

Section I (20 questions; 1 mark each)

1. Which of the following statements is not true?
 - a. Societies face an important tradeoff between efficiency and equity
 - b. Governments can always improve market outcomes by intervening
 - c. Trade can make everyone better off
 - d. A country's standard of living depends on its ability to produce goods & services
2. Which of the following is not a determinant of demand for a product?
 - a. Taste of consumers
 - b. Price of the product
 - c. Price of substitute products
 - d. Number of suppliers
3. Economics deals primarily with the concept of
 - a. scarcity
 - b. money
 - c. poverty
 - d. banking
4. The principle that "people face tradeoffs" applies to
 - a. Only individuals.
 - b. Only families.
 - c. Only societies.
 - d. All individuals, families and societies
5. In a market economy, supply and demand framework are important because they
 - a. are direct policy tools used by government agencies to regulate the economy.
 - b. illustrate when a market is in equilibrium, but they are not helpful when a market is out of equilibrium.
 - c. can be used to predict the impact on the economy of various events and policies.
 - d. can be used for individual decision making
6. The supply of a good or service is determined by
 - a. those who buy the good or service.
 - b. the government.
 - c. those who sell the good or service.
 - d. both those who buy and those who sell the good or service.
7. Law of demand states that:
 - a. With the increase in price, Quantity demanded increases
 - b. With the increase in price, quantity demanded decreases other things remaining the same.
 - c. Quantity does not change with any increase in price.
 - d. Market should always fulfil all demand
8. A monopoly market consists of:
 - a. large number of buyer
 - b. Small number of buyer
 - c. A single firm controlling the market
 - d. A single buyer which is the government
9. In price discrimination, a producer:
 - a. Charges different prices to different customers
 - b. Charges same price
 - c. Charges many prices
 - d. Charges prices as charged by rival firms
10. Which of the following will cause a movement along the demand curve for tea?
 - a. A change in the price of coffee.
 - b. A change in the price of tea.
 - c. A change in consumer tastes and preferences for tea
 - d. A change in consumer income.

11. Elasticity is
 - a. a measure of how much buyers and sellers respond to changes in market conditions.
 - b. the study of how the allocation of resources affects economic well-being.
 - c. the maximum amount that a buyer will pay for a good.
 - d. the value of everything a seller must give up to produce a good.
12. The price elasticity of demand measures.
 - a. buyers' responsiveness to a change in the price of a good.
 - b. the extent to which demand increases as additional buyers enter the market.
 - c. how much more of a good consumer will demand when incomes rise.
 - d. the movement along a supply curve when there is a change in demand.
13. An increase in the consumer's income, other things being equal, will
 - a. Cause an upward movement along the demand curve for an inferior good.
 - b. Shift the supply curve for a normal good to the right.
 - c. Shift the demand curve for an inferior good to the left.
 - d. Cause a downward movement along the supply curve for a normal good
14. For a price ceiling to be a binding constraint on the market, the government must set it
 - a. Above the equilibrium price
 - b. Below the equilibrium price
 - c. Precisely at the equilibrium price
 - d. At any price because all price ceilings are binding constraints
15. Which of the following is an example of a price floor?
 - a. Rent controls
 - b. Restricting diesel prices to Rs.60 per litre when the equilibrium price is Rs. 65 per litre
 - c. The minimum wage
 - d. The minimum price that the producer likes to charge
16. In a demand supply framework, a tax imposed on the buyers of a good shifts the
 - a. Demand curve upward by the size of the tax per unit
 - b. Demand curve downward by the size of the tax per unit
 - c. Supply curve upward by the size of the tax per unit
 - d. Supply curve downward by the size of the tax per unit
17. For a competitive firm, marginal revenue is
 - a. Equal to the price of the good sold
 - b. Average revenue divided by the quantity sold
 - c. Total revenue divided by the price
 - d. Equal to the quantity of the good sold
18. In long-run equilibrium in a competitive market, firms are operating at
 - a. The minimum of their average-total-cost curves
 - b. The intersection of marginal cost and marginal revenue
 - c. Their efficient scale
 - d. Intersection of marginal cost and marginal revenue which is also the minimum of average total cost and is at efficient scale
19. A market structure in which many firms sell products that are similar but not identical is known as
 - a. Perfect competition
 - b. Monopoly
 - c. Oligopoly
 - d. Monopolistic competition
20. Collusion is difficult for an oligopoly to maintain
 - a. Because antitrust laws make collusion illegal
 - b. Because, in the case of oligopoly, self-interest is in conflict with cooperation
 - c. If additional firms enter the oligopoly
 - d. Firms sometimes exit the market

