35. If total cost = 10+Q3, find out AC, AVC, TFC, AFC when Q=5.

TC = TFC + TVC

$AVC = \dfrac{TVC}{Q}$

$AFC = \dfrac{TFC}{Q}$

$AC = \dfrac{TC}{Q}$

(i) TC = 10 + Q3. Total cost has two components TFC and TVC.

(ii) TFC = is the total fixed cost which does not change with the level of output.

(iii) It is determined by putting the value of Q.

(iv) Given the total cost function TC = 10 + Q3

Q = units of output where Q = 5

Here TFC = 10 (TFC will not change when output changes)

TC = 10 + (5)3

TC = 10 + 125

TC = 135

135 = 10 + TVC

135 – 10 = TVC

125 = TVC

TVC =125, TC = 135, therefore TFC ?

TC = TFC + TVC

135 = x + 125

135 - 125 = 10

$\boxed{\text{TFC} = 10}$

$AFC = \dfrac{TFC}{Q}$

$AFC = \dfrac{10}{5}$

$\boxed{\text{AFC} = 2}$

$AVC = \dfrac{TVC}{Q}$

$AVC = \dfrac{125}{5}$

$\boxed{\text{AVC} = 25}$

$AC = \dfrac{TC}{Q}$

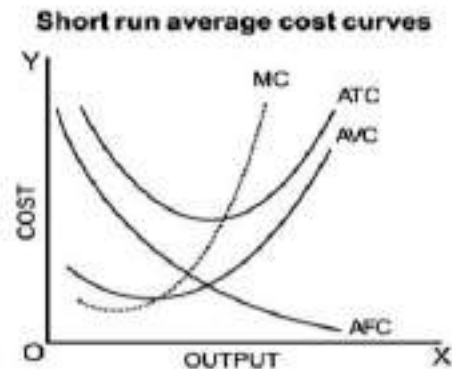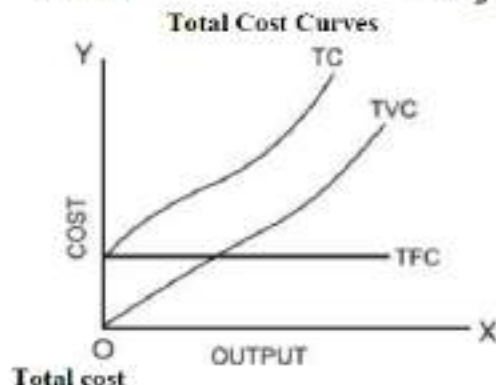$AC = \dfrac{135}{5}$

$\boxed{\text{AC} = 27}$

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

Short run cost curves:

1. TFC   - Total Fixed Cost Curve
2. TVC   - Total Variable Cost Curve
3. TC   - Total Cost Curve
4. AFC   - Average Fixed Cost Curve
5. AVC   - Average Variable Cost Curve
6. AC OR ATC   - Average Cost or Average Total Cost
7. MC   - Marginal Cost

Total Cost Curves   Short run average cost curves

Total cost

Total cost is the sum of total fixed cost and total variable cost.

$$TC = TFC + TVC$$

where

TC = Total cost

TFC = Total Fixed cost (cost of fixed factors)

TVC = Total variable cost (Cost of Variable Factors)

Short run average cost curves

Average Fixed Cost (AFC)

The average fixed cost is the fixed cost per unit of output. It is obtained by dividing the total fixed cost by the number of units of the commodity produced.

$$AFC = TFC / Q$$

Average Variable cost (AVC)

Average variable cost is the variable cost per unit of output. It is the total variable cost divided by the number of units of output produced.

$$AVC = TVC / Q$$

Average Total Cost or Average Cost

Average total cost is simply called average cost which is the total cost divided by the number of units of output produced.

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

Marginal Cost

Marginal cost is defined as the addition made to the total cost by the production of one additional unit of output.

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

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

Average Revenue

Average revenue is the revenue per unit of the commodity sold. It is calculated by dividing the tot: revenue by the number of units sold.
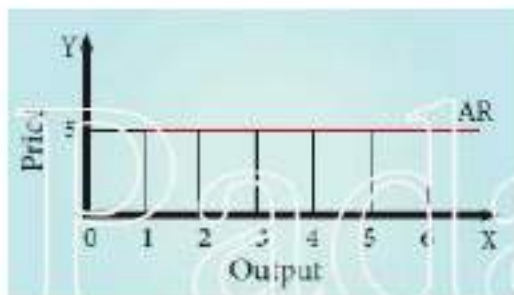
$$AR = TR / Q$$

Marginal Revenue

Marginal Revenue is the addition made to the total revenue by selling one more unit of a commodity.

$$MRn = TRn - TRn\text{-}1$$

Constant AR and MR (at Fixed Price)

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)

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
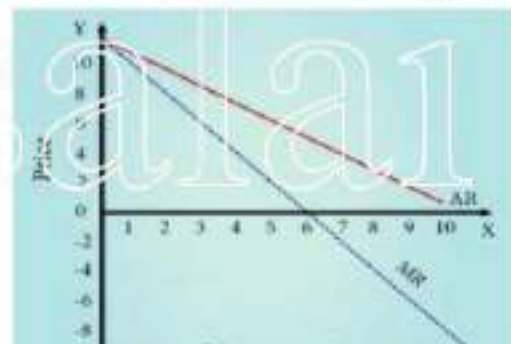
Explanation

1. If a firm is able to sell additional units at the same price then AR and MR will be constant and equal.
2. If the firm is able to sell additional units only by reducing the price, then both AR and MR will fall and be different.

UNIT 5 MARKET STRUCTURE AND PRICING

1. In which of the following is not a type of market structure price will be very high?

   (a) Perfect competition (b) Monopoly (c) Duopoly (d) Oligopoly

2. Equilibrium condition of a firm is _____

   (a) MC=MR (b) MC>MR (c) MC < MR (d) MR = Price

3. Which of the following is a feature of monopolistic competition?

   (a) One seller (b) Few sellers (c) Product differentiation (d) No entry

4. A firm under monopoly can earn _____ in the short run

   (a) Normal profit (b) Loss (c) Super normal profit (d) More loss

5. There is no excess capacity under _____

   (a) Monopoly (b) Monopolistic competition (c) Oligopoly (d) Perfect competition

6. Profit of a firm is obtained when _____

   (a) TR<TC (b) TR-MC (c) TR>TC (d) TR=TC

7. Another name of price is _____

   (a) Average Revenue (b) Marginal Revenue (c) Total Revenue (d) Average cost

8. In which type of market, AR and MR are equal _____

   (a) Duopoly (b) Perfect competition (c) Monopolistic competition (d) Oligopoly

9. In monopoly, MR curve lies below _____

   (a) TR (b) MR (c) AR (d) AC

10. Perfect competition assumes _____

    (a) Luxury goods (b) Producer goods (c) Differentiated goods (d) Homogeneous goods

11. Group equilibrium is analysed in _____

    (a) Monopolistic competition (b) Monopoly (c) Duopoly (d) Pure competition

12. In monopolistic competition, the essential feature is _____

    (a) Same product (b) Selling cost (c) Single seller (d) Single buyer

13. Monopolistic competition is a form of _____

    (a) Oligopoly (b) Duopoly (c) Imperfect competition (d) Monopoly

14. Price leadership is the attribute of _____

    (a) Perfect competition (b) Monopoly (c) Oligopoly (d) Monopolistic competition

15. Price discrimination will always lead to

    (a) Increase in output (b) Increase in profit (c) Different prices (d) 'b' and 'c'

16. The average revenue curve under monopolistic competition will be _____

    (a) Perfectly inelastic (b) Perfectly elastic (c) Relatively (d) Unitary elastic

17. Under perfect competition, the shape of demand curve of a firm is _____

    (a) Vertical (b) Horizontal (c) Negatively sloped (d) Positively sloped

18. In which market form does, an absence of competition prevail?

(a) Perfect competition　(b) **Monopoly**　(c) Duopoly　(d) Oligopoly

19. Which of the following involves maximum exploitation of consumers?

(a) Perfect competition　(b) **Monopoly**　(c) Monopolistic competition　(d) Oligopoly

20. An example of selling cost is _____

(a) Raw material cost　(b) Transport cost　(c) **Advertisement cost**　(d) Purchasing cost

II. Very Short Answer Questions:

21. Define Market.

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

22. Who is price-taker?

1.　A **price taker** is a seller who has no control to fix **prices** for a good or service.

2.　A price taker simply has to accept the market price.

23. Point out the essential features of pure competition.

a. Large Number of Buyers and Sellers　　b. Homogeneous Product and Uniform Price

c. Free Entry and Exit　　　　　　　　　d. Absence Of Transport Cost

24. What is selling cost?

Selling costs refer to those expenses which are incurred for popularizing the differentiated product and increasing the demand for it.

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

a) Perfect Competition

(a) A Competitive Firm's Demand Curve

b) Monopoly

(b) A Monopolist's Demand Curve
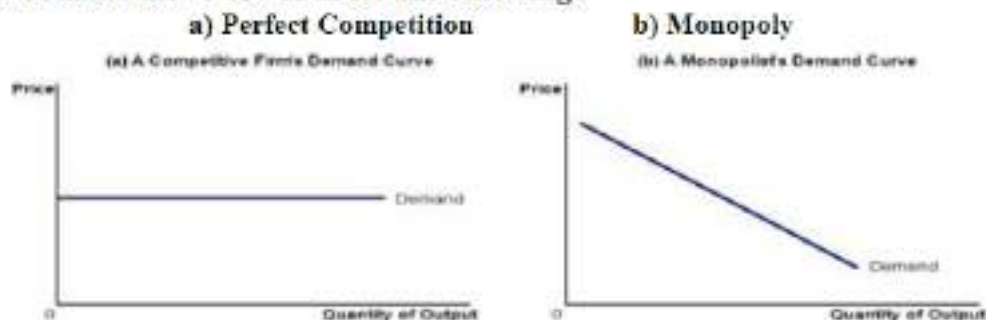
26. Mention any two types of price discrimination

(i) **Personal** – Different prices are charged for different individuals (*Ex: Railways Ticket*)

(ii) **Geographical** - Different prices are charged at different places for the same product (*Ex: same book sold in different countries at different prices*)

27. Define "Excess capacity".

A monopolistic firm produces deliberately output which is less than the optimum output that is the output corresponding to the minimum average cost.

III. Short Answer Questions:

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.

Nature of Entry of competitor	
Perfect Competition	**Monopoly**
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.	There is strict barrier for entry of any new firm;

30. Describe the degrees of price discrimination.

According to A.C.Pigou, there are three degrees of price discrimination.

(i) First degree price discrimination

A monopolist charges the maximum price that a buyer is willing to pay. Example: Auctions

(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. Example: Cinema theatres .

