

ISC SEMESTER-1 EXAMINATION

ECONOMICS

Solved Paper - 2021-22

Class-12th

(THEORY)

Maximum marks: 80

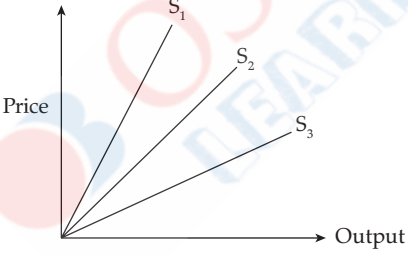
Time allowed: One and a half hours

(Candidates are allowed additional 10 minutes for only reading the paper)

ALL QUESTIONS ARE COMPULSORY

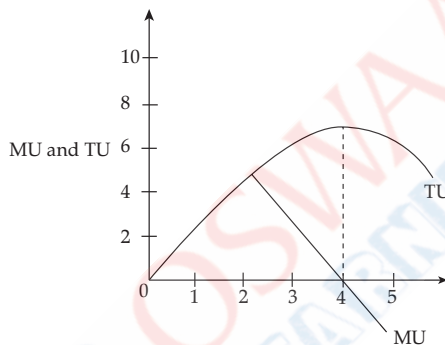
Each question/subpart of a question carries 1 mark.

Select the correct option for each of the following questions.

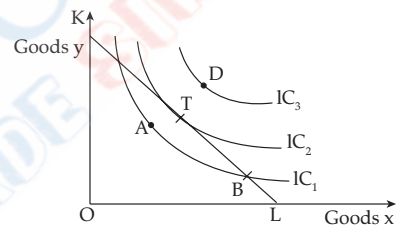
- Which of the following does not cause a shift of supply curve of a good?
 - Price of inputs
 - Price of goods
 - Goods and Service Tax
 - Subsidy.
- Stock of a commodity is also called:
 - Intended supply.
 - Actual supply.
 - Market supply.
 - Individual supply
- Movement along the supply curve occurs due to:
 - Increase in own price of the commodity.
 - Decrease in own price of the commodity.
 - Change in factors other than own price of the commodity.
 - Increase and decrease in own price of the commodity.
- Based on the given diagram, choose the correct statements:
 - S_1 is highly elastic, S_2 is unitary elastic and S_3 is highly inelastic.
 - S_1 is relatively elastic, S_2 is unitary elastic and S_3 is highly inelastic.
 - Both S_1 and S_2 are unitary elastic and S_3 is highly elastic.
 - S_1 , S_2 and S_3 are unitary elastic.
- If the Government provides tax concessions and subsidies, the supply curve will:
 - Shift leftwards.
 - Shift rightwards.
 - Remain constant.
 - Demand curve will shift.
- Supply is elastic if:
 - A 10% change in price causes a larger % change in quantity supplied.
 - The good in is a normal good.
 - The slope of the supply curve is positive.
 - A 1% change in price causes a smaller % change in quantity supplied.
- The shape of supply curve of perishable commodity will be:
 - Vertical.
 - Horizontal.
 - Upward sloping.
 - Downward sloping.
- The supply of labour decreases with increase in wage rate because:
 - Labour starts substituting leisure for wages.
 - Labour starts substituting wages for leisure.
 - Demand for labour changes.
 - Supply of labour is dependent on demand.
- Adoption of cost saving technological progress will:
 - Increase the supply
 - Reduce cost of production.
 - Reduce cost and increase supply.
 - Supply will not change.
- An increase in wages for labour will lead to:
 - Upward movement along the supply curve.
 - Downward movement along the supply curve.
 - Supply curve will shift towards left.
 - Supply curve will shift towards right.
- Additional utility derived from the consumption of an additional unit of a commodity is called:
 - Average utility.
 - Marginal utility.
 - Total utility.
 - Additional utility.
- When price is ₹ 5/- per unit of a commodity, A's demand is 11 units, B's demand is 14 units and C's demand is 8 units, then market demand will be:
 - 11 Units.
 - 14 Units.
 - 17 Units.
 - 33 Units.
- Convexity of indifference curve implies marginal rate of substitution.

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- (a) Increasing. (b) Decreasing.
(c) Constant. (d) Zero.
14. Which of the following is not an exception to the law of demand?
(a) Articles of snob value. (b) Veblen effect.
(c) Substitution effect. (d) Giffen Goods.
15. The indifference curve means:
(a) Equal consumption of two goods.
(b) Equal utility from the consumption of combination of two goods.
(c) Equal income of the consumer.
(d) Equal prices of goods consumed.
16. An increase in income leads to decrease in demand for instant noodles, then instant noodles is:
(a) Normal goods.
(b) Inferior goods.
(c) Substitute goods.
(d) Complementary goods.
17. Which factor causes the demand for a commodity to decrease?
(a) Increase in income.
(b) Fall in price of substitute goods.
(c) Expectation that prices will increase.
(d) Increase in market size.
18. Study the diagram given below and answer the questions that follow:



