

2025

ECONOMICS — HONOURS

Paper : DSCC-1

(Microeconomics-I)

Full Marks : 75

*The figures in the margin indicate full marks.**Candidates are required to give their answers in their own words as far as practicable.*

Group - A

1. Answer *any ten* questions :

2×10

- (a) How does marginal rate of substitution vary along an indifference curve between left shoe and right shoe?
- (b) What do you mean by marginal product?
- (c) What is the opportunity cost of a policy to reduce global warming?
- (d) What is the price elasticity of supply of Picasso painting? Why?
- (e) What do you mean by a mixed economy?
- (f) Sita can read 20 pages of economics or 50 pages of sociology in an hour. What is her opportunity cost of reading 100 pages of sociology?
- (g) "The government should provide basic healthcare to all its citizen." — Is it a positive statement or a normative statement? Justify your answer.
- (h) The price elasticity of demand for cigarettes is 0.4. If a packet of cigarettes costs ₹ 250 and government wants to reduce smoking by 20 per cent, by how much should it increase the price?
- (i) Ria does not like apple juice or pineapple juice alone, but likes to have a mocktail of them. Draw her indifference map indicating the direction of preference.
- (j) What will happen to the average product if the marginal product continuously decreases?
- (k) Maria's income declines and as a result, she buys more spinach. What type of good spinach is? What happens to Maria's demand curve for spinach?
- (l) What is the difference between common resource and natural monopoly?
- (m) How does the factor market differ from the product market?
- (n) What is the price elasticity of a straight-line supply curve passing through the origin?
- (o) Suppose the demand curve for ice-cream cones is given by $Q^D = 300 - 2P + 4I$; where I is the income measured in thousands of rupees. The supply curve is $Q^S = 3P - 50$. If $I = 25$, find the market clearing price and quantity for ice-cream cones.

Please Turn Over

(5596)

Group - B

2. Answer *any five* questions :

- (a) What are the limitations of Cardinal utility theory? 5
- (b) Why is the price elasticity of demand higher in the long-run compared to short-run? 5
- (c) What do you mean by trade-offs that people face while making choice? Give two examples. 2+3
- (d) How is price elasticity of supply calculated? Explain what it measures. 3+2
- (e) Define and give one example of public good. How does it differ from private good? 2+1+2
- (f) Can a set of indifference curves be upward sloping? If so, what would this tell you about the two goods? Explain positive slope of indifference curves with the help of an example. 2+3
- (g) Distinguish between 'Change in demand' and 'Change in quantity demanded'. 5
- (h) What do you mean by externality? Give an example of negative externality and an example of positive externality. $1\frac{1}{2}+1\frac{1}{2}+2$

Group - C

Answer *any three* questions.

3. Using diagrams show what changes in price and quantity would be expected in the following markets under scenarios given :

- (a) Crude oil : As petroleum reserves in Bombay High decreases, it becomes difficult to find and recover crude oil.
- (b) Air travel : Continuous disruption of flights caused by Air Traffic Control and others cause travellers to shy away from air travel.
- (c) Rail travel : Continuous disruption of flights caused by Air Traffic Control and others cause travellers to shy away from air travel.
- (d) Hotel Rooms in Goa : Continuous disruption of flights caused by Air Traffic Control and others cause travellers to shy away from air travel.
- (e) Milk : Newly repaired roads cause the cost of delivering milk to come down. 2+2+2+2+2

4. Dinesh gets an allowance of ₹ 60 per week which he spends on samosa and bread roll. Samosa costs ₹ 5 per piece and bread roll costs ₹ 7.50 per piece.

- (a) Derive Dinesh's budget equation and draw his budget line.
- (b) If he spends his entire income on bread rolls, how many bread rolls can he buy?
- (c) Now suppose with the same income and prices he chooses to consume 3 samosas and 6 bread rolls per week, is he on his budget line?
- (d) Graphically show how the budget line shifts if :
 - (i) The price of samosa decreases to ₹ 3.
 - (ii) If the income of Dinesh increases to ₹ 75. 3+1+1+(2½+2½)

5. (a) Rekha spends all her income attending plays and movies. Her utility function is given by :
 $U = 3P + M$, where P represents the number of plays and M represents the number of movies.
- Draw her indifference map.
 - Rekha earns ₹ 120 a week from tutoring. If play tickets cost ₹ 12 each and movie tickets cost ₹ 5 each, how many plays and movies will she consume per week? Explain graphically.
 - Which assumption of consumer theory is violated in this case?
- (b) Draw indifference curves that represent the following individual's preferences for hamburgers and soft drinks :
- Sarika likes hamburgers but neither likes, nor dislikes soft drinks.
 - Rita loves hamburgers and soft drinks, but insists on consuming exactly one soft drink for every two hamburgers.
 $(2+3+1)+(2+2)$
6. (a) Ravi spends all his income on two goods X and Y. If a 50 per cent increase in the price of good X does not change the amount consumed of good Y, what is the price elasticity of demand for good X?
- (b) Suppose the demand curve for a product is given by $Q = 10 - 2P + P_s$; where P is the price of the product and P_s is the price of the substitute good. The price of the substitute good is ₹ 20. Suppose P is ₹ 10. What is the price elasticity of demand? What is the cross-price elasticity of demand?
- (c) Several years ago, flooding along the Missouri and Mississippi rivers destroyed thousands of acres of wheat.
- Farmers whose crops were destroyed by the floods were much worse-off, but farmers whose crops were not destroyed benefitted from the floods. Why?
 - What information would you need about the market for wheat to assess whether the farmers as a group were hurt or helped by the flood?
 $2+(2+2)+(2+2)$
7. (a) Martha and Stewart are married. They spend their time performing two favourite activities, knitting scarves and making meatballs. Martha takes two hours to knit a scarf and 1 hour to make a dozen meatballs. Stewart takes 3 hours to knit a scarf and 2 hours to make a dozen meatballs.
- What is each individual's opportunity cost of knitting a scarf? Who has the absolute advantage in knitting scarves? Who has the comparative advantage in knitting scarves?
 - If Martha and Stewart trade with each other, who will trade away scarves in exchange for meatballs?
 - Price of a knit scarf can be expressed in terms of dozens of meatballs. What is the highest price at which a scarf can be traded that would make both spouses better off? What is the lowest price? Explain.
- (b) The United States exports corn and aircraft to the rest of the world and imports oil and clothing from the rest of the world. Do you think this pattern of trade is consistent with the principle of comparative advantage? Why or why not?
 $(3+1+3)+(1+2)$