(iii) Third degree price discrimination

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

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

1. It was Chamberlin who introduced the analysis of selling costs.
2. Selling costs play the key role in monopolistic competition. The firms have to compete to promote their sale by spending on advertisements and publicity ads to the demand of the product.
3. In selling costs we include the salaries of sales persons, allowances to retailers to display the products etc. besides the advertisements.

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

s.no	Basis of Similarities	Perfect Competition	Monopolistic Competition
1	Number of Producers/ sellers	In numerable	Large
2	Entry / Exit	Free	Free
3	Profit	Abnormal profit in short- run, Normal profit in long-run	Abnormal profit in short-run, Normal profit in long run
4	Quantity	Very large	Substantial

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

	Firm	Industry
Meaning	A firm refers to a single production unit in an industry	An industry refers to a group of firms
Production	Producing a large or a small quantum of a commodity or service	Producing the same product or service in an economy.
Example	A single cement firm	Cement Industry (group of firms)

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. They fix the price for their product with a view to maximising their profit.

IV. Long Answer Questions:

35. Bring out the features of perfect competition.

Meaning of Perfect Competition

Perfect Competition market is that type of market in which the number of buyers and sellers is very large, all are engaged in buying and selling a homogenous product at uniform price.

Features

1. **Large Number of Buyers and Sellers**

The term, 'large number of sellers' implies that share of each individual seller is a very, very small quantum of a product.

2. **Homogeneous Product and Uniform Price**

   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.

3. **Free Entry and Exit**

   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.

4. **Absence Of Transport Cost**

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

5. **Perfect Knowledge of the Market**

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

6. **No Government Intervention**

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

35. How price and output are determined under the perfect competition?
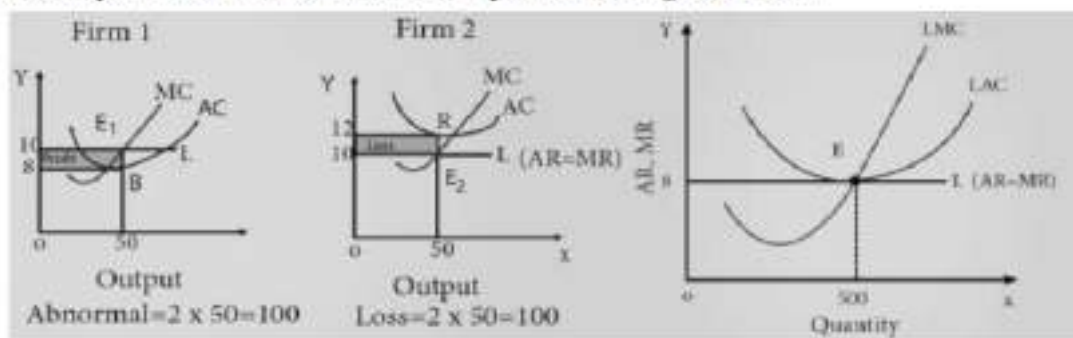
Meaning of Perfect Competition

Perfect Competition market is that type of market in which the number of buyers and sellers is very large, all are engaged in buying and selling a homogenous product at uniform price.

Important Features

1. Large Number of Buyers and Sellers
2. Free Entry and Exit
3. Homogeneous Product and Uniform Price
4. Absence Of Transport Cost

Price & Output Determination-Perfect Competition during Short Run

| AR – Average Revenue | AC – Average Cost |
| MR – Marginal Revenue | MC – Marginal Cost |

The firms under Perfect Competition take the price (10) from the industry and start adjusting their quantities produced.

For example Qd= 100 – 5P and Qs=5P. At equilibrium Qd=Qs. Therefore 100-5P=5P.

$100 = 10P$; $100/10 = P$ Qd = demand P = 10 P = Price

Qd = 100-5(10) Qs = Supply 100-50 = 50

Qs = 5(10)=50

Therefore 50 = 50

Its total revenue is 50X10=500. Its total cost is 50X12=600. Therefore, its total loss is 600-500=100.

Price = AR=MR = Minimum AC

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

The oligopolistic firms do not change their prices due to the fear of rivals' reaction.

38. Illustrate price and output determination under Monopoly.

Meaning

Monopoly is a market structure characterized by a single seller, selling the unique product with the restriction for a new firm to enter the market.
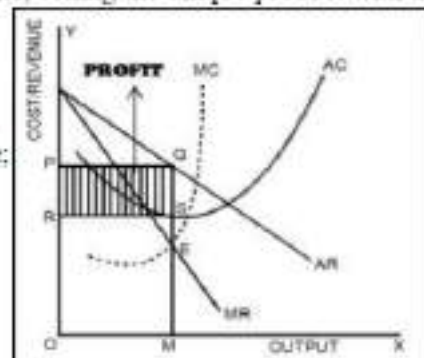
Features of Monopoly

1. There is a single producer / seller of a product;

2. The product of a monopolist is unique and has no close substitute;

3. There is strict barrier for entry of any new firm;

4. The monopolist is a price-maker

Price & Output Determination Under Monopoly

Explanation

1. The Diagram shows that MC cuts MR at E to give equilibrium output as OM.

2. At OM, the price charged is OP (we find this by extending line EM till it touches AR or demand curve).
3. Also at OM, the cost per unit is MS.
4. Therefore, profit per unit is SQ or total profit is PQRS.

> **Total profit = (Average Revenue – Average Cost) X Total output**

39. Explain price and output determined under monopolistic competition with help of diagram.

Meaning

Monopolistic competition refers to a market situation where there are many firms selling a differentiated product.

Important Features

1. Large number of buyers and many sellers.
2. Firms produce differentiated products.
3. Firms compete with each other by incurring selling cost
4. Non – price competition
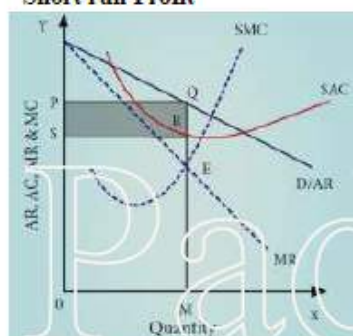
Short run Profit   **Short run Loss**   **Long run Equilibrium**
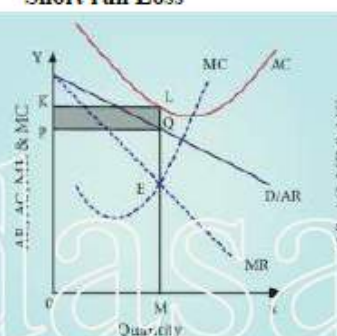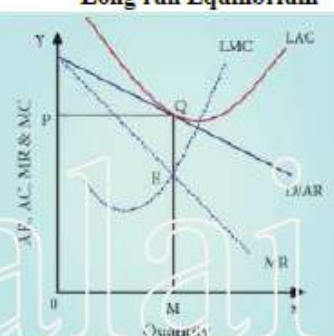
Explanation

1. The profit maximisation is achieved when MC=MR.
2. Total profit is 'PQRS'. This is super normal profit under short-run.
3. Total loss is 'PQLK'. This firm incurs loss in the short run.
4. In the long run AR curve is more elastic
5. At E' point = AR=AC and MC=MR. It means that a firm earns normal profit. AR is tangent to the Long Run Average Cost (LAC) curve at point 'Q'.

UNIT 6 Distribution Analysis

I. Multiple Choice Questions.

1. In Economics, distribution of income is among _____.

   (a) factors of production   (b) Individual   (c) firms   (d) traders

2. Theory of distribution is popularly known as _____.

   (a) Theory of product-pricing   (b) Theory of factor - pricing   (c) Theory of wages

   (d) Theory of interest

3. Rent is the reward for the use of _____.

   (a) Capital   (b) Labour   (c) Land   (d) Organization

4. The concept of Quasi-Rent is associated with _____.

   (a) Ricardo   (b) Keynes   (c) Walker   (d) Marshall

5. The Classical Theory of rent was propounded by _____.

   (a) Ricardo   (b) Keynes   (c) Marshall   (d) Walker

6. Original and indestructible power of the soil is the term used by _____.

   (a) J.S. Mill   (b) Walker   (c) Clark   (d) Ricardo

7. The reward for labour is _____.

   (a) Rent   (b) Wage   (c) Profit   (d) Interest

8. Money wages are also known as _____.

   (a) Real wages   (b) Nominal wages   (c) Original wages   (d) Transfer wages

9. Residual Claimant Theory is propounded by _____.

   (a) Keynes   (b) Walker   (c) Hawley   (d) Knight

10. The reward given for the use of capital _____.

    (a) Rent   (b) Wage   (c) Interest   (d) Profit

11. Keynesian Theory of interest is popularly known as _____.

    (a) Abstinence Theory   (b) Liquidity Preference Theory   (c) Loanable Funds Theory   (d) Agio Theory

12. According to the Loanable Funds Theory, supply of loanable funds is equal to _____.

    (a) S + BC + DH + DI   (b) I + DS + DH + BM   (c) S + DS + BM + DI   (d) S + BM + DH + DS

13. The concept of meeting unexpected expenditure according to keynes is _____.

    (a) Transaction motive   (b) Precautionary motive   (c) Speculative motive   (d) Personal motive

14. The distribution of income or wealth of a country among the individuals are

    (a) Functional distribution   (b) Personal distribution   (c) Goods distribution   (d) Service distribution

15. Profit is the reward for

    (a) Land   (b) Organization   (c) Capital   (d) Labour

16. Innovation Theory of profit was given by _____.

    (a) Hawley   (b) Schumpeter   (c) Keynes   (d) Knight

17. Quasi - rent arises in _____.

   (a) Man-made appliances (b) Home made items (c) Imported items (d) None of these

18. "Wages as a sum of money are paid under contract by an employer to a worker for services rendered" - Who said this?

   (a) Benham (b) Marshall (c) Walker (d) J.S. Mill

19. Abstinence Theory of Interest was propounded by _____.

   (a) Alfred Marshall (b) N.W. Senior (c) Bohm-Bawerk (d) Knut Wicksell

20. Loanable Funds Theory of Interest is called as _____.

   (a) Classical Theory (b) Modern Theory (c) Traditional Theory (d) Neo-Clasical Theory

II. Very Short Answer Questions:

21. What is meant by distribution?
- Distribution means division of income among the four factors of production.
- Distribution is given in terms of rent to landlords, wage to labour, interest to capital and profit to entrepreneurs.

22. Mention the types of distribution.
1. **Personal Distribution:** Personal Distribution is the distribution of national income among the individuals.
2. **Functional Distribution:** Functional Distribution means the distribution of income among the four factors of production.

23. Define 'Rent'.
According David Ricardo, 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".

24. Distinguish between real and money wages.

S.NO	Money / Nominal Wages	Real Wages
1	Money wages are referred to the wages paid in terms of money.	Real wages are the wages paid in terms of goods and services.
2	**Example:** Money received by a worker per unit of time or quantum of work etc.,	**Example:** Real Wages = Money Wages – Effect of inflation on the purchasing power.