- (i) When TU is maximum, then MU is:
(a) zero. (b) maximum.
(c) positive. (d) negative
- (ii) When TU decreases MU is _____.
(a) increasing (b) decreasing
(c) negative (d) zero
- (iii) When TU is increasing at a diminishing rate then MU _____.
(a) decreases but is positive.
(b) increases.
(c) negative.
(d) becomes S Shaped.
19. Pre COVID, an oxygen cylinder could be refilled for ₹300. During the second wave of the pandemic, the people bought oxygen cylinder and stored it. Hence, the price of one refill went up to ₹2,000.
Answer the following questions:
(i) The reason for the price increase was:
(a) The demand for oxygen increased and supply for oxygen remained the same.
(b) The demand for oxygen and the supply for oxygen both increased simultaneously.
(c) The demand for oxygen and the supply for oxygen decreased simultaneously.
(d) The demand for oxygen and the supply for oxygen remained unchanged.
- (ii) It is a case of _____ in demand curve.
(a) Leftward shift of demand curve.
(b) Upward movement along the demand curve.
(c) Downward movement along the demand curve.
(d) Rightward shift of demand curve.
- (iii) People bought oxygen cylinder and stored it.
(a) The above is a case of price ceiling.
(b) The above is a case of hoarding.
(c) It is a case of floor price.
(d) It is a case of rationing.
- 20.



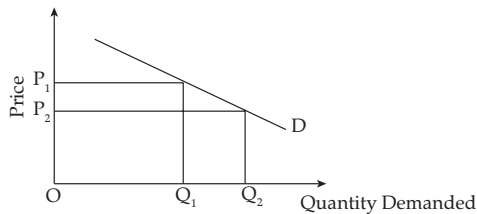
- (i) In the diagram above, the point of consumer equilibrium is:
(a) D (b) T
(c) A (d) B
- (ii) The point which is unattainable is:
(a) A (b) T
(c) B (d) D
- (iii) The condition for consumer's equilibrium is:
(a) $MU_x = MU_y$ (b) $\frac{MU_x}{P} = \frac{MU_y}{P}$
(c) $MC=MR$ (d) $MRS_{xy} = \frac{P_x}{P_y}$
21. When Price of a good is ₹12 per unit, 24 units are demanded. When the price rises to ₹14 per unit, 20 units are demanded.
(i) The price elasticity is:
(a) One
(b) Greater than one
(c) Zero
(d) Between zero and one
- (ii) The shape of the above demand curve will be:
(a) Positively sloped (b) Negatively sloped
(c) Parallel to X axis (d) Parallel to Y axis
- (iii) The price elasticity of demand measures:
(a) Slope of budget line
(b) Percentage change in the price of the goods.

- (c) Responsiveness of quantity demanded to the change in price
- (d) Sensitiveness of price to change in quantity demanded.

22. If two goods are complementary, then their:

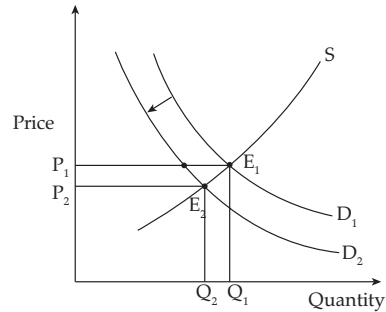
- (a) Income elasticity are negative.
- (b) Cross price elasticity is positive.
- (c) Cross price elasticity is negative.
- (d) Cross price elasticity is zero.

23.



In the diagram above, the demand curve represents:

- (a) Unit elastic.
 - (b) Perfect inelastic.
 - (c) Highly elastic.
 - (d) Highly inelastic.
24. When Zubair had a hike in his income, he switched over to rice and wheat from consumption of maize and jowar. Then income elasticity for the latter goods is:
- (a) Positive.
 - (b) Negative.
 - (c) Zero.
 - (d) Constant.
25. At the midpoint of a downward sloping straight demand curve touching two axes:
- (a) $E_d = 2$
 - (b) $E_d = 0.5$
 - (c) $E_d = 1$
 - (d) $E_d = 4$
26. What will be the effect on equilibrium price if supply is decreased without any change in demand?
- (a) No change.
 - (b) It will fall.
 - (c) It will rise.
 - (d) It will move in circular manner.
27. What will be the effect on equilibrium price when increase in demand equals increase in supply?
- (a) Equilibrium price remains constant.
 - (b) Equilibrium price rises.
 - (c) Equilibrium price falls.
 - (d) Equilibrium price rises and falls respectively.
28. What would the price ceiling lead to, when maximum price is fixed below the equilibrium price?
- (a) Excess demand.
 - (b) Excess supply.
 - (c) Deficient demand.
 - (d) No change at all.
29. Which of the following is an example of agricultural support price?
- (a) Price ceiling.
 - (b) Floor price.
 - (c) Equilibrium price.
 - (d) Product price.



