

2023

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) What happens to a budget line if the price of good '2' increases, but, the price of good '1' and income of the consumer remain constant?
- (b) Calculate the marginal productivity of labour for the production function : $q = 3L + 2K$.
- (c) What do you mean by average product?
- (d) An increase in the demand for computer game raises the quantity supplied by 50 per cent. If elasticity of supply is 5, determine the change in price.
- (e) You like both oranges and milk but do not like them together. With the help of budget line and indifference curve show the consumers' equilibrium in this case.
- (f) If demand is unitary elastic, how will a decline in price affect total revenue?
- (g) Raya is always willing to trade one can of coke for one can of sprite or one can of sprite for one can of coke. Draw a set of indifference curves for Raya.
- (h) What is a production possibility frontier?
 - (i) Ajay is consuming two commodities X and Y. If he is indifferent between commodity bundles (10,15) and (12,14). Find the value of marginal rate of substitution of Y for X.
 - (j) What is the difference between giffen good and inferior good?
- (k) Can a set of indifference curves be upward sloping? If so, what can you tell about the two goods?
- (l) Mention two opportunity costs of attending economics honours classes in your college.
- (m) When is the indifference curve concave to the origin?
- (n) "An increase in the interest rate will cause a decline in investment."— Is it a positive or normative statement? Justify your answer.
- (o) Raja only cares about the amount of cash that he is holding and does not care at all about the belongings that he has in kind. Draw a set of indifference curves for Raja.

Please Turn Over

Group - B

2. Answer *any five* questions of the following :

- (a) What is market failure? Explain two main causes of market failure. 2+3
- (b) State the factors affecting price elasticity of demand. 5
- (c) Define marginal utility. How is it related to total utility? 2+3
- (d) How can you determine price elasticity at a point on a straight line demand curve? 5
- (e) Show how trade between two nations can make each country better-off. 5
- (f) What are the factors which lead to the shift of the supply curve? 5
- (g) How is the effect on total revenue due to price change related to elasticity of demand? 5
- (h) Explain the statement "the slope of a negatively sloped linear demand curve is constant, but the elasticity is not". 5

Group - C

Answer *any three* questions.

3. (a) Consider the following total utility schedule :

Quantity Consumed	0	1	2	3	4	5	6	7	8	9
Total Utility	0	8	13	17	20	22	23	23	22	20

- (i) Draw the total utility schedule and derive the marginal utility schedule from it.
- (ii) If the marginal utility of money (λ) is 0.5, plot the demand curve from marginal utility schedule.
- (iii) Find the equilibrium quantity demanded if the price of commodity is ₹ 4 per unit.
- (b) Suppose Rahul always consumes 2 spoons of sugar with each cup of coffee. The price of coffee is ₹ 20 per cup and price of sugar is ₹ 5 per spoon. If Rahul has ₹ 600 to spend on coffee and sugar, how much coffee and sugar would he like to purchase? With the help of budget line and indifference curve show the optimal choice of Rahul in a diagram. (2+3+1)+(2+2)
4. (a) Using supply and demand diagrams, show the effect of the following events on the equilibrium price and quantity of personal computers :
- (i) The price of computer chips falls.
- (ii) There is a rise in consumer income.
- (iii) The price of computer software rises.
- (iv) Universities require incoming freshmen to have their own personal computers.
- (b) During summer both the price and quantity demanded of ceiling fans rise. Is it a case of exception to the law of demand? Justify your answer. (2×4)+2

5. (a) Two drivers — Ram and Shyam — each drive to a petrol pump. Before looking at the price, each places an order.
 Ram says "I would like 20 litres of petrol".
 Shyam says "I would like ₹ 2,000 worth of petrol".
- What is each driver's price elasticity of demand?
 - Draw the demand curves of Ram and Shyam.
- (b) You are the curator of a museum. The museum is running short of funds, so, you decide to increase revenue. Should you increase or decrease the price of entry ticket? Explain. (3+2)+5
- 6 (a) India and Bangladesh both produce shirts and shoes. Suppose that an Indian worker can produce 10 shirts or 5 shoes per day. Suppose that a Bangladeshi worker can produce 8 shirts or 8 shoes per day.
- Which country has the absolute advantage in the production of each good? Which country has the comparative advantage?
 - If India and Bangladesh decide to trade, which commodity will India trade to Bangladesh? Explain.
 - If a Bangladeshi worker could produce 5 shirts per day, would Bangladesh still benefit from trade? Explain.
- (b) A machine can produce 4000 backpacks or 2000 bicycles in a month.
- Draw the production possibility frontier for an economy with 10 such machines.
 - What is the opportunity cost of backpacks?
 - What is the opportunity cost of bicycles? (2+2+2)+(2+1+1)
7. (a) Let there be two consumers in an economy whose demand curves are given by :
- Consumer 1: $Q_1 = 20 - 2P$
 Consumer 2: $Q_2 = 15 - P$
 Draw the individual demand curves and the market demand curve.
- (b) The supply and demand for ice cream cones are described by the following equations :
- $Q^S = -30 + 38P$
 $Q^D = 90 - 2P$
 Q is the quantity of ice cream cones per day and P is the price per ice cream cone (in ₹).
- Graph the supply curve and demand curve.
 - What is the equilibrium price and quantity? 5+(2½+2½)