25. What do you mean by interest?
- According Alfred Marshall," Interest is the price paid for the use of capital in any market"
- 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 other than bonds, securities, gold and etc.,.

III. Short Answer Questions:

28. What are the motives of demand for money?
- **The Transaction Motive** The transaction motive relates to the desire of the people to hold cash for the current transactions. $Mt = f(y)$
- **The Precautionary Motive** The precautionary motive relates to the desire of the people to hold cash to meet unexpected or unforeseen expenditures. $Mp = f(y)$

❖ **The Precautionary Motive** The precautionary motive relates to the desire of the people to hold cash to meet unexpected or unforeseen expenditures. $Mp = f(y)$

❖ **The Speculative Motive** The speculative motive relates to the desire of the people to hold cash in order to take advantage of market movements. $Ms = f(i)$.

29. List out the kinds of wages.

➤ *Nominal Wages or Money Wages:* Nominal wages are referred to the wages paid in terms of money

➤ *Real Wages:* Real wages are the wages paid in terms of goods and services.

➤ *Piece Wages:* Wages that are paid on the basis of quantum of work done.

➤ *Time Wages:* Wages that are paid on the basis of the amount of time.

30. Distinguish between rent and quasi-rent.

S.NO	RENT	QUASI-RENT
1.	Rent accrues to land	Quasi-rent accrues to manmade appliances.
2.	The supply of land is fixed forever.	The supply of manmade appliances is fixed for a short period only.
3.	It enters into price	It does not enter into price

31. Briefly explain the Subsistence Theory of Wages.

1. According to this theory,wage must be equal to the subsistence level of the labourer and his family
2. Subsistence means the minimum amount of food, clothing and shelter which workers and their family require for existence.
3. If workers are paid higher wages than the subsistence level, the workers would be better off and they will have large families.

32. State the Dynamic Theory of Profit.

According to J.B Clark profit is the reward for dynamic changes in society. Profit cannot arise in a static (unchanged) society.

♦ Population is increasing
♦ Volume of Capital is increasing.
♦ Methods of production are improving.
♦ Forms of industrial organization are changing.
♦ The wants of consumer are multiplying.

33. Describe briefly the Innovation Theory of Profit.

According Schumpeter profit is the reward for "innovation". Innovation means invention put into commercial practice. An innovation may consist of the following:

✠ **Introduction of a new product.**
✠ **Introduction of a new method of production.**
✠ **Opening up of a new market.**
✠ **Discovery of new raw materials**
✠ **Reorganization of an industry / firm.**

34. Write a note on Risk bearing theory of profit

According to Hawley profit is the reward for "risk taking" in business. Risk taking is an essential function of the entrepreneur and is the basis of profit.

1. Since the entrepreneur undertakes the risks, he receives profits.
2. 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.

3. It is the profit that induces the entrepreneurs to undertake such risks.

35. Explain the Marginal Productivity Theory of Distribution.

Meaning

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. In short, each factor is rewarded according to its marginal productivity.

Assumption

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.

Marginal Product

The Marginal product of a factor of production means the addition made to the total product by employment of an additional unit of that factor. The Marginal Product may be expressed as MPP, VMP and MRP.

> Marginal Physical Product (MPP)
> Value of Marginal Product = VMP = MPP x Price Marginal Revenue Product MRP = MPP x MR

MP :Under Perfect Competition

1. When there is perfect competition in the factor market,
   the firm is in equilibrium (i.e., earning maximum profits) only when MFC = MRP.

2. Hence, in the diagram, the firm reaches equilibrium at point Q by employing ON units of factors and paying OP price (NQ) where MFC = MRP.
   At the point Q, MRP = ARP.

3. The price paid to the factor (NQ) is also equal to marginal revenue product (NQ) and average revenue product (NQ).
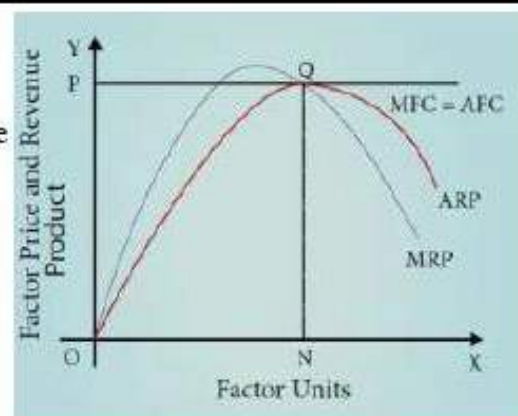
Under Imperfect Competition

1. Under imperfect competition, At the point Q, MFC = MRP, where the employer attains his maximum profit and so he stops employment of the factors at the point.

2. The total exploitation of factor by the employer is RQ X SR = "PQRS" (shaded area).

3. Thus, under imperfect competition, factor is exploited at the equilibrium position.
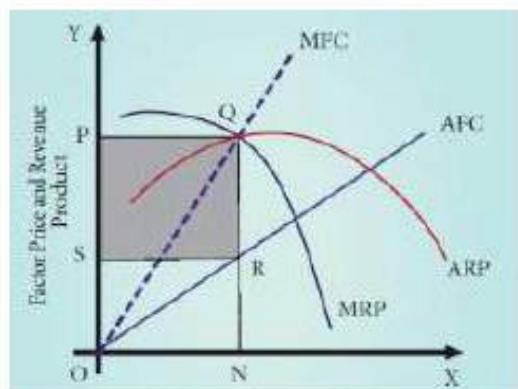
36. Illustrate the Ricardian Theory of Rent.

Definition

According to Ricardo, "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".

Assumption

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.

Schedule of Ricardian Theory of Rent

Grades of lands	Production	Surplus
A	40	40-20=20
B	30	30-20=10
C	20	20-20=0

Explanation

1. In diagram, X axis represents various grades of land and Y axis represents yield per acre (in bags).
2. OA, AB and BC are the 'A' grade, 'B' grade and 'C' grade lands respectively.
3. 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.
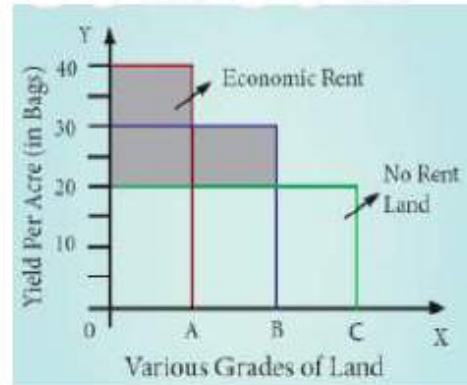4. The 'C' grade land is the "no–rent land" 'A' and 'B' grade lands are "intra – marginal lands".

37. Elucidate the Loanable Funds Theory of Interest.

Definition

According to Loanable Funds theory, 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	Supply of Loanable Funds
1. Demand for Investment (I)	1. Savings (S)
2. Demand for Consumption (C)	2. Bank Credit (BC)
3. Demand for Hoarding (H)	3. Dishoarding (DH)
	4. Disinvestment(DI)

➤ The Loanable Funds Theory, also known as the "Neo–Classical Theory",

Equilibrium

The rate of interest is determined by the equilibrium between the total demand for and the total supply of loanable funds.

Supply of loanable funds = S + BC + DH + DI Demand for loanable funds = I + C + H

$$E = S + BC + DH + DI = I + C + H$$

1. In Diagram, X axis represents the demand for and supply of loanable funds and Y axis represents the rate of interest.

2. The LD and LS curves, intersect each other at the point "E" the equilibrium point. At this point. OR rate of interest and OM is the amount of loanable funds.
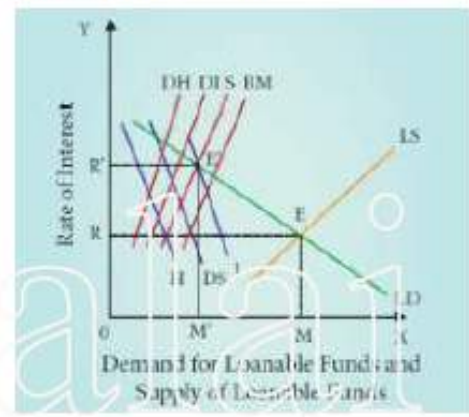
Criticisms

1. The loanable funds theory is "indeterminate" unless the income level is already known.

2. Difficult to combine real factors like savings and investment with monetary factors like bank credit

38. Explain the Keynesian Theory of Interest.

Meaning

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.

Motives of Demand for Money

1. The Transaction Motive

The desire of the people to hold cash for the current transactions (day–to–day expenses)$Mt = f(y)$

2. The Precautionary Motive

Desire of the people to hold cash to meet unexpected or unforeseen expenditures (sickness, accidents).$Mp = f(y)$

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. $Ms = f(i)$

Demand for Money and Supply of Money

Equilibrium between Demand and Supply of Money

- ⮝ The rate of interest is determined by the demand for money and the supply of money.
- ⮝ If liquidity preference increases from LP to L1P1 the supply of money remains constant,
- ⮝ The rate of interest would increase from OI to OI1.
- ⮝ The supply of money remains constants.
- ⮝ Total demand for money=Mt+Mp+Ms
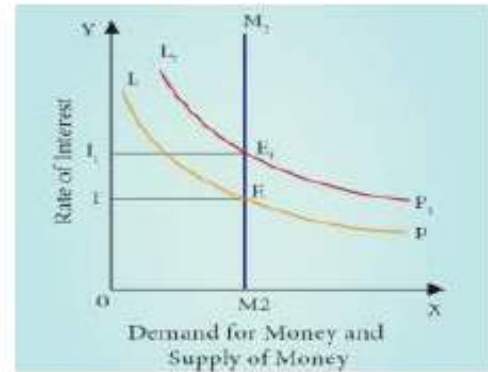
Demand for money=supply of money at equilibrium point ;

Equilibrium Point 1 = E = LP = M2 = I = Rate of Interest ... (1)

Equilibrium Point2 = E_1 = L_1P_1 = M2 = I_1 = Rate of Interest ... (2)

UNIT 7 Indian Economy

I. Multiple Choice Questions

1. The main gold mine region in Karnataka is _____

   (a) **Kolar** (b) Ramgiri (c) Anantpur (d) Cochin

2. Economic growth of a country is measured by national income indicated by _____

   (a) GNP (b) **GDP** (c) NNP (d) Per capita income

3. Which one of the following is a developed nations?

   (a) Mexico (b) Ghana (c) **France** (d) Sri Lanka

4. The position of Indian Economy among the other strongest economies in the world is _____

   (a) Fourth (b) **Sixth** (c) Fifth (d) Tenth

5. Mixed economy means _____

   (a) Private sectors and banks (b) **Co-existence of Public and Private sectors**

   (c) Public sectors and banks (d) Public sectors only

6. The weakness of Indian Economy is _____

   (a) **Economic disparities** (b) Mixed economy (c) Urbanisation

   (d) Adequate employment opportunities

7. A scientific study of the characteristics of population is _____

   (a) Topography (b) **Demography** (c) Geography (d) Philosophy

8. The year 1961 is known as _____

   (a) Year of small divide (b) **Year of Population Explosion** (c) Year of Urbanisation