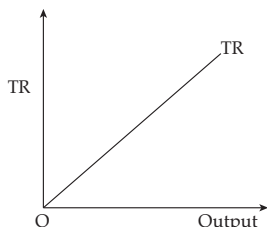
As per the diagram given above:

- (i) Equilibrium price has shifted from:
 - (a) OP_1 to OP_2
 - (b) E_1 to E_2
 - (c) OQ_1 to OQ_2
 - (d) OP_2 to OP_1
 - (ii) Equilibrium quantity has shifted from:
 - (a) OP_2 to OP_1
 - (b) E_2 to E_1
 - (c) OQ_1 to OQ_2
 - (d) D_1 to D_2
 - (iii) The new equilibrium point is:
 - (a) E_2
 - (b) E_1
 - (c) P_1
 - (d) Q_1
31. Which of the following equation is correct?
- (a) $MP = TP_n - TP_{n-1}$
 - (b) $MP = \frac{AP}{L}$
 - (c) $MP = \frac{TP}{L}$
 - (d) $MP = TP - AP$
32. If some inputs are variable and some inputs are fixed, then the functional relation is a case of:
- (a) Short run production function.
 - (b) Long run production function.
 - (c) Law of variable proportions.
 - (d) Diminishing marginal utility.
33. A rational producer will operate in stage of law of variable proportions.
- (a) Stage I
 - (b) Stage II
 - (c) Stage III
 - (d) Stage IV
34. If MP of labour is below AP of labour the:
- (a) MP is negative.
 - (b) $MP = 0$.
 - (c) AP is falling.
 - (d) AP is negative.
35. (i) The law of variable proportion states: When a variable factor is added to fixed factor, the total product increases at increasing rate and finally total product ____.
- (a) rises
 - (b) falls
 - (c) remains the same
 - (d) rises at diminishing rate
- (ii) In the case of the above law, diminishing returns to a factor occurs when ____.
- (a) Units of variable inputs are added to a fixed factor and AP and MP fall.
 - (b) Units of variable inputs are added to fixed factor, AP increases.
 - (c) Size of the plant increases in the long run, and MP is constant.

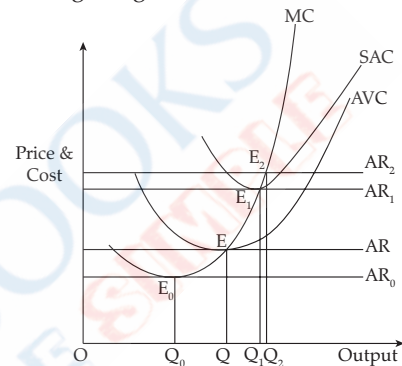
- (d) Quantity of the fixed factor increases and returns to variable input falls.
36. When AP reaches maximum, TP is:
- Also maximum.
 - Increasing at diminishing rate.
 - Zero.
 - Negative.
37. One of the reasons for negative returns to factor is:
- Imperfect substitutability.
 - Overcrowding and management problems.
 - Disturbance in optimum proportion.
 - Indivisibility of factors.
38. The shape of MP curve is _____ shape.
- U
 - inverse U
 - inverse S
 - S
39. When 50 hours of labour are spent, total output produced is 2000 units and when 55 hours of labour are spent, total output produced is 2,250 units. In this case MP is:
- 500
 - 40
 - 45
 - 50
40. In the stage of diminishing returns of a variable factor:
- TP is increasing, AP is increasing, MP is also increasing.
 - TP is constant, AP is decreasing, MP is also increasing.
 - TP is increasing, AP declines, MP is declining to become zero.
 - TP is decreasing, AP is decreasing, MP is negative.
41. Long run production function studies the change in output when:
- One input is variable.
 - One input is fixed.
 - All inputs are variable.
 - All inputs are fixed.
42. Observe the following diagram:
-
- (i) Choose the correct option
- When $MC > AC$, AC falls.
 - When $MC < AC$, AC rises.
 - When $MC = AC$, AC falls.
 - When $MC > AC$, AC rises.
- (ii) MC cuts AC at AC's -----point.
- Maximum point.
 - Minimum point.
 - When AC is rising.
 - When AC becomes parallel to X axis.
43. The shape of TVC is initially concave downwards and subsequently concave upwards because:
- Initially TVC increases at decreasing rate and then increases at increasing rate.
 - Initially TVC decreases at decreasing rate and then increases at diminishing rate
 - Initially increases at increasing rate and then increases at decreasing rate.
 - Initially decreases at decreasing rate and then increases at decreasing rate.
44. The type of cost that can be entered in the book of accountancy is:
- Opportunity cost
 - Real cost
 - Economic cost
 - Money cost
45. Which of the following indicates fixed cost?
- Expenses on raw materials
 - Salaries of casual workers.
 - Electricity bills.
 - Interest on loans.
46. If $TC = ₹50$ at zero level of output then what will be the value of TFC?
- ₹30.
 - ₹40.
 - ₹50.
 - ₹60.
47. Match the cost concepts in List 1 with their definitions in List 2.
- | List I (cost concepts) | | List II (description) | |
|------------------------|---------------|-----------------------|---|
| (a) | Explicit cost | (i) | Change in total cost for a unit change in output. |
| (b) | Marginal cost | (ii) | Value of inputs owned and used in production. |
| (c) | Implicit cost | (iii) | Costs which a business incurs. |
- (a) (a)-(ii), (b)-(i), (c)-(iii) (b) (a)-(i), (b)-(ii), (c)-(iii)
 (c) (a)-(iii), (b)-(i), (c)-(ii) (d) (a)-(iii), (b)-(ii), (c)-(i)
48. Which of the following statement is true?
- MC is unaffected by variable cost.
 - MC is unaffected by fixed cost.
 - MC equals change in TR.
 - MC is unaffected by price.
49. AR and MR curves are more elastic in:
- Oligopoly.
 - Monopoly.
 - Monopolistic Competition.
 - Duopoly.
50. When MR is perfectly elastic, TR is:
- Upward sloping.
 - Downward sloping
 - Concave to origin
 - Convex to origin:
51. Choose the correct answer to fill the following table:
- | Output | Price | TR | AR |
|--------|-------|----|----|
| 2 | 9 | | |
| 3 | 7 | | |
- (i) The TR will be:
- 18, 21
 - 20, 27
 - 15, 16
 - 20, 21