Section II (20x2)

1. Demand and supply curves of ice creams intersect at price = Rs25. Price of ice cream is Rs 20 inside the premises of a school. This will lead to
 - a. Shortage of ice cream in the school premises
 - b. Surplus of ice creams in the school premises
 - c. Shift in the supply curve
 - d. Shift in demand curve

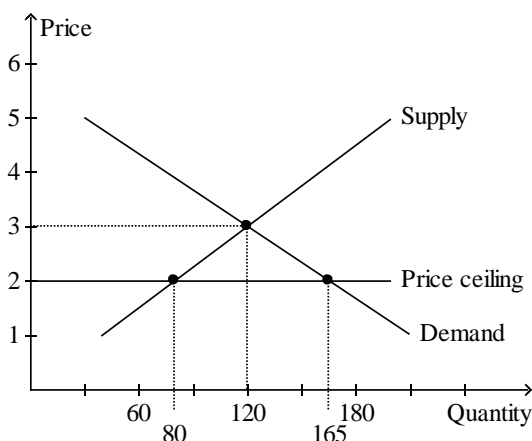
2. During Christmas, the supply of toys go up in the market because
 - a. Increase in number of sellers in the market
 - b. Increased expectation of selling more toys
 - c. Increase in number of sellers in the market and Increased expectation of selling more toys
 - d. Price of the raw materials go down in festive seasons

3. Market supply curve is the relation between
 - a. Aggregate of all quantities supplied by all firms at each price
 - b. Aggregate of all prices at which all firms supply each quantity
 - c. Price and quantity supplied for a single representative firm
 - d. Average price and quantity of all goods produced in the market

4. Last year, Carolyn bought 6 pairs of earrings when her income was \$40,000. This year, her income is \$52,000, and she purchased 7 pairs of earrings. Holding other factors constant, it follows that Carolyn's income elasticity of demand is about
 - a. 0.59, and Carolyn regards earrings as an inferior good.
 - b. 0.59, and Carolyn regards earrings as a normal good.
 - c. 1.7, and Carolyn regards earrings as an inferior good.
 - d. 1.7, and Carolyn regards earrings as a normal good.

5. If the price elasticity of demand for a good is 0.2, then a 3 percent decrease in price results in a
 - a. 0.6 percent increase in the quantity demanded.
 - b. 1.5 percent increase in the quantity demanded.
 - c. 2 percent increase in the quantity demanded.
 - d. 6 percent increase in the quantity demanded.

6. In the following figure,



- The price ceiling causes a
- a. surplus of 40 units.
 - b. surplus of 85 units.
 - c. shortage of 45 units.
 - d. shortage of 85 units.
7. In the economic models of markets, we normally assume that the goal of a firm is to
 - (i) earn profits as large as possible, even if it means reducing output.
 - (ii) earn profits as large as possible, even if it means incurring a higher total cost.
 - (iii) earn revenues as large as possible, even if it reduces profits.
 Choose the correct options:

- a. (i) and (ii) only
 - b. (i) and (iii) only
 - c. (ii) and (iii) only
 - d. (i), (ii), and (iii)
8. A certain firm produces and sells chewing gum. Last year it sold 3 million packets of gum at a price of Rs 3 per packet. For last year, the firm's
- a. accounting profit was Rs 9 million.
 - b. economic profit was Rs 9 million.
 - c. total revenue was Rs 9 million.
 - d. explicit cost was Rs 9 million.
9. Bamboo Hut Emporium produced 300 bamboo trays but sold only 275 of the units it produced. The average cost of production for each tray was Rs100. The price for each of the 275 trays sold was Rs95. Total profit for Bamboo Hut Emporium is
- a. Rs -3,875.
 - b. Rs 26,125.
 - c. Rs 28,500.
 - d. Rs 30,000.
10. The following table is for a firm in a competitive market.