   (d) Year of Great Divide

9. In which year the population of India crossed one billion mark?

   (a) 2000 (b) **2001** (c) 2005 (d) 1991

10. The number of deaths per thousand of population is called as _____

    (a) **Crude Death Rate** (b) Crude Birth Rate (c) Crude Infant Rate (d) Maternal Mortality Rate

11. The number of births per thousand population is called as _____

    (a) Crude death rate (b) Mortality rate (c) Morbidity rate (d) **Crude birth rate**

12. Density of population=_____

    (a) Land area / Total Population (b) Land area / Employment

    (c) **Total Population / Land area of the region** (d) Total Population / Employment

13. Who introduced the National Development Council in India?

    (a) Ambedkar (b) **Jawaharlal Nehru** (c) Radhakrishnan (d) V.K.R. V. Rao

14. Who among the following propagated Gandhian Economic thinkings.

    (a) Jawaharlal Nehru (b) VKRV Rao (c) **JC Kumarappa** (d) A.K.Sen

15. The advocate of democratic socialism was _____

    (a) Jawaharlal Nehru   (b) P.C. Mahalanobis   (c) Dr. Rajendra Prasad   (d) Indira Gandhi

16. Ambedkar studied the problem in the context of Indian Economy is _____

    (a) Small land holdings and their remedies   (b) Problem of Indian Currency

    (c) Economics of socialism   (d) All of them

17. Gandhian Economics is based on the Principle

    (a) Socialistic idea   (b) Ethical foundation   (c) Gopala Krishna Gokhale   (d) Dadabhai Naoroji

18. V.K.R.V Rao was a student of

    (a) J.M. Keynes   (b) Colin Clark   (c) Adam smith   (d) Alfred Marshal

19. Amartya Kumara Sen received the Nobel Prize in Economics in the year

    (a) 1998   (b) 2000   (c) 2008   (d) 2010

20. Thiruvalluvar economic ideas mainly dealt with

    (a) Wealth   (b) Poverty is the curse in the society   (c) Agriculture   (d) All of them

II. Very Short Answer Questions:

21. Write the meaning of Economic Growth

1. A country's economic growth is usually measured by National Income, indicated by Gross Domestic Product (GDP).

22. State any two features of developed economy

1. High national income   2. High per capita income
3. High standard of living   4. Full employment

23. Write the short note on natural resources

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

24. Point out any one feature of Indian Economy.

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.

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. coal. oil. gas etc.

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 (like India), 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.

❖ Uneconomic holdings with sub-divisions and fragmentation;
❖ Low levels of water availability for crops;
❖ Excess population pressure on agriculture due to the absence of a large industrial sector;
❖ Absence of capital;

III. Short Answer Questions:

28. Define Economic Development.

1. The level economic development is indicated not just by GDP, but by an increase in citizens' quality of life or well-being.
2. 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).
3. The level of economic development, nations are classified as developed and developing economics

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".
✱ This paper attempts to deal with the problem of the size of holding it affects agricultural

productivity.

30. Write on short note on village sarvodhaya.
- ✧ 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.
- ✧ **Sarvodaya** is a Sanskrit term meaning 'universal uplift' or 'progress of all'.

31. Write the strategy of Jawaharlal Nehru in India's planning.
- ⊿ The Plan was essentially an integrated approach for development.
- ⊿ The essence of planning is to find the best way to utilize all resources of manpower, of money and so on.
- ⊿ Economic growth on a self- accelerating growth.

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".
- ❖ Dr. Rao argued that whereas a primary increase in investment would take place, a subsequent, secondary and tertiary affects through the expansion of output in the consumption goods sector would not take place.
- ❖ Consequently, the multiplier process would not be operation.

33. Write a short note on Welfare Economics given by Amartya Sen.
1. 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.
2. The concept of capabilities developed by Sen has been cited as a better index of wellbeing than commodities or utilities.
3. 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.

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.*

IV. Long Answer Questions:
35. Explain strong features Indian economy
Important Strong features of 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

Around 60% of the people in India depend upon agriculture for their livelihood. In fact, about 17% of our GDP today is contributed by the agricultural sector.

3. An emerging market

India has a high potential for prospective growth. This also makes it an emerging market for the world.

4. Fast Growing Economy

India has emerged as the world's fastest growing economy in the year 2016-17 with the growth rate of 7.1% in GDP next to sChina.

5. 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.

6. Demographic dividend

The human capital of India is young. This means that India is a pride owner of the maximum

percentage of youth.

36. Write the importance of mineral resources in India.

a. Iron-Ore:

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

b. Coal and Lignite:

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.

c. Bauxite:

Major reserves are concentrated in the East Coast bauxite deposits of Odisha and Andhra Pradesh.

d. Mica:

India stands first in sheet mica production and contributes 60% of mica trade in the world.

e. Crude Oil:

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

f. Gold

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

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

- ⅄ Jawaharlal Nehru, one of the chief builders of Modern India,
- ⅄ He was a great patriot, thinker and statesman.
- ⅄ His views on economics and social problems are found in the innumerable speeches he made and in the books he wrote.
- ⅄ Jawaharlal Nehru was a firm believer in democracy.
- ⅄ Secularism is another significant contribution of Nehru to India.
- ⅄ To Jawaharlal Nehru, the Plan was essentially an integrated approach for development.
- ⅄ Jawaharlal Nehru was responsible for the introduction of planning in our country.
- ⅄ It was during his period, many IIT's and Research Institutions were established.
- ⅄ Socialism is another contribution of Nehru to India. Nehru's socialism is democratic socialism.

38. Write a brief note on the Gandhi an economic ideas.

s.no	Gandhian Thought	Gandhian Economics is based on ethical foundations.
1.	Village Republics	To Gandhi, India lives in villages. He was interested in developing the villages as self-sufficient units.
2.	On Machinery	Gandhi described machinery as 'Great sin'.
3.	Industrialism	Gandhi considered industrialism as a curse on mankind.
4.	Decentralization	He advocated a decentralized economy,
5.	Village Sarvodaya	He suggested the development of self-sufficient, self-dependent villages.
6.	The Doctrine of Trusteeship	Trusteeship provides a means of transforming the present capitalist order of society into an egalitarian one

UNIT 8 Indian Economy Before and After Independence

I. Multiple Choice Questions.

1. The arrival of Vasco da Gama in Calicut, India_____

   (a) 1498   (b) 1948   (c) 1689   (d) 1849

2. In 1614 Sir Thomas Roe was successful in getting permission from _____

   (a) Akbar   (b) Shajakan   (c) Jahangir   (d) Noorjakhan

3. The power for governance of India was transferred from the East India Company (EIC) to the British crown in

   _____.

   (a) 1758   (b) 1858   (c) 1958   (d) 1658

4. Ryotwari system was initially introduced in _____ .

   (a) Kerala   (b) Bengal   (c) Tamil Nadu   (d) Maharastra

5. First World War started in the year __ .

   (a) 1914   (b) 1814   (c) 1941   (d) 1841

6. When did the Government of India declared its first Industrial Policy?

   (a) 1956   (b) 1991   (c) 1948   (d) 2000

7. The objective of the Industrial policy 1956 was _____

   (a) Develop heavy Industries   (b) Develop agricultural sector only   (c) Develop private sector only

   (d) Develop cottage industries only

8. The Industry which was de-reserved in 1993?

   (a) Railways   (b) Mining of copper and zinc   (c) Atomic energy   (d) Atomic minerals

9. The father of Green Revolution in India was _____

   (a) M.S. Swaminathan   (b) Gandhi   (c) Visweswaraiah   (d) N.R. Viswanathan

10. How many commercial banks were nationalised in 1969?

    (a) 10   (b) 12   (c) 14   (d) 16

11. The main objective of nationalisation of banks was _____

    (a) Private social welfare   (b) Social welfare   (c) To earn profit   (d) Industries monopoly

12. The Planning Commission was setup in the year _____

    (a) 1950   (b) 1955   (c) 1960   (d) 1952

13. In the first five year plan, the top priority was given to __ Sector

    (a) Service   (b) Industrial   (c) Agriculture   (d) Bank

14. Tenth five year plan period was _____ .

    (a) 1992 - 1997   (b) 2002 - 2007   (c) 2007 - 2012   (d) 1997 - 2002

15. According to HDR (2016), India ranked __ out of 188 countries.

    (a) 130   (b) 131   (c) 135   (d) 145

16. Annual plans formed in the year __ .

    (a) 1989 - 1991   (b) 1990 - 1992   (c) 2000 - 2001   (d) 1981 - 1983

17. The Oldest large scale industry in India

   (a) **cotton**   (b) jute   (c) steel   (d) cement

18. The 14 banks were nationalized in the year

   (a) 1935   (b) 1956   (c) 1969   (d) 1959

19. The main theme of the Twelth Five Year Plan

   (a) faster and more inclusive growth   (b) growth with social Justice   (c) socialistic pattern of society

   (d) **faster, more inclusive and sustainable growth**

20. The PQLI was developed by _____

   (a) Planning Commission   (b) Nehru   (c) **Morris**   (d) Morris D. Biswajeet

II. Very Short Answer Questions:

21. What are the Phases of colonial exploitation of India?
   - Period of merchant capital
   - The period of industrial capital and
   - The period of finance capital

22. Name out the different types of land tenure existed in India before Independence.
   1. Zamindari system
   2. Mahalwari system
   3. 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,
   - Widespread unemployment among agricultural labourers in the rural areas.

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

Main Objectives 10th FYP (2002-2007)
   1. This plan aimed to double the per capita income of India in the next 10 years.
   2. It aimed to reduce the poverty ratio to 15% by 2012.
   3. Its growth target was 8.0% but it achieved only 7.2%.

26. What is the difference between HDI and PQLI ?

Points	PQLI	HDI
Meaning	It refers to overall well being of people	It refers to composite measure of economic & social progress to find out the quality of human life
Made by	Morris D.Morris in 1979	Mahabub – ul – Haq in 1990 for UNDP
Based on	PQLI is based on a) Life expectancy indicator b) Infant mortality indicator c) Basic Literacy indicator	HDI is based on a) Life expectancy indicator b) Educational attainment indicator c) Standard of Living indicator

27. Mention the indicators which are used to calculate HDI.
   1. Life expectancy at birth   2. Adult literacy rate
   3. Gross Enrollment ratio   4. GDP Percapita (PPP US $)

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28. **Explain about the Period of Merchant Capital.**
    1. The period of merchant capital was from 1757 to 1813.
    2. The only aim of the East India Company was to earn profit.
    3. India had been considered as the best hunting ground for capital by EIC
    4. The company administration succeeded in generating huge surpluses which were repatriated to England.