- (ii) The AR will be:
 (a) 9, 8 (b) 9, 7
 (c) 10, 8 (d) 7, 9
52. A monopoly market has:
 (a) No barriers to entry. (b) Many substitutes.
 (c) Many suppliers. (d) One seller.
53. Selling cost is not required in:
 (a) Perfect competition and monopolistic competition.
 (b) Oligopoly and monopolistic competition.
 (c) Monopoly and oligopoly.
 (d) Monopoly and perfect competition.
54. Which of the following is not a characteristic of a price taker firm?
 (a) $TR = P \times Q$.
 (b) $AR = \text{Price}$.
 (c) $AR = MR = \text{Price}$.
 (d) Negatively sloped demand curve.
55. In the context of monopolistic competition, which of the following is correct?
 (a) Firm has full control over price.
 (b) Horizontal straight line in demand curve of the firm.
 (c) Freedom of entry and exit.
 (d) Selling cost do not exist.
56. When a soft drink company A roped in a Hollywood star for its endorsement in India, the soft drink company B went in for a Bollywood star as a competitor.
 (i) This is a feature of:
 (a) Differentiated products.
 (b) Non price competition.
 (c) Interdependence and non-price competition among firms.
 (d) Price discrimination.
 (ii) Name the kind of market:
 (a) Monopoly.
 (b) Perfect competition.
 (c) Oligopoly.
 (d) Monopolistic Competition.
 (iii) The number of sellers in this kind of market are:
 (a) Infinite.
 (b) Few.
 (c) Only one.
 (d) Large number but not infinite.

57.



- (i) The TR curve in the above diagram belongs to:
 (a) Monopoly
 (b) Monopolistic Competition
 (c) Oligopoly
 (d) Perfect Competition
- (ii) The curve is a straight line because:
 (a) Price is increasing with output.
 (b) Price is decreasing with output.
 (c) Price remains constant.
 (d) Marginal revenue is increasing.
- (iii) TR is calculated as:
 (a) Price \times output. (b) $AR \times MR$.
 (c) $AC \times MR$. (d) $TC \times \text{Price}$.
58. Study the diagram given below:



- (i) Point E is:
 (a) Shut down point
 (b) Break even point
 (c) Market equilibrium point
 (d) Point of minimum return
- (ii) Point E_1 is:
 (a) Shut down point
 (b) Break even point
 (c) Market equilibrium point
 (d) Point of maximum return
- (iii) At E_0 :
 (a) Firm may stop producing
 (b) Firm must stop producing
 (c) Firm may continue production
 (d) Firm must continue production
- (iv) Point E_2 indicates:
 (a) Normal profit
 (b) Loss
 (c) Supernormal profit
 (d) Neither loss nor profit
59. If revenue equals cost, then firm earns only:
 (a) Normal profit (b) Pure profit
 (c) Economic profit (d) Supernormal profit
60. Shut down point is a situation where the firm covers:
 (a) Only fixed cost.
 (b) Only variable cost.
 (c) Both fixed and variable cost.
 (d) Neither fixed nor variable cost.

