# 2023

## ECONOMICS — HONOURS

Paper: CC-8

(Intermediate Microeconomics-II)

Full Marks: 65

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) Explain what is natural monopoly with an example.
- (b) Assume that Marginal cost of the monopolist is 10 rupees. The demand curve faced by him is p=100-3q. Find the equilibrium price and quantity.
- (c) For a profit maximising monopolist how is markup pricing related to elasticity of demand?
- (d) Define third-degree price discrimination.
- (e) Calculate the value of Lerner Index when P (= price) = Rs.10 and MR (= marginal revenue) = Rs. 5.
- (f) What is the implication of product differentiation in monopolistic competitive market?
- (g) According to Chamberlin why does excess capacity exist in monopolistically competitive market?
- (h) Define conjectural variation in the determination of oligopoly market.
- (i) What is the single most important characteristic in oligopolistic markets and to what problem does it lead?
- (i) What do you mean by bilateral monopoly?
- (k) Why is the production possibility curve concave to the origin?
- (I) Define public good. Give a suitable example.
- (m) Why does externality lead to market failure?

MURALIDHAR GIRLS' COLLEGE

- (n) What do you mean by Free rider problem?
- (o) Explain the difference between adverse selection and moral hazard in insurance markets.

#### Group - B

### 2. Answer any three questions:

(a) Explain whether a monopolist seeking to maximise profit will operate in the elastic or inelastic part of the demand curve.

Please Turn Over

- (b) In the Stackelberg model, the firm that sets output first has an advantage. Explain why.
- (e) How does asymmetric information between buyers and sellers lead to market failure, when a market is otherwise perfectly competitive?
- (d) Explain the idea of negative and positive consumption externalities with suitable examples and diagrams. Explain whether the following goods are public or private or common resources: (i) Free vaccination at public health department (ii) Education in private university.

  3+2
- (e) What do you understand by dead weight loss under Monopoly with reference to that of perfect competition?

## Group - C

MURALIDHAR GIRLS, COLLEGE LIBRARY

Answer any three questions.

- 3. (a) (i) Explain with the help of a diagram whether a monopolist has a supply curve.
  - (ii) A monopolist sells his output in two distinct markets between which price discrimination is possible. His total cost and the two demand curves are given by TC = 8Q + 100;  $Q_1 = 10 0.5P_1$ ;  $Q_2 = 40 P_2$ . Calculate the profit maximising values of  $P_1$ ,  $P_2$ ,  $Q_1$ ,  $Q_2$ . Prove that higher price is charged in the market with the lower price-elasticity of demand.
  - (b) (i) Mention any two factors governing the growth of monopoly.
    - (ii) Suppose the cost and demand functions of a natural monopolist are LTC =  $20q (\frac{1}{8})q^2$  and p = 50 q respectively. Determine the equilibrium level of output, price and profit / loss if the monopolist is forced to follow marginal-cost pricing rule.
    - (iii) In the above problem, if the monopolist follows the average-cost pricing rule, then what will be the equilibrium level of price and output? 2+5+3
  - (c) (i) Define Pareto efficiency. Jack has 16 litres of coca-cola and 4 sandwiches. Bob has 4 liters of coca-cola and 8 sandwiches. With these endowments, Jack's MRS of coca-cola for sandwiches is 2 and Bob's MRS of cola for sandwiches is 1. Draw an Edgeworth box diagram to show whether this allocation is Pareto efficient. Explain your answer.
    - (ii) Show that Pareto Optimality conditions are satisfied under perfect competition. (1+4)+5
  - (d) (i) The Kinked demand curve describes price rigidity. Explain how the model works. What are its limitations? Why does price rigidity occur in oligopolistic market?
    - (ii) Suppose that two identical firms are there, whose cost functions are given by  $C_1 = 60q_1$  and  $C_2 = 60q_2$ , where  $q_1$  and  $q_2$  are output of firm 1 and firm 2 respectively. The inverse demand function of firm's output is given by p = 300 q, where  $q = q_1 + q_2$ . What are the firm's output in Nash equilibrium of the Cournot model? (3+2+1)+4
  - (e) Explain the concepts of monopolistic and monopsonistic exploitation of labour. Can labour union always eliminate such exploitation?

    5+5