29. **The Handicrafts declined in India in British Period. Why?**
    ➤ 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**
    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**
    The ownership of the land was maintained by the collective body usually the villagers which served as a unit of management.
    ❖ **Ryotwari System or the Owner-Cultivator System**
    Under this system the ownership rights of use and control of land were held by the tiller himself.

31. **State the reasons for nationalization of commercial banks.**
    ➤ The main objective of nationalization was **to attain social welfare.**
    ➤ Nationalisation of banks helped to **curb private monopolies**
    ➤ Needed to **encourage the banking habit among the rural population.**
    ➤ To **reduce the regional imbalances** where the banking facilities were not available.
    ➤ **Credit facilities mainly to the agriculture sector** and its allied activities

32. **Write any three objectives of Industrial Policy 1991.**
    Objectives:
    ✶ Reduce disparities in income and wealth
    ✶ Higher employment generation
    ✶ Focus on development of small scale sector
    ✶ Rural industrialization

33. **Give a note on Twelfth Five Year Plan.**
    1. Its main theme is "Faster, More Inclusive and Sustainable Growth".
    2. Its growth rate target is 8%.
    Major Objectives:
    ✦ For growth to be more inclusive we need: Better performance in agricultural
    ✦ Faster creation of jobs, especially in manufacturing
    ✦ Stronger efforts at health, education and infrastructure

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.

IV. Long Answer Questions:

35. **Discuss about the Indian economy during British Period.**
    On the basis of the form of colonial exploitation, economic historians have divided the British period into three phases: namely,
    1. The period of merchant capital
    2. The period of industrial capital
    3. The period of finance capital

Periods under British Rule	Period	State of Indian Economy
Period of merchant capital	From 1757 TO 1813	4. Aim of the East India Company was to earn profit 5. The best hunting ground for capital 6. The officers of the company were unscrupulous and corrupt.
Period of Industrial Capital	From 1813 To 1858	4. India had become a market for British textiles. 5. Indians were exploited 6. India's traditional handicrafts were thrown out of gear.
Period of Finance Capital	From 1858 To 1947	4. Finance imperialism began to entrench itself 5. Britain decided to make massive investments in various fields 6. Railway construction policy of the British led to unimaginable as well as uneconomic.

36. Explain the role of SSIs in economic development?

1. Provide Employment
SSIs uselabour intensive techniques. Hence, they provide employment opportunities to a large number of people.

2. Bring Balanced Regional Development
SSIs promote decentralized development of industries as most of the SSIs are set up in backward and rural areas.

3. Help in Mobilization of Local Resources
SSIs help to mobilize and utilize local resources like small savings, entrepreneurial talent etc.,

4. Pave for Optimisation of Capital
SSIs require less capital per unit of output. They provide quick return on investment

5. Promote Exports
SSIs do not require sophisticated machinery.there is a great demand for goods produced by SSIs in international market.

6. Develop Entrepreneurship
SSIs help to develop a class of entrepreneurs in the society

37. Explain the objectives of nationalization of commercial banks.
- The main objective of nationalization was to attain social welfare.
- Nationalisation of banks helped to curb private monopolies in order to ensure a smooth supply of credit
- To encourage the banking habit among the rural population.
- To reduce the regional imbalances where the banking facilities were not available.
- After nationalization, new bank branches were opened in both rural and urban.
- Credit facilities mainly to the agriculture sector and its allied activities

38. Describe the performance of 12th five year plan in India.
- Its main theme is "Faster, More Inclusive and Sustainable Growth".
- Its growth rate target is 8%.

Major Objectives:
- For growth to be more inclusive we need; Better performance in agriculture
- Faster creation of jobs, especially in manufacturing
- Stronger efforts at health, education and infrastructure.

* Special plans for disadvantaged/backward regions

Major Achievements (Performance of 12th Five Year Plan)

- ❖ Implementation of Pandit Madan **Mohan** Malaviya National Mission on Teachers & Teaching.
- ❖ Uchchatar Aavishkar Abhiyan programme to promote industry-specific need-based research.
- ❖ The National Mission on Education through Information and Communication Technology for making the best use of ICT
- ❖ Rashtriya Uchchatar Shiksha Abhiyan (RUSA) has been approved which aims to achieve equity, access and excellence in higher education.
- ❖ Free and compulsory education to all children in the age group of 6 to 14 years
- ❖ Construction of school toilets under Swachh Vidyalay initiative
- ❖ Implementation of Udaan programme to ensure quality education for girl child
- ❖ Padhe Bharat Badhe Bharat initiative to increase learning outcomes in children.

UNIT 9 Development Experiences in India

I.   Multiple Choice Questions.

1. Which of the following is the way of privatisation?

    (a) Disinvestment   (b) Denationalization   (c) Franchising   **(d) All the above**

2. Countries today are to be __ for their growth.

    (a) Dependent   **(b) Interdependent**   (c) Free trade   (d) Capitalist

3. The Arguments against LPG is_____

    (a) Economic growth   (b) More investment   **(c) Disparities among people and regions**

    (d) Modernization

4. Expansion of FDI___

    (a) Foreign Private Investment   (b) Foreign Portfolio   **(c) Foreign Direct Investment**

    (d) Forex Private Investment

5. India is the largest producer of_____in the world

    (a) fruits   (b) gold   (c) petrol   (d) diesel

6. Foreign investment includes___

    (a) FDI only   (b) FPI and FFI   **(c) FDI and FPI**   (d) FDI and FFI

7. The Special Economic Zones policy was announced in____

    (a) April 2000   (b) July 2000   (c) April 1980   (d) July 1970

8. Agricultural Produce Market Committee is a ____.

    (a) Advisory body   **(b) Statutory body**   (c) Both 'a' and 'b'   (d) None of these

9. Goods and Service Tax is____

    (a) a multi point tax   (b) having cascading effects   (c) like Value Added Tax

    (d) a single point tax with the cascading effects

10. The New Foreign Trade Policy was announced in the year _____

    (a) 2000   (b) 2002   (c) 2010   **(d) 2015**

11. Financial sector reforms mainly related to___

    (a) Insurance sector   (b) Banking sector   **(c) Both a and b**   (d) Transport sector

12. The new economic policy is concerned with the following

    (a) Foreign investment   (b) Foreign technology   (c) Foreign trade   **(d) All the above**

13. The recommendation of Narashimham Committee Report was submitted in the year___

    (a) 1990   **(b) 1991**   (c) 1995   (d) 2000

14. The farmers have access to credit under Kisan credit card scheme through the following except___

    (a) Co operative banks   (b) RRBs   (c) Public sector banks   (d) Private banks

15. The Raja Chelliah Committee on Trade Policy Reforms suggested the peak rate on import duties at____.

(a) 25% (b) 50% (c) 60% (d) 100%

16. The first ever SEZ in India was set up at

(a) Mumbai (b) Chennai (c) **Kandla** (d) Cochin

17. 'The Hindu Rate of Growth' coined by Raj Krishna refers to____.

(a) **Low rate of economic growth** (b) High proportion of Hindu population (c) Stable GDP (d) None

18. The highest rate of tax under GST is _____ (as on July, 2017).

(a) 18% (b) 24% (c) 28% (d) 32%

19. The transfer of ownership from public sector to private sector is known as_____

(a) Globalization (b) Liberalization (c) **Privatization** (d) Nationalization

20. The Goods and Services Tax Act come into effect on_____

(a) 1ˢᵗ July 2017 (b) 1ˢᵗ July 2016 (c) 1ˢᵗ January 2017 (d) 1ˢᵗ January 2016

II. Very Short Answer Questions:

21. Why was structural reform implemented in Indian Economy?

Indian economy responded to the crisis by introducing a set of policies known as Structural Reforms.

22. State the reasons for implementing LPG.

Basic reasons behind liberalization, privatization could be summarized as nations believe that globalization and nation - states are not in contradiction.

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 imbalance.
- ✧ Reduction in fertilizer subsidy
- ✧ Abolition of subsidy on sugar
- ✧ Disinvestment of a part of the government holdings

26. State the meaning of Special Economic Zones.

A special economic zone (SEZ) is an area in which business and trade laws are different from the rest of the country. and their aims include: increased trade, increased investment, job creation

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

The ministry of food processing Industries (MOFPI) has implemented various components of central sector schemes, namely :
   (i) Mega Food Parks (ii) Scheme for Quality Assurance.

III. Short Answer Questions:

28. How do you justify the merits of Privatisation?
- ❖ Helps in reducing the burden on government.
- ❖ Makes the public sector units competative.
- ❖ Greater automomy for public sector units.
- ❖ Industrial growth.

29. What are the measures taken towards Globalization?

"Globalization refers to the integration of the domestic (Indian) economy with the rest of the world"

Measures of globalization

➔ Import liberalization 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.

➔ The economic activity of multinational firms and the internationalisation of technology.

30. Write a note on Foreign investment policy?

Red carpet welcome to foreign investment and foreign technology Enhanced the industrial competition and improved business, including FDI and FPI were allowed Automatic permission was granted for a specified list of high-technology and high- investment priority industries

31. Give short note on Cold storage.

➔ India is the largest producer of fruits and second largest producer of vegetables in the world.

➔ Most of the problems relating to the marketing of fruits and vegetables can be traced to their perishability.

➔ 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.

❖ To promote public private partnership in the ambit of agricultural markets.

❖ To provide market led extension services to farmer.

❖ To bring transparency in pricing system and transactions taking place in a transparent manner.

❖ To promote agricultural activities.

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**

⮡ Free imports and exports

⮡ Reducing tariffs

⮡ Liberalization of the exchange rate regime

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"

➔ The Act came into effect on 1st July 2017.*The motto is one nation, one market, one tax.*

Advantages

➢ Removing cascading tax effect

➢ Single point tax

➢ Higher threshold for registration

➢ Composition scheme for small business

IV. Long Answer Questions:

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

Meaning of Industrial Policy:

❖ Any government action aimed at affecting industry may be considered to be part of industrial policy, which makes it a limitless field.

❖ It usually means government action to influence the ownership and structure of industry and its performance, paying subsidies or providing finance, or of regulation.

Industrial Policy	Important Initiatives
Industrial Policy Resolutions 1948	1. It ushered india as a the system of mixed economy. 2. Industries were classified into four groups such as public sector, public–cum –private Sector, controlled private sector, private and co-operative sectors. 3. This policy endeavoured to protect cottage and small scale industries.
Industrial Policy Resolution 1956	1. It assured a fair treatment to the private sector 2. Support and encourage cottage and small scale enterprises 3. Indianisation of foreign concerns
The New Industrial Policy of 1991	1. Industrial licensing will be abolished for all projects except for a short list of industries 2. The policy provides for automatic clearance for import of capital goods

36. Explain the objectives and characteristics of SEZs.
Meaning of Special Economic Zones.
1. A special economic zone (SEZ) is an area in which business and trade laws are different from the rest of the country.
2. SEZs are located within a country's national borders, and their aims include: increased trade, increased investment, job creation and effective administration.