ANSWERS

Section-A

7 Marks

1. **Option (b) is correct.**
Explanation: Shift in supply curve takes place when quantity supplied changes due to change in factors other than the own price of commodity. It shows increase or decrease in supply.
2. **Option (a) is correct.**
Explanation: Supply is the quantity of goods sold in a particular time at a particular price. Stock refers to the total quantity of goods which is available with the seller in the market at a particular point of time which represents intended supply.
3. **Option (d) is correct.**
Explanation: Change in quantity supplied refers to rise/fall in supply due to change in own price of the good, other factors like technology and the prices of factors of production remaining constant. Other things remaining the same, any change in the price of the goods leads to a movement along its supply curve.
4. **Option (d) is correct.**
Explanation: When the proportionate change in quantity supplied is equal to the proportionate change in price, the elasticity of supply is said to be equal to one. And in such a situation the supply curve starts from the origin itself. Any supply curve that passes through the origin, irrespective of its slope, tends to have a unitary elastic supply.
5. **Option (b) is correct.**
Explanation: Government's policy also affects the supply of a commodity. When the government provides the subsidy and tax concession on the goods, the producers can produce more of the goods as it will cost less to them. This will lead to the increase in supply leading to a rightward shift in the supply curve.
6. **Option (a) is correct.**
Explanation: When percentage change in supply is more than the percentage change in price, supply is said to be elastic or more than unitary elastic. In this case, the value of the E_s is more than one.
7. **Option (a) is correct.**
Explanation: It will be Inelastic supply in case of perishable goods (e.g. milk, bread, etc.) because their supply can neither be increased nor be decreased within a short period. In perfectly inelastic supply the quantity supplied does not react to the changes in the price. The increase or decrease in the price does not change the quantity supplied therefore supply curve will be vertical in shape.
8. **Option (a) is correct.**
Explanation: Initially, when the wage rate is high or increasing then the supply of Labour tends to increase. But, later the supply of labour will decrease even at high wage rate because the Labour may require more leisure and substitutes leisure for wages. Thus, the law of supply shall not hold true in this case.
9. **Option (c) is correct.**
Explanation: A cost saving technology raises productivity and generally lowers per unit cost of production. Consequently, the probability to earn more profit also increases and hence, the producer is induced to supply more. As a result, supply curve shifts towards right.
10. **Option (c) is correct.**
Explanation: Initially, when the wage rate is high or increasing then the supply of Labour tends to increase. But, later the supply of labour will decrease, shifting supply curve to left, even at high wage rate because the Labour may require more leisure and substitutes leisure for wages.
11. **Option (b) is correct.**
Explanation: Marginal Utility is addition made to the total utility as consumption is increased by one more unit of the commodity.
12. **Option (d) is correct.**
Explanation: Market Demand is the aggregate of the quantities demanded by all consumers in the market at different prices per time period. It is the horizontal summation of individual demand. Therefore Market Demand at 5 rs price will be 33 units = 11 + 14 + 8
13. **Option (b) is correct.**
Explanation: An indifference curve is convex to the origin because of diminishing marginal rate of substitution. The slope of an indifference curve is called Marginal Rate of Substitution of X for Y, symbolically denoted as MRS_{xy} . It is defined as the amount of Y that a consumer is willing to substitute for an additional unit of X. MRS_{xy} is the rate at which the consumer trades off Y goods for X goods. Marginal Rate of Substitution. (MRS_{xy}) must be diminishing as consumer moves along the curve to the right.
14. **Option (c) is correct.**
Explanation: All the other options are exceptions to law of demand but substitution effect is one of the reasons for downward sloping demand curve along with (1) Law of Diminishing Marginal Utility, (2) Substitution effect, (3) Income effect, (4) Different uses, (5) Change in consumer's number
15. **Option (b) is correct.**
Explanation: An indifference curve shows a combination of two goods that give a consumer equal satisfaction and utility thereby making the consumer indifferent.
16. **Option (b) is correct.**
Explanation: These are those goods whose income effect is negative. Thus if the income increases the demand for inferior goods falls.
17. **Option (b) is correct.**
Explanation: All the other options will lead to increase in demand but fall in the price of substitute good causes decrease in demand.
18. (i) **Option (a) is correct.**
Explanation: When TU is maximum, MU is zero, it is called saturation point. (since slope of TU curve at that point is zero). Units of the good are consumed till the saturation point.
(ii) **Option (c) is correct.**
Explanation: When TU curve is falling, MU curve becomes negative. If the consumer consumes beyond the point where TU is maximum, marginal utility becomes negative and total utility falls. It means that consumer starts getting disutility i.e., dissatisfaction instead of getting satisfaction.
(iii) **Option (a) is correct.**
Explanation: TU increases with an increase in consumption of a commodity as long as MU

is positive. In this phase, TU increases but a diminishing rate as MU from each successive unit tends to diminish. When consumption is increased beyond the point of satiety, TU starts falling as MU becomes negative.

19. (i) **Option (a) is correct.**

Explanation: When demand of a commodity increases, while supply remains constant, equilibrium price will increase. Due to excess demand, there will be competition among consumers, leading to rise in price that's why during second wave refill price increased upto ₹2000.

(ii) **Option (d) is correct.**

Explanation: Keeping supply constant, if the demand increases, the demand curve shifts upwards or rightwards.

(iii) **Option (b) is correct.**

Explanation: Producers will start hoarding the goods if their price increase, to create artificial scarcity in the market.

20. (i) **Option (b) is correct.**

Explanation: At point T, the consumer's budget line is tangent to the indifference curve IC_2 . It is the point of consumer's equilibrium. Consumer equilibrium is attained when the consumer reaches the highest possible indifference curve given his budget constraint. Consumer's equilibrium point must lie on the budget line and must give the most preferred combination of goods and services.

(ii) **Option (d) is correct.**

Explanation: D is unattainable point because of Budget Constraint which is shown by Budget line. Budget line shows all possible combinations of goods and services that can be attained with given current prices and limited income. A consumer can attain equilibrium when Budget line/Price Line is tangent to Indifference Curve, that is, $MRS_{XY} = P_x/P_y$. Since D point is on IC_3 which is outside budget line so, it's unattainable.

(iii) **Option (d) is correct.**

Explanation: Conditions of Consumer's Equilibrium : (i) Price Line should be tangent to Indifference Curve, that is, $MRS_{XY} = P_x/P_y$ (ii) At the point of equilibrium, Indifference Curve is convex to the origin.