Quantity	Total Revenue
0	Rs 0
1	Rs 7
2	Rs 14
3	Rs 21
4	Rs 28

The price for the firm is

- a. Rs 0
 - b. Rs 7
 - c. Rs 14
 - d. Rs 21
11. The following table shows the percentage of output supplied by the top eight firms in four different industries.

Firm	Industry W	Industry X	Industry Y	Industry Z
1	0.26	0.44	0.11	0.36
2	0.14	0.28	0.07	0.15
3	0.11	0.12	0.06	0.09
4	0.07	0.06	0.05	0.02
5	0.06	0.03	0.04	0.02
6	0.04	0.03	0.03	0.01
7	0.03	0.02	0.02	0.01
8	0.01	0.01	0.01	0.01

Which industry has the highest concentration ratio?

- a. W
 - b. X
 - c. Y
 - d. Z
12. If firms in a particular market sell identical products, then the market could be
- (i) perfectly competitive.
 - (ii) monopolistically competitive.
 - (iii) an oligopoly.
- a. (i) or (ii)
 - b. (ii) or (iii)
 - c. (i) or (iii)
 - d. (i)

13. A monopolistically competitive firm faces the following demand curve for its product:

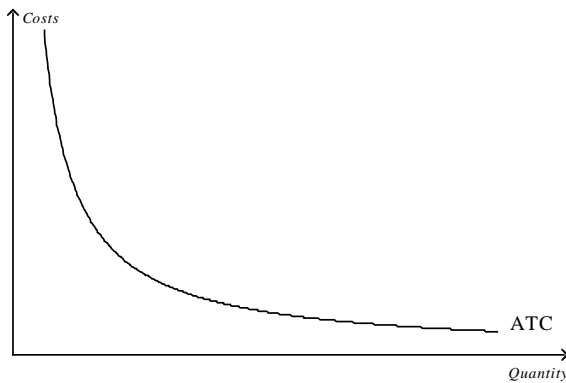
Price (Rs)	10	9	8	7	6	5	4	3	2	1
Quantity	2	4	6	8	10	12	14	16	18	20

The firm has total fixed costs of Rs 20 and a constant marginal cost of Rs 5 per unit. What is the quantity of output that the firm will produce to maximize its profit

- a. 6 units
- b. 9 units
- c. 11 units
- d. 13 units

14. The shape of the average total cost curve reveals information about the nature of the barrier to entry that might exist in a monopoly market. Which of the following monopoly types best coincides with the figure below?

- a. ownership of a key resource by a single firm

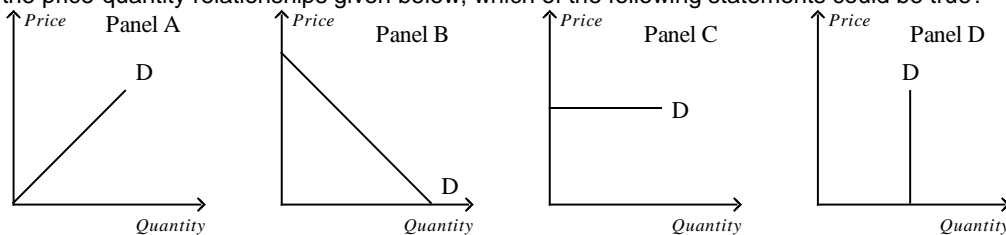


- b. natural monopoly
- c. government-created monopoly
- d. a patent or copyright monopoly

15. A monopolist can sell 200 units of output for Rs 36 per unit. Alternatively, it can sell 201 units of output for Rs 35.80 per unit. What is the marginal revenue of the 201st unit of output?