Major Objectives of SEZs
- To enhance foreign investment (especially FDI)
- To increase shares in Global Export
- To generate additional economic activity.
- To create employment opportunities.
- To develop infrastructure facilities

Main Characteristics of SEZ
1. Geographically demarked area with physical security
2. Administrated by single body/ authority
3. Streamlined procedures
4. Having separate custom area
5. Governed by more liberal economic laws.

37. Describe the salient features of EXIM policy (2015 – 2020)
1. Reduce export obligations by 25% and give boost to domestic manufacturing supporting the "Make in India" concept.
2. 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.
3. Repeated submission of physical copies of documents available on Exporter Importer Profile is not required.
4. Export obligation period for export items related to defence, military store, aerospace and nuclear energy to be 24 months.
5. 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.

UNIT 10 Rural Economy

I.   Multiple Choice Questions.

1. Which is considered as the basic unit for rural areas?

    (a) Panchayat   **(b) Village**   (c) Town   (d) Municipality

2. Which feature is identified with rural areas?

    (a) Low population density   (b) High population density   (c) Low natural resources

    (d) Low human resources

3. Identify the feature of rural economy _____

    (a) Dependence on agriculture   (b) High population density   (c) Low level of population

    (d) Low level of inequality

4. What percentage of the total population live in rural area, as per 2011 censes?

    (a) 40   (b) 50   **(c) 60**   (d) 70

5. How do you term people employed in excess over and above the requirements?

    (a) Unemployment   **(b) Underemployment or Disguised Unemployment**   (c) Full employment

    (d) Self employment

6. What is the term used to denote the coexistence of two different sectors in an economy?

    (a) Technology   (b) Dependency   **(c) Dualism**   (d) Inequality

7. The process of improving the rural areas, rural people and rural living is defined as _____

    (a) Rural economy   (b) Rural economics   (c) Rural employment   **(d) Rural development**

8. Identify the agriculture related problem of rural economy _____.

    (a) Poor communication   **(b) Small size of landholding**   (c) Rural poverty   (d) Poor banking network

9. The recommended nutritional in take per person in rural areas _____

    (a) 2100 calories   (b) 2000 calories   **(c) 2300 calories**   (d) 2400 calories

10. Indicate the cause for rural poverty _____

    (a) Lack of non - farm employment   (b) High employment   (c) Low inflation rate

    (d) High investment

11. What is the other name for concealed unemployment?

    (a) Open   **(b) Disguised**   (c) Seasonal   (d) Rural

12. How do you term the employment occurring only on a particular season?

    (a) Open   (b) Disguised   **(c) Seasonal**   (d) Rural

13. Identify an example for rural industries?

    (a) Sugar factory   **(b) Mat making industry**   (c) Cement industry   (d) Paper industry

14. How much share of rural families in India is in debt?

    (a) Half   (b) One fourth   (c) Two third   **(d) Three fourth**

15. Identify the cause for rural indebtedness in India

    (a) Poverty   (b) High population   (c) High productivity   (d) Full employment

16. In which year, Regional Rural Banks came into existence?

   (a) 1965   (b) 1970   **(c) 1975**   (d) 1980

17. Identify the year of launch of MUDRA Bank?

   (a) 1995   (b) 2000   (c) 2010   **(d) 2015**

18. Identify the year in which National Rural Health Mission was launched

   (a) 2000   **(b) 2005**   (c) 2010   (d) 2015

19. Identify the advantages of rural roads.

   (a) Rural marketing   (b) Rural employment   (c) Rural development   **(d) All the above**

20. "An Indian farmer is born in debt, lives in debt, dies in debt and bequeaths debt" - who said this?

   (a) Adam Smith   (b) Gandhi   (c) Amartya sen   **(d) Sir Malcolm Darling**

21. Define Rural Economy.
- ✧ Rural areas are geographical areas located outside towns and cities.
- ✧ Rural economy refers to villages, and rural community refers to people living in villages.

22. What do you mean by Rural Development?
- Rural Development is a strategy designed to improve the economic and social life of a specific group of people - rural poor'.
- In short, rural development is a process of improving the rural areas, rural people and rural living.

23. Rural Poverty – Define.
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.
1. In **Open Unemployment**, unemployed **persons** are identified as they **remain without work**.
2. This type of unemployment is found among **agricultural labours**.

25. What is meant by Disguised Unemployment?
In Rural areas, many are **employed below their** productive **capacity** and even if they are withdrawn from work the output will not diminish. It is called Unemployment

26. Define Cottage Industry.
Cottage industries are generally associated with agriculture and provide both part- time and full-time jobs in rural areas. Examples: Pottery, Basket Weaving, Coir products and etc.,

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 adaptation of nuclear families
- ➤ Lack of proper water supply
- ➤ Lack of good sanitation and
- ➤ Lack of proper disposal of sewage

29. Define Rural Electrification.

The main aims of rural electrification are to provide electricity to agricultural operations and to enhance agricultural productivity,

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

1. Lack of Funds

2. Inter-state Disputes

3. Uneven Terrain

4. High Transmission Loss

III. Short Answer Questions:

31. State the importance of Rural Development.

1. A major share of population contributions are very much supportive for the nation building activities.

2. The rural economy supports the urban sectors

3. Improvements in education, health and sanitation in villages can help avoid many urban problems

4. providing gainful employment in rural areas and improving overall food production.

5. rural-urban migration can be reduced

32. Explain the causes for rural development.

❖ The distribution of land is highly skewed in rural areas.

❖ Non-farm employment opportunities do not match the increasing labour force.

❖ Lack of public sector investment on human resource development.

❖ Steady increase in prices affects the purchasing power

❖ Low productivity of rural labour

33. Enumerate the remedial measures to Rural Poverty.

(i) Creation of employment opportunities.

(ii) To help the poor to become more productive.

(iii) Necessary changes in the economic structure as well as occupational structure.

(iv) Control the unproductive expenditures by villagers.

(v) Effective implementation of assets.

34. What are the remedial measures for Rural Unemployment?

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

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

3. The increased cropping intensity creates additional demand for labour.

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

35. Write a note on Regional Rural Banks.

1. Regional Rural Banks came into existence in 1975.

2. At present, there are 64 Regional Rural Banks in India.

3. To develop rural economy by providing credit and,

4. Other facilities particularly to the small and marginal farmers, agricultural labourers, artisans and small entrepreneurs

36. Mention the features of SHGs.

1. SHG is generally an economically homogeneous group formed through a process of self-selection based upon the affinity of its members.

2. Most SHGs are women's groups with membership ranging between 10 and 20.

3. SHGs have well-defined rules and by-laws, hold regular meetings and maintain records and savings and credit discipline.

4. SHGs are self-managed institutions characterized by participatory and collective decision making.

37. List out the objectives of MUDRA Bank.

1. Regulate the lender and the borrower of microfinance

2. bring stability to the microfinance system .

3. lend money to small businesses, retailers, self-help groups and individuals.

4. introduce a system of performance rating and accreditation for the first time.

IV. Long Answer Questions:

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

Meaning

Rural economy refers to villages, and rural community refers to people living in villages. **Village is an Institution:** The Village is a primary institution and it satisfies almost all the needs of the rural community.

1. **Dependence on Agriculture:** The rural economy depends much on nature and agricultural activities.

3. **Life of Rural People:** Lifestyles in villages are very simple.

Public services like education, housing, health and sanitation, transport and communication, banking, roads and markets are limited and unavailable.

4. **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:** Exists unemployment, seasonal unemployment and underemployment in rural areas.

6. **Poverty:** About 22 crores of people in rural areas are poor and live below the poverty line.

39. Discuss the problems of Rural Economy.

1. The problems related to individuals and their standard of living consist of illiteracy etc.,
2. Agricultural problems as 1.Lack of expected awareness, knowledge, skill and attitude, Unavailability of inputs and so on.
3. Poor infrastructure facilities like, water, electricity, transport, educational institutions, communication, health and etc.,
4. The economic problems related to rural areas are: inability to adopt high cost technology, high cost of inputs and so on.
5. Leadership among the hands of inactive and incompetent people, self-interest of leaders.

40. Analyse the causes for Rural Indebtedness.

Meaning

Rural indebtedness refers to the situation of the rural people unable to repay the loan accumulated over a period.

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.

UNIT 11 Tamil Nadu Economy

1. In health index, Tamil Nadu is a head of----------

   (a) Kerala   (b) Punjab   **(c) Gujarat**   (d) All the above

2. In sex ratio, Tamil Nadu ranks ----------

   (a) first   (b) second   **(c) third**   (d) fifth

3. Tamil Nadu is rich in ----------

   (a) Forest resource   **(b) Human resource**   (c) Mineral resource   (d) All the above

4. The main source of irrigation in Tamil Nadu is ----------

   (a) river   (b) tank   **(c) well**   (d) canals

5. Knitted garment production is concentrated in

   (a) Coimbatore   **(b) Tiruppur**   (c) Erode   (d) Karur

6. Which of the following is wrongly matched?

   (a) Gateway of Tamil Nadu - Thoothukudi   **(b) Home textile city - Erode**   (c) Steel city - Salem

   (d) Pump city - Coimbatore

7. Which of the following cities does not have international airport?

   (a) Madurai   (b) Tiruchirappalli   **(c) Paramakudi**   (d) Coimbatore

8. TN tops in the production of the following crops except

   (a) Banana   (b) Coconut   (c) Plantation crops   **(d) Cardamom**

9. Largest area of land is used in the cultivation of

   (a) Paddy   (b) Sugarcane   (c) Groundnut   (d) Coconut

10. In literacy rate, TN ranks

    (a) second   (b) fourth   (c) sixth   **(d) eighth**

11. In investment proposals filed by MSMEs, TN ranks

    (a) I   (b) II   (c) III   (d) IV

12. Which district in TN has the highest sex ratio?

    (a) Nagapattinam   **(b) Nilgiris**   (c) Tiruchy   (d) Thanjavur

13. Which district has the lowest child sex ratio?

    (a) Madurai   (b) Theni   **(c) Ariyalur**   (d) Cuddalore

14. Which Union Territory has the highest sex ratio?

    (a) Chandigarh   **(b) Pondicherry**   (c) Lakshadeep   (d) Andaman Nicobar

15. The largest contribution to GSDP in Tamil Nadu comes from ----------

    (a) agriculture   (b) industry   (c) mining   **(d) services**

16. In human development index, TN is ranked

    (a) second   (b) fourth   (c) sixth   **(d) seventh**

17. SPIC is located in

(a) Chennai   (b) Madurai   **(c) Tuticorin**   (d) Pudukkottai

18. The TICEL park is

(a) Rubber park   (b) Textile park   (c) Food park   **(d) Bio park**

19. In India's total cement production, Tamil Nadu ranks

(a) third   (b) fourth   (c) first   (d) second

20. The Headquarters of Southern Railway is at

(a) Tiruchirappalli   **(b) Chennai**   (c) Madurai   (d) Coimbatore

II. Very Short Answer Questions:

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

S.No	District	Sex Ratio (No. of Females per 1000 Males)
1	The Nilgiris	1041
2	Thanjavur	1031
3	Nagapattinam	1025
4	Tirunelveli	1024
5	Thoothukkudi	1024

Source : Census of India, 2011

22. Define GSDP.

1. The Gross State Domestic Product refers to the total money value of all the goods and services produced annually in the State.
2. Tamil Nadu is the second largest economy (GSDP) in India

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

1. Rice,   2. Kambu,   3. Corn,   4. Groundnt,   5. Oil Seeds   6. Sugarcane

24. What are major ports in Tamil Nadu?

Tamil Nadu has three major ports, - Chennai, Ennore, and Tuticorin

25. What is heritage tourism?

"Heritage tourism is traveling to experience the places, artifacts and activities that authentically represent the stories and people of the past and present. It includes cultural, historic, and natural resources."