21. (i) **Option (a) is correct.**

Explanation: Using formula : $\Delta Q/\Delta P \times P_x \times Q_x$ we get $(-4/2) \times 12/24 = 2/2 = 1$. So the price elasticity is equal to 1. i.e. Unitary elastic demand.

(ii) **Option (b) is correct.**

Explanation: The shape of unitary elastic demand curve will be negatively sloped. The unitary elastic demand curve is a straight downward sloping line forming 45° angles with both the axis.

(iii) **Option (c) is correct.**

Explanation: Price elasticity of demand measures the responsiveness of demand of a goods to a change in its price

22. **Option (c) is correct.**

Explanation: The cross price elasticity of demand for complementary goods is negative because the demand for one goods increases when the price for the other goods decreases.

23. **Option (c) is correct.**

Explanation: When a change in price leads to a more than proportionate change in demand, the demand is said to be elastic or more than unit elastic. The coefficient of elasticity of demand is greater than unity. The demand curve is downward sloping and flatter.

24. **Option (b) is correct.**

Explanation: In the case of inferior goods, the income elasticity of demand is negative as when the income of the consumer rises the demand for inferior goods falls and when the income of the consumer falls, then the demand for inferior goods rises.

25. **Option (c) is correct.**

Explanation: Because at the mid point of downward sloping straight demand curve the ratio of upper segment and lower segment is 1. So $E_d = 1$

26. **Option (c) is correct.**

Explanation: If the supply of a commodity decreases, while demand remains constant, equilibrium price will increase. Chain effect of Excess Demand takes place. Due to excess demand, there will be competition among consumers, leading to rise in price.

27. **Option (a) is correct.**

Explanation: When increase in supply is equal to increase in demand, the price will remain the same and the equilibrium output will increase.

28. **Option (a) is correct.**

Explanation: A maximum price below the equilibrium price results in excess demand which, in turn, invites a black market. A black market is that market situation in which goods are sold at a price more than the price fixed by the government.

29. **Option (b) is correct.**

Explanation: Support price or minimum price is also called Floor Price. Minimum support price is a law or regulation which holds the market price above the equilibrium price. Minimum Support Price helps to protect the interest of farmers who grow sugar cane, wheat, etc. This policy helps the farmer to sell whatever they produce and guarantee them a minimum income.

30. (i) **Option (a) is correct.**

Explanation: If the demand of a commodity decreases, while supply remains constant, the equilibrium price and output will fall. The equilibrium price falls from OP_1 to OP_2 .

(ii) **Option (c) is correct.**

Explanation: If the demand of a commodity decreases, while supply remains constant, the equilibrium price and output will fall. The equilibrium price falls from OP_1 to OP_2 and output falls from OQ_1 to OQ_2 .

(iii) **Option (a) is correct.**

Explanation: If the demand of a commodity decreases, while supply remains constant, the equilibrium price and output will fall. The equilibrium price falls from OP_1 to OP_2 and output falls from OQ_1 to OQ_2 . The new new equilibrium is established at point E_2 .

31. **Option (a) is correct.**

Explanation: MP is defined as the change in total product resulting from employment of an additional unit of the variable factor.

32. **Option (a) is correct.**

Explanation: Short Run Production Function or Returns to a Factor : It is related to short-run,

when only one factor of production is variable and others are fixed. Since units of variable factors are increased continuously, so factor ratio changes in this production function.

33. Option (b) is correct.

Explanation: In the second stage : Total product increases at a decreasing rate and reaches maximum, and MP becomes zero. Because in the third stage: Total product also decrease and marginal product becomes therefore a rational producer operates in second stage.

34. Option (c) is correct.

Explanation: When $MP < AP$, AP falls. (MP curve lies below AP curve. When both AP and MP curves are falling, MP curve falls at a faster rate. The reason for all in both AP and MP values is full utilisation of the fixed factor.)

35. (i) Option (b) is correct.

Explanation: The law of variable proportion states that as we employ more and more units of a variable input, keeping other inputs fixed, the total product increases at increasing rate in the beginning then increases at diminishing rate and finally starts falling.

(ii) Option (a) is correct.

Explanation: Phase II of production ranges from the point where MP curve is maximum to the point where the MP curve is zero. MP curve is positive but declining. TP curve increases at a decreasing rate and reaches a maximum. AP curve also falls. The reason for fall in both AP and MP values is full utilisation of the fixed factor.

36. Option (b) is correct.

Explanation: When AP reaches maximum TP increases at a diminishing rate.

37. Option (b) is correct.

Explanation: Negative returns in phase III arises due to the fact that the amount of variable factor has become excessive relative to the fixed factor. For example, if the variable factor is labour, If too many persons are engaged in cultivating on a given piece of land where instead of helping each other in production, they cause over – crowding and chaos and thus hamper each other's work. In such a case, the contribution returns become negative and the total returns start diminishing.