- a. Rs -4.20
- b. Rs -0.20
- c. Rs 4.20
- d. Rs 35.80

16. From the price-quantity relationships given below, which of the following statements could be true?



- a. Panel B is demand curve faced by monopolist and Panel C is demand curve faced by a perfectly competitive firm
- b. Panel B is demand curve faced by a perfectly competitive firm and Panel C is demand curve faced by a monopolist
- c. Panel D is demand curve faced by a perfectly competitive firm and Panel B is demand curve faced by a monopolist
- d. Panel A is demand curve and Panel B is supply curve in a competitive market

17. This table shows a game played between two firms, Firm A and Firm B. In this game each firm must decide how much output (Q) to produce: 10 units or 12 units. The profit for each firm is given in the table as (Profit for Firm A, Profit for Firm B).

		Firm B	
		Q=10	Q=12
Firm A	Q=10	(48, 48)	(20, 60)
	Q=12	(60, 20)	(38, 38)

What are the dominant strategy output of A and B?

- 10 units for Firm A and 10 units for Firm B
 - 10 units for Firm A and the dominant strategy for Firm B is to produce 12 units.
 - 12 units for Firm A and 10 units for Firm B.
 - 12 units for Firm A and 12 units for Firm B
18. Consider a small town that has two grocery stores from which residents can choose to buy a gallon of milk. The store owners each must make a decision to set a high milk price or a low milk price. The payoff table, showing profit per week, is provided below. The profit in each cell is shown as (Store 1, Store 2).

		Store 2	
		Low Price	High Price
Store 1	Low Price	(500, 500)	(800, 100)
	High Price	(100, 800)	(650, 650)

If grocery store 2 sets a high price, what price and payoff value should grocery store 1 set?

- Low price, \$800
 - High price, \$650
 - Low price, \$100
 - High price, \$800
19. Which of the following statements regarding a competitive firm is correct?
- Because demand is downward sloping, if a firm increases its level of output, the firm will have to charge a lower price to sell the additional output.
 - If a firm raises its price, the firm may be able to increase its total revenue even though it will sell fewer units.
 - By lowering its price below the market price, the firm will benefit from selling more units at the lower price than it could have sold by charging the market price.
 - For all firms, average revenue equals the price of the good.
20. Zach has decided to start his own photography studio. To purchase the necessary equipment, Zach withdrew Rs10,000 from his savings account, which was earning 3% interest, and borrowed an additional Rs 5,000 from the bank at an interest rate of 8%. What is Zach's annual opportunity cost of the financial capital that has been invested in the business?
- Rs 300
 - Rs 400
 - Rs 700
 - Rs 1,650

Section III (4x10 marks)

- If the average total cost curve is falling, what is necessarily true in case of the marginal cost curve? (2x5)
 - The marginal cost curve lies above the average total cost curve
 - The marginal cost curve lies below the average total cost curve
 - Both can happen depending on the cost structure of the firm
 - Marginal cost is always constant
 - Where will the marginal cost curve and average total cost curves intersect?
 - Only when Q=0
 - At minimum of average total cost curve
 - MC always lies below ATC
 - At minimum of Marginal cost
 - What are opportunity costs?
 - Cost of any business opportunity
 - Value of next best alternative forgone of any choice
 - Explicit costs
 - Long run cost
 - One reason why economies of scale may happen is:
 - Mass production techniques may lower cost
 - Bigger firms can afford better advertisement
 - Outsourcing
 - By acquiring smaller firms

- (v) At every level of output, why does long run cost is less than short run cost?
- Due to economies of scale
 - Because other loss making firms exit the market in the long run
 - All inputs of production are variable in the long run and can be optimized
 - Long run cost may not be less than short run cost
2. (i) What is market equilibrium in a demand supply framework? (1x1)
- Decided by the producer once he fixes the profit maximizing level of output
 - Intersection of the demand and supply curves
 - As determined by the government
 - Decided by the consumer depending on their requirement of a product
- (ii) Answer the questions from A to I showing, whether equilibrium price and equilibrium quantity go up, go down, stay the same, or change ambiguously (1x9)