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

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

27. Define Micro industry

The guidelines with regard to investment in plant and machinery or equipment as defined in the MSMED Act, 2006 are: Enterprise with a capital investment, not exceeding 25 lakhs is called micro industry

III. Short Answer Questions:

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 district with Thermal power 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.

29. Explain GSDP in Tamil Nadu.

- Tamil Nadu is the second largest economy in India with a GSDP of $ 207.8 billion in 2016-17 according to the Directorate of Economics and Statistics, Tamil Nadu.
- 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.

30. **Describe development of textile industry in Tamil Nadu.**
    1. **Tamil Nadu is the largest textile hub of India.**
    2. Tamil Nadu is known as the *"Yarn Bowl"* of the country accounting for 41% of India's cotton yarn production.
    3. Employment to an estimated 35 million people
    4. The textile sector contributes to 14% of the manufacturing sector.

31. **Compare productivity of any two food crops between Tamil Nadu and India.**
    1. The Government of Tamil Nadu lays emphasis on agricultural production and productivity.
    2. As a result, Tamil Nadu tops in productivity, in food crops as well as non-food crops, among the States in India.

32. **Explain the prospect for development of tourism.**
    1. 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.
    2. The State currently ranks the highest among Indian States with about 25 crore arrivals
    3. Approximately 28 lakh foreign and 11 crore domestic tourists visit the State.

33. **What are the renewable sources of power in Tamil Nadu?**
   1. **Hydel Energy**
       There are about 20 hydro electric units in TamilNadu. The prominent units are Hundah, Mettur, Periyar, Maravakandy, Parson Valley etc.
    2. **Solar Energy**
       Southern Tamil Nadu is considered as one of the most suitable regions in the country for developing solar power projects.
    3. **Wind Energy**
       Tamil Nadu has the highest installed wind energy capacity in India. The State has very high quality of off shore wind energy.
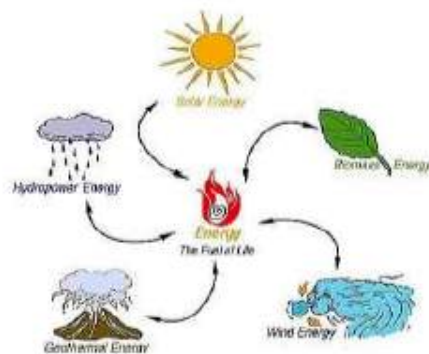
34. **Describe the performance of Tamil Nadu economy in health.**
    → Tamil Nadu has a three – tier health infrastructure comprising hospitals, primary health centres, health units, community health centres and sub-centres.
    → As of March 2015, the State had 34 district hospitals, 229 sub-divisional hospitals, 1,254 primary health centres, 7,555 Sub-centres and 313 community health centres.

IV. Long Answer Questions:
35. **Describe the qualitative aspects of population.**

    Meaning
    Quantitative aspects include composition, density, distribution, growth, movement, size, and structure of the population.

    1. **Sex ratio (Number of female per 1000 males)**
       Balanced sex ratio implies improvement in quality of life of female population. The sex ratio in Tamil Nadu is nearing balance with 995 which is far better compared to most of the States and all India level.
    2. **Infant Mortality Rate (mortality before completing 1 year)**
    3. **Maternal Mortality Rate (MMR) (Mother's death at the time of delivery per 1 lakh)**
    4. **Life Expectancy at birth** The average period that a person may expect to live is called life expectancy.
    5. **Literacy** The literacy rate of Tamil Nadu is higher than in many States.

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

- ❖ Tamil Nadu tops in power generation among the southern States
- ❖ Tamil Nadu is in the forefront of all other Indian States in installed capacity.
- ❖ There are about 20 hydro electric units in Tamil Nadu.
- ❖ The **Kalpakkam Nuclear Power Plant and the Koodankulam Nuclear Power Plant** are the major nuclear energy plants for the energy grid.
- ❖ The thermal power plants are at **Athippattu (North Chennai) Ennore, Mettur, Neyveli and Thoothukudi.**
- ❖ Tamil Nadu has the **highest installed wind energy capacity in India.**

37. Explain the public transport system in Tamvil Nadu.

Tamil Nadu Public Transport System

Tamil Nadu has a well established transportation system that connects all parts of the State.

a. **Road:** There are 28 national highways in the State, covering a total distance of 5,036 km. It ranks second in India with a share of over 20% in total road projects under operation.

b. **Rail:** Tamil Nadu has a well-developed rail network as part of Southern Railway, Headquartered at Chennai. Tamil Nadu has a total railway track length of 6,693 km and there are690 railway stations in the State.

d. **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.

UNIT 12 Mathematical Methods for Economics

I. Multiple Choice Questions

1. Mathematical Economics is the integration of

   (a) **Mathematics and Economics** (b) Economics and Statistics (c) Economics and Equations

   (d) Graphs and Economics

2. The construction of demand line or supply line is the result of using

   (a) Matrices (b) Calculus (c) Algebra (d) **Analytical Geometry**

3. The first person used the mathematics in Economic is

   (a) **Sir William Petty** (b) Giovanni Ceva (c) Adam Smith (d) Irving Fisher

4. Function with single independent variable is known as

   (a) Multivariate Function (b) Bivariate Function (c) **Univariate Function** (d) Polynomial Function

5. A statement of equality between two quantities is called

   (a) Inequality (b) Equality (c) **Equations** (d) Functions

6. An incremental change in dependent variable with respect to change in independent variable is known as

   (a) **slope** (b) Intercept (c) Variant (d) Constant

7. $(y-y_1)=M(x-x_1)$ gives the

   (a) Slope (b) **Straight line** (c) Constant (d) Curve

8. Suppose D=50 - 5P when D is zero then

   (a) **P is 10** (b) P is 20 (c) P is 5 (d) P is -10

9. Suppose D = 150 - 50P. Then, the slope is

   (a) -5 (b) 50 (c) 5 (d) **-50**

10. Suppose determinant of a matrix $\Delta = 0$, then the solution

    (a) Exists (b) **Does not exists** (c) is infinity (d) is zero

11. State of rest is a point termed as

    (a) **Equilibrium** (b) Non-Equilibrium (c) Minimum point (d) Maximum point

12. Differentiation of constant term gives

    (a) one (b) **zero** (c) infinity (d) non-infinity

13. Differentiation of X^n is

    (a) **$nx^{(n-1)}$** (b) $nx^{(n+1)}$ (c) zero (d) one

14. Fixed cost is the ___ term in cost function represented in mathematical form

    (a) Middle (b) Price (c) Quantity (d) **Constant**

15. The first differentiation of Total Revenue function gives _____

    (a) Average Revenue (b) Profit (c) **Marginal Revenue** (d) Zero

16. The elasticity of demand is the ratio of _____

(a) Marginal demand function and Revenue function

(b) Marginal demand function to Average demand function   (c) Fixed and Variable revenues

(d) Marginal Demand function and Total demand function

17. If $x + = 5$ and $x-y = 3$ then value of x

(a) 4   (b) 3   (c) 16   (d) 8

18. Integration is the reverse process of

(a) Difference   (b) Mixing   (c) Amalgamation   **(d) Differentiation**

19. Data processing is done by

(a) PC alone   (b) Calculator alone   **(c) Both PC and Calculator**   (d) Pen drive

20. The command Ctrl +M is applied for

(a) Saving   (b) Copying   **(c) Getting new slide**   (d) Deleting a slide

II. Very Short Answer Questions:

21. If $62 = 34 + 4x$ what is x?

Solution :

$$62 = 34 + 4x$$
$$62 - 34 = 4x$$
$$28 = 4x$$
$$x = \frac{28^{7}}{4_{1}}$$
$$\therefore x = 7$$

23. Find the average cost function where $TC = 60 + 10x + 15x^2$.   [BE

Solution :

$$TC = 60 + 10x + 15x^2$$

$$\boxed{\text{Formula} = \frac{TC}{x}}$$

Average cost function $= \dfrac{60}{x} + \dfrac{10x}{x} + \dfrac{15x^2}{x}$

$$= \boxed{\dfrac{60}{x} + 10 + 15x}$$

22. Given the demand function $q = 150 - 3p$, derive a function for MR.

Solution :

Demand function $q = 150 - 3p$, MR = ?

$$\frac{dq}{dp} = -3$$

$$\eta d = \frac{-p}{q}\frac{dq}{dp} = \frac{-p}{150-3p}(-3)$$

$$= \frac{3p}{150-3p}$$

$$MR = p\left[1 - \frac{1}{\eta d}\right] = p\left[1 - \frac{1}{\frac{3p}{150-3p}}\right]$$

$$= p\left[1 - \frac{(150-3p)}{3p}\right]$$

$$= p\left[\frac{3p-150+3p}{3p}\right]$$

$$= p\left[\frac{6p-150}{3p}\right]$$

$$= \frac{6}{3}[p-25]$$

$$= 2[p-25]$$

$$\boxed{MR = 2p - 50}$$

24. The demand function is given by $x = 20 - 2p - p^2$ where p and x are the price and the quantity respectively. Find the elasticity of demand for $p = 2.5$ [Govt. MQP-2018]

Solution :

$$\eta d = \frac{p}{x}\frac{dx}{dp}$$

$$\frac{dx}{dp} = -2 - 2p$$

$$\eta d = \frac{-p}{20-2p-p^2}(-2-2p)$$

$$= \frac{2p(r+p)}{20-2p-p^2}$$

$\boxed{\text{When } p = 2.5}$

$$\eta d = \frac{2(2.5)(1+2.5)}{20-2(2.5)-(2.5)^2}$$

$$= \frac{5(3.5)}{20-5-6.25}$$

$$= \frac{17.5}{15-6.25}$$

$$\eta d = \frac{17.5}{8.75}$$

$\boxed{\text{Ans. } = 2}$

25. Suppose the price p and quantity q of a commodity are related by the equation $q = 30 - 4p - p^2$ find

(i) e_d at $p = 2$ (ii) MR

Solution :