38. Option (b) is correct.

Explanation: Both AP and MP curves are inverted 'U' shaped curve. because of laws of variable proportions

39. Option (d) is correct.

Explanation: $MP_n = \frac{\Delta TP}{\Delta L}$
 $= \frac{250}{5} = 50$

40. Option (c) is correct.

Explanation: Diminishing returns to a factor. refers to the phase where TP increases at a diminishing rate and reaches its maximum. In this phase, AP is declining, MP is declining but still remains positive. The stage ends where $MP = 0$

41. Option (c) is correct.

Explanation: In long-run production function all factors of productions are variable.

42. (i) Option (d) is correct.

Explanation: When AC is falling, $AC > MC$. (ii) When AC is rising, $AC < MC$. (iii) When AC is constant, $AC = MC$. (iv) MC curve cuts AC curve at its lowest point. Here, $AC = MC$. (v) AC can fall even when MC is rising. Both AC and MC curve are Ushaped.

(ii) Option (b) is correct.

Explanation: At the minimum point of the AC, the MC cuts the AC curve and average cost is constant because the TC is increasing at a constant rate.

43. Option (a) is correct.

Explanation: As output produced increases, TVC rises initially at a decreasing rate and then at an increasing rate. Shown graphically, TVC curve is an inverse S-shaped curve. It originates from the origin, initially rises at a falling rate and after a point of production it rises at an increasing rate. The reason behind its shape is the law of variable proportion.

44. Option (d) is correct.

Explanation: Accounting Cost or Money Cost: The money cost of producing a certain output of a commodity is the sum of all the payments to the factors of production engaged in the production of that commodity.

45. Option (d) is correct.

Explanation: Fixed costs are those costs that do not change with a change in level of output. They are incurred irrespective of the level of output of good is produced. Examples of fixed costs are: (i) overhead expenses, (ii) wages/salaries of permanent workers, (iii) depreciation of machinery, and (iv) insurance amount.

46. Option (c) is correct.

Explanation: Since fixed factors are purchased before production actually starts, fixed costs are incurred even when output is zero. The intercept TFC curve makes with the y-axis is equal to the fixed cost which is ₹50.

47. Option (c) is correct.

Explanation: Explicit Cost : • Explicit Cost are those cash payments which firms make to outsiders for their services and goods. • Implicit Cost : Implicit Cost are the costs of entrepreneur's own factors or resources. • Marginal Cost : Marginal cost is the addition made to the total cost by the production of one more unit of a commodity.

48. Option (b) is correct.

Explanation: Marginal cost curve is not affected by the fixed cost as it is the change in the total cost with the production of one extra unit of output.

49. Option (c) is correct.

Explanation: Under monopolistic competition, demand curve (AR, MR) is more elastic because the seller has many rivals producing close substitutes in the market, hence consumer can easily substitute away from the good which has become expensive.

50. Option (a) is correct.

Explanation: Since price or AR is given under perfect competition and is constant through out, AR and MR are always equal. i.e. $AR = MR$ for competitive firm. As MR is the rate of change of TR. So TR increases at a constant rate and is a straight line upward sloping curve.

51. (i) Option (a) is correct.

Explanation: $TR = P \times Q$. Using this formula numerical is solved.

(ii) Option (b) is correct.

Explanation: As $AR = P$ (Price) So, For 2nd & 3rd unit of output AR is 9, & 7 respectively.

52. Option (d) is correct.

Explanation: A monopoly market has 1. One seller 2. No close substitutes 3. Has Barriers to entry

53. Option (d) is correct.

Explanation: There is no need to incur selling cost for a firm working under perfect competition or having Monopoly in the market since by assumption, the product produced by all firms is homogeneous in the perfectly competitive industry and by a Monopoly firm, and individual firm can sell as much quantity of the product as it likes at the given price.

54. Option (d) is correct.

Explanation: The perfectly competitive firm is a 'price-taker' and can sell any amount of the commodity at the established price. Therefore Demand curve is infinitely elastic and given by a horizontal line. Here Price = AR = MR. And, AR curve is also the MR curve of the firm. TR will be the product of Quantity sold at the given price.

55. Option (c) is correct.

Explanation: Monopolistic Competition is characterised by following features 1. Large number of buyers and sellers - Each firm is supplying a small percentage of total market supply of the product. so no control over prices 2. Differentiated products -there are many close substitutes for each product and thus, a monopolistic firm faces an elastic demand curve sloping down 3. Free entry and exit-Firms can freely move in and out of industry as there are no barriers 4. Heavy selling cost are incurred- for promoting the demand for its product.

56. (i) Option (c) is correct.

Explanation: Under Oligopoly, since the market is dominated by a few firms, the price and output decisions of one firm affects the profitability of the remaining firms in the market. Mutual interdependence is an incentive to develop alternatives to price competition in pursuit of economic profit. Each firm carefully considers and watches how its actions will affect its rivals and how its rivals are likely to react. Firms try to avoid price competition for the fear of price war.

(ii) Option (c) is correct.

Explanation: Oligopoly is a market situation in which an industry has only a few firms (or few large firms producing most of its output) mutually dependent for taking decisions about price and output.

(iii) Option (b) is correct.