	No Change in Supply	An Increase in Supply	A Decrease in Supply
No Change in Demand	A	B	C
An Increase in Demand	D	E	F
A Decrease in Demand	G	H	I

- A. When there is no change in supply and no change in demand
- P same, Q same
 - P up, Q same
 - P up, Q up
 - P ambiguous, Q down
- B. When there is an increase in supply but no change in demand
- P down, Q up
 - P ambiguous, Q up
 - P up, Q ambiguous
 - P down, Q down
- C. When there is a decrease in supply but no change in demand
- P down, Q up
 - P ambiguous, Q up
 - P ambiguous, Q down
 - P up, Q down
- D. When there is no change in supply but an increase in demand
- P up, Q up
 - P ambiguous, Q up
 - P up, Q ambiguous
 - P down, Q down
- E. When there is an increase in supply and an increase in demand
- P ambiguous, Q up
 - P up, Q ambiguous
 - P up, Q up
 - P down, Q up
- F. When there is a decrease in supply but an increase in demand
- P up, Q up
 - P ambiguous, Q up
 - P up, Q ambiguous
 - P down, Q down
- G. When there is no change in supply but a decrease in demand
- P down, Q ambiguous
 - P ambiguous, Q down
 - P down, Q down
 - P up, Q up
- H. When there is an increase in supply but a decrease in demand
- P down, Q down
 - P down, Q ambiguous
 - P ambiguous, Q down
 - P ambiguous, Q ambiguous

- I. When there is a decrease in supply and a decrease in demand
- P down, Q ambiguous
 - P ambiguous, Q down
 - P down, Q down
 - P down, Q up
3. (i) What should a profit maximizing firm do if marginal revenue is more than marginal cost? (3 marks)
- Decrease output
 - Increase output
 - Reduce price
 - Increase price
- (ii) At its current level of production a profit-maximizing firm in a competitive market receives Rs12.50 for each unit it produces and faces an average total cost of Rs10. At the market price of Rs12.50 per unit, the firm's marginal cost curve crosses the marginal revenue curve at an output level of 1,000 units.
- A. What is the firm's current profit? (4 marks)
- 1000
 - 2500
 - Cannot be determined
 - 0, as this is a competitive firm
- B. What is likely to occur in this market? (3 marks)
- This above firm will exit the market
 - More firms will enter the market
 - Costs will come down in the market
 - The market will remain same
4. (i) In case of monopolistic competition, why cannot the government intervene to reduce prices and raise output? (3 marks)
- There are too many sellers to monitor the market
 - The firms are already operating at zero economic profit
 - The market is already efficient and hence no need of government to intervene
 - Firms are operating at excess capacity
- (ii) Suppose a monopolist has a demand curve that can be expressed as $P=90-Q$. The monopolist's marginal revenue curve can be expressed as $MR=90-2Q$. The monopolist has constant marginal costs and average total costs of Rs10. How much quantity of output will the profit maximizing monopolist produce and at what price? (3 marks)
- 80 units, Rs 50
 - 40 units, Rs 50
 - 20 units, Rs 20
 - 10 units, Rs 10
- (iii) The following table shows a game played between two firms, Firm A and Firm B. In this game each firm must decide how much output (Q) to produce: 2 units or 3 units. The profit for each firm is given in the table as (Profit for Firm A, Profit for Firm B). (4 marks)

		Firm B	
		Q=2	Q=3
Firm A	Q=2	(10, 10)	(8, 12)
	Q=3	(12, 8)	(6, 6)

- What is the dominant strategy for each player?
- neither player has a dominant strategy.
 - both players have a dominant strategy.
 - Firm A has a dominant strategy, but Firm B does not have a dominant strategy.
 - Firm B has a dominant strategy, but Firm A does not have a dominant strategy.