(i)
$$\frac{dq}{dp} = (-4 - 2p)$$

$$\eta d = \frac{-p}{q}\left(\frac{dq}{dp}\right)$$

$$= \frac{-p}{30 - 4p - p^2}(-4 - 2p)$$

$$= \frac{4p + 2p^2}{30 - 4p - p^2}$$

Put $p = 2$.

$$= \frac{4(2) + 2(2)^2}{30 - 4(2)^2 - 4} = \frac{8 + 8}{30 - 8 - 4}$$

$$= \frac{16}{30 - 12} = \frac{\overset{8}{\cancel{16}}}{\underset{9}{\cancel{18}}} = \frac{8}{9}$$

(ii) MR = ?

$$MR = \frac{dq}{dp}(-4 - 2p)$$

$$R = pq$$
$$= p(30 - 4p - p^2)$$
$$= 30p - 4p^2 - p^3$$

$$MR = \frac{dR}{dp}$$

$$= 30(1) - 4(2p) - 3(p)^2$$
$$= 30 - 8p - 3p^2$$

$$MR = 30 - 8p - 3p^2$$

26. What is the formula for elasticity of supply if you know the supply function?   *[BEQ]*

Solution :

Elasticity of supply $= \dfrac{p}{q}\dfrac{dq}{dp}$

$Ps = X_0 P_0 -$ integration of supply function within limited

$$= X_0 P_0 - \int_0^{x_0} g(x)dx$$

27. What are the Main menus of MS Word?
- ❖ Home menu
- ❖ Insert
- ❖ Page Layout
- ❖ Reference
- ❖ Review
- ❖ View

III. Short Answer Questions:

28. Illustrate the uses of Mathematical Methodsm in Economics.

1. Mathematical Methods help to present the economic problems in a more precise form.
2. Mathematical Methods help to explain economic concepts.

3. Mathematical Methods help to use a large Number variables in economic analyses.
4. Mathematical Methods help to quantify the impact or effect of any economic activity implemented by Government or anybody.

29. Solve for x quantity demanded if $16x - 4 = 68 + 7x$

Solution :

$$16x - 4 = 68 + 7x$$
$$16x - 7x = 68 + 4$$
$$9x = 72$$
$$x = \frac{72}{9}$$

$$\therefore x = 8$$

30. A firm has the revenue function $R = 600q - 0.03q^2$ and the cost function is $C = 150q + 60,000$, where q is the number of units produced. Find AR, AC, MR and MC.   *[BEQ]*

Solution :

$$MR = \text{Marginal Revenue} = \left(R\cdot\frac{1}{q}\right)$$

$$R = 600q - 0.03q^2$$
$$R' = 600 - (0.03)\,2(q) = 600 - 0.06q$$

$$AR = \frac{R}{q}$$

$$= \frac{600q - 0.03q^2}{q}$$

$$= \frac{600\cancel{q}}{\cancel{q}} - \frac{0.03q^{\cancel{2}}}{\cancel{q}}$$

$$AR = 600 - 0.03q$$

$$\text{Average cost (AC)} = \frac{\text{Total-cost}}{\text{output}}$$

$$= \frac{150q + 60000}{q}$$

$$AC = \frac{150\cancel{q}}{\cancel{q}} + \frac{60000}{q}$$

$$AC = 150 + \frac{60000}{q}$$

$$\text{Marginal cost (MC)} = \frac{d}{dq}(C)$$

$$= \frac{d}{dq}(150q + 60000)$$

$$MC = 150$$

31. Solve the following linear equations by using Cramer's rule.

$$x_1 - x_2 + x_3 = 2;$$
$$x_1 + x_2 - x_3 = 0;$$
$$-x_1 - x_2 - x_3 = -6$$

Solution :

$$x_1 - x_2 + x_3 = 2; \qquad (1 + 4 - 3)$$
$$x_1 + x_2 - x_3 = 0;$$
$$-x_1 - x_2 - x_3 = -6$$

$$\begin{bmatrix} 1 & -1 & 1 \\ 1 & 1 & -1 \\ -1 & -1 & -1 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ x_3 \end{bmatrix} = \begin{bmatrix} 2 \\ 0 \\ -6 \end{bmatrix}$$

$$AX = B$$

$$A = \begin{bmatrix} 1 & -1 & 1 \\ 1 & 1 & -1 \\ -1 & -1 & -1 \end{bmatrix}$$

$$\Delta = \begin{bmatrix} 1 & -1 & 1 \\ 1 & 1 & -1 \\ -1 & -1 & -1 \end{bmatrix}$$

$$= 1(-1 -1) + 1(-1 -1) + 1(-1 +1)$$
$$= -2 -2 + 0$$
$$\boxed{\therefore \Delta = -4}$$

32. If a firm faces the total cost function $TC = 5 + x^2$ where x is output, what is TC when x is 10?

Solution :

$$TC = 5 + (10)^2$$
$$= 5 + 100$$
$$\boxed{\therefore TC = 105}$$

33. If $TC = 2.5q^3 - 13q^2 + 50q + 12$ derive the M_t function and AC function.

Solution :

$$\frac{dc}{dq} = M.C. \qquad A.C = \frac{\text{Total cost}}{\text{output}}$$

$$\frac{dc}{dq} = 2.5(3)q^2 - (13 \times 2)q + 50$$

$$\boxed{M.C = 7.5q^2 - 26q + 50}$$

$$A.C = \frac{2.5q^3 - 13q^2 + 50q + 12}{q}$$

$$= \frac{2.5q^3}{q} - \frac{13q^2}{q} + \frac{50q}{q} + \frac{12}{q}$$

$$\boxed{\therefore A.C = 2.5q^2 - 13q + 50 + \frac{12}{q}}$$

34. What are the steps involved in executing a MS Excel sheet?

i) Plan the keystrokes needed to complete the tasks.

(ii) Click Tools.

(iii) Assign a Name for the Macro.

(iv) Assign a shortcut key for the Macro.

(v) Click Ok.

(vi) Perform the steps needed to create your report.

(vii) Click on the stop button on the Macro toolbar to stop recording and save the Macro.

35. A Research scholar researching the market for fresh cow milk assumes that $Qt = f(Pt, Y, A, N, Pc)$ where Qt is the quantity of milk demanded, Pt is the price of fresh cow milk, Y is average household income, A is advertising expenditure on processed pocket milk, N is population and Pc is the price of processed pocket milk .

(a) What does $Qt = f(Pt, Y, A, N, Pc)$ mean in words?

(b) Identify the independent variables.

(c) Make up a specific form for this function. (Use your knowledge of Economics to deduce whether the coefficients of the different independent variables should be positive or negative.)

a) i) Qt is the functions of Pt, Y, A, N, Pc.

ii) Other determinants of demand are,
   ❖ Pt - Price of fresh cow milk. Y - Average household Income.
   ❖ A - Advertising expenditure on processed pocket milk.
   ❖ N - Population.
   ❖ Pc - Price of processed pocket milk.

(b) i) 'Y' (Average household Income and population) and 'N' are independent variables.

ii) Pc is depending on Pt, A and N.

iii) 'A' is depending on 'N'.

(c) When price of fresh cow milk increases quantity of milk demanded decreases.
   ➢ When average household income increases and quantity of milk demanded is also increases.

36. Calculate the elasticity of demand for the demand schedule by using differential calculus method $P = 60 - 0.2Q$ where price is
(i) zero (ii) Rs. 20 (iii) Rs. 40.

Solution : [Govt. MQP-2018; HY-20]

Elasticity of demand

$$e_d = \frac{q}{p}\frac{dp}{dq}$$

$$p = 60 - 0.2q$$

$$\frac{dp}{dq} = 0 - 0.2(1)$$

$$\frac{dp}{dq} = -0.2$$

(i)
$$q = 0$$
$$p = 60 - 0.2(0) = 60 - 0$$
$$e_d = \frac{0}{60} \times (-0.2)$$
$$\boxed{e_d = 0}$$

(ii)
$$q = 20$$
$$p = 60 - 0.2(20)$$
$$p = 60 - 4$$
$$p = 56$$
$$e_d = \frac{20}{56} \times (-0.2) = \frac{-4}{56}$$
$$\boxed{e_d = 0.071}$$

(iii)
$$q = 40$$
$$p = 60 - 0.2(40)$$
$$p = 60 - 8$$
$$p = 52$$
$$e_d = \frac{40}{52} \times -0.2 = \frac{8}{52}$$
$$\boxed{e_d = 0.153}$$

$$q = \frac{60}{0.2} \times \frac{10}{10} = \frac{600}{2} = 300$$

$$q = 300$$

$$\eta_d = \frac{-p}{q} \cdot \frac{dq}{dp} = \frac{-0}{300} \times \frac{-1}{0.2}$$

$$= \frac{0}{60} = 0$$

$$\eta_d = 0$$

When P = 20

$$0.2q = 60 - 20$$
$$0.2q = 40$$
$$q = \frac{40}{0.2} \times \frac{10}{10} = \frac{400}{2}$$
$$q = 200$$

$$\eta_d = \frac{-p}{q} \cdot \frac{dq}{dp} = \frac{-20}{200} - \frac{1}{0.2}$$
$$= \frac{20}{40} - \frac{1}{2} = 0.5$$

$$\eta_d = 0.5$$

When P = 40

$$0.2q = 60 - 40$$
$$0.2q = 20$$
$$q = \frac{20}{0.2} \times \frac{10}{10} = \frac{200}{2} = 100$$
$$q = 100$$

$$\eta_d = \frac{-p}{q} \cdot \frac{dp}{dq} = \frac{-40}{100} - \frac{1}{0.2} = \frac{40}{20}$$

$$\eta_d = 2$$

P	0	20	40
q	300	200	100
ηd	0	0.5	2

37. The demand and supply functions are $P_d = 1600 - x^2$ and $P_s = 2x^2 + 400$ respectively. Find the consumer's surplus and producer's Surplus at equilibrium point. [BEQ]

Solution :

$$P_d = 1600 - x^2$$
$$P_s = 2x^2 + 400$$
$$P_d = P_s$$
$$1600 - x^2 = 2x^2 + 400$$
$$1600 - x^2 - 2x^2 - 400 = 0$$
$$-3x^2 + 1200 = 0$$
$$+3x^2 = +1200$$
$$x^2 = \frac{1200^{400}}{3_1}$$
$$x = \pm\sqrt{400}$$
$$\boxed{x_0 = 20}$$

38. What are the ideas of information and communication technology used in economics?

Introduction :

(i) Information and communication Technology (ICT) is the infrastructure that enables computing faster and accurate.

(ii) The following tables gives an idea of range of technologies that fall under the category of ICT.

S.No	Information	Technologies
1	Creation	Personal Computers, Digital Camera, Scanner, Smart Phone
2	Processing	Calculator, PC, Smart Phone
3	Storage	CD, DVD, Pen Drive, Microchip, Cloud
4	Display	PC, TV, Projector, Smart Phone

Best of Luck