Explanation: There are many sellers in Perfect competition and Monopolistic competition market. There is only one seller in the case of Monopoly market. Oligopoly market is characterised by the presence of only few sellers in the market. Oligopoly is a form of market in which there are few big sellers of a commodity and a large number of buyers. Each seller has a significant share of the market.

57. (i) Option (d) is correct.

Explanation: In perfect competition, AR is a horizontal line parallel to 'X' axis. It is equal to MR because of uniform price of the product. So TR curve is a straight positively sloping line from the origin and TR increases in same proportion as increase in output sold.

(ii) Option (c) is correct.

Explanation: A firm under perfect competition is a price taker. It cannot influence/change the

market price, implying a constant AR (price) for a firm corresponding to all levels of output.

(iii) Option (a) is correct.

Explanation: Price also equals average revenue, which is total revenue divided by quantity. To obtain average revenue (AR), we divide total revenue by quantity, Q. To obtain total revenue (TR) we multiply price (P) by quantity (Q)

58. (i) Option (a) is correct.

Explanation: Point 'E' in the diagram is shutdown point because here AR (Price) = AVC = MC. In other words the point where the marginal cost curve crosses the average variable cost curve it gives the shutdown point. When the market price (AR) that a perfectly competitive firm faces is below average variable cost (AVC) at the profit-maximizing quantity of output, then the firm should shut down operation.

(ii) Option (b) is correct.

Explanation: Point E_1 shows Breakeven Point. When the market price (AR_1) is equal to average cost (SAC) at the profit-maximizing level of output, at this point the firm is making zero profits and it's the breakeven point. Similarly the point where the MC curve crosses the average cost (AC) curve, at the minimum of the average cost curve, it determines the break-even point.

(iii) Option (b) is correct.

Explanation: At E_0 point, since $AR < AVC$ the firm should stop producing. As we know, if price falls below the price at the shutdown point, then the firm will shut down immediately, since it is not even covering its variable costs.

(iv) Option (c) is correct.

Explanation: Point E_2 indicates Super normal profits as at this point $AR > AC$. Supernormal profit is made where average revenue exceeds average cost. In a perfectly competitive market, firms are price takers facing infinite demand at the market price which means that average revenue is not only equal to marginal cost, but is also constant and equal to the market price. Costs on the other hand are kept as low as possible to avoid being priced out of the market. Output is determined by the profit maximising condition i.e. where marginal revenue is equal to marginal cost. This could potentially lead them to a situation where average cost exceeds average revenue but this will only be the case in the short run.

59. Option (a) is correct.

Explanation: When $TR = TC$ or $AR = AC$, the firms earns only Normal Profits. Since profit equals total revenue minus total cost, normal profit means zero economic profits.

60. Option (b) is correct.

Explanation: At the shut down point since AR is less than AVC the firm should stop producing. Because, if price falls below the price at the shutdown point, then the firm will be not even covering its variable cost therefore shutting down can reduce variable costs to zero. Since at a price above the shutdown point, the firm is making enough revenue to cover at least a portion of fixed costs, but at shutdown point it covers only the variable cost.

Semester – 1

OMR SHEET

Booklet Series
A

Use English Numbers / Letters only. Use Blue / Black Ball Point Pen to write in box.

Booklet Series <input type="text"/>	Roll Number <input type="text"/>	Name <input type="text"/>	Test Date <input type="text"/>	Invigilator's Signature <input type="text"/>	Test Center Code ① ① ① ① ② ② ③ ③ ④ ④ ⑤ ⑤ ⑥ ⑥ ⑦ ⑦ ⑧ ⑧ ⑨ ⑨
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Subject <input type="text"/>		Student's Signature <input type="text"/>	Certified that all the entries in this section have been properly filled by the student.		

IMPORTANT

The candidate should check that the Test Book Series printed on the OMR Sheet is the same as printed on the Test Booklet. In case of discrepancy, the candidate should immediately report the matter to the invigilator for replacement of both the Test Booklet and the Answer Sheet.

Darken the circle for each question.

Q.No.	Response	Q.No.	Response	Q.No.	Response	Q.No.	Response
Section-I		d.	① ② ③ ④	c.	① ② ③ ④	d.	① ② ③ ④
1.		e.	① ② ③ ④	d.	① ② ③ ④	e.	① ② ③ ④
a.	① ② ③ ④	3.		e.	① ② ③ ④	Section-III	
b.	① ② ③ ④	a.	① ② ③ ④	5.		7.	
c.	① ② ③ ④	b.	① ② ③ ④	a.	① ② ③ ④	a.	① ② ③ ④
d.	① ② ③ ④	c.	① ② ③ ④	b.	① ② ③ ④	b.	① ② ③ ④
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a.	① ② ③ ④	4.		e.	① ② ③ ④	e.	① ② ③ ④
b.	① ② ③ ④	Section-II		6.		8.	
c.	① ② ③ ④	a.	① ② ③ ④	a.	① ② ③ ④	a.	① ② ③ ④
		b.	① ② ③ ④	b.	① ② ③ ④	b.	① ② ③ ④
				c.	① ② ③ ④	c.	① ② ③ ④
				d.	① ② ③ ④	d.	① ② ③ ④
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