

2019

COMMERCE

Paper : CC-202

(Managerial Economics)

Full Marks : 40

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

Answer **any four** questions, taking **any two** from **each module**.

**Module - I**

1. (a) "The distance between two indifference curves is immaterial, the only relevant issue is which one is higher and which one is lower." — Explain the statement.
- (b) Assume that pollution is bad and automobiles are good. Draw an indifference curve in a pollution-automobile commodity space.
- (c) Explain the relation between the Slope of Price Consumption Curve and the price elasticity of demand. 3+2+5

*Or,*

- (a) Define Managerial Economics.
- (b) Consider a consumer who is in a two-commodity (X & Y) world, such that  $\frac{MU_X}{P_X} > \frac{MU_Y}{P_Y}$ . Show how the consumer will take his decision for attaining equilibrium.
- (c) Let the Utility function of a consumer be  $U = (X + 2)(Y + 1)$ . The Money income of consumer is  $M = ₹ 51$  and the price per unit of X ( $P_X$ ) is ₹ 2 and that of Y ( $P_Y$ ) is ₹ 5. Derive the demand functions of the consumer. 2+2+6

*Or,*

- (a) What is a Price Consumption Curve (PCC)? How do you derive it graphically?
- (b) Prove that the sum of the own price elasticity of demand, the cross price elasticity of demand and the income elasticity of demand for a commodity is equal to Zero. (2+4)+4
2. (a) The production function is given by  $q = \sqrt{K.L}$ , such that  $w$  (wage rate) = 2 and  $r$  (rate of interest) = 4. If the firm wants to produce 90.50 units of output ( $q$ ), find the minimum cost.
- (b) Explain (graphically) the shape of long-run industry supply curve under perfect competition, when the industry operates under increasing cost condition. 5+5

**Please Turn Over**

3. (a) Let the total cost function of a competitive firm be  $TC = q^3 - 14q^2 + 69q + 100$ .

- (i) Derive the supply curve of the firm.
  - (ii) What is the industry supply curve when the industry has 100 firms?
  - (iii) Find out the equilibrium quantity supplied by the firm when  $p = 37$ .
- (b) Show that a Monopolist has no supply curve and explain the same. (3+2+1)+4

**Or,**

- (a) A Monopolist's demand curve is  $P = 250 - 3q$ . Find out the MR function.
- (b) What is the relation between the slopes of AR, MR Curves?
- (c) Find out the maximum profit of a Monopolist whose total cost function is  $C = 10 + 15x$  and demand functions of two markets are :

$$P_1 = 55 - 2x_1$$

$$P_2 = 25 - 5x_2$$

- (d) Explain the Cournot model of Oligopoly. 2+1+2+5

4. Write short notes on *any two* of the following : 5×2

- (a) Short-run equilibrium under monopolistic competition.
- (b) Relation between returns to scale and long-run cost function of a firm.
- (c) Production function and Isoquant.
- (d) Lerner Index of Monopoly power.
- (e) Expansion path.

#### Module - II

5. (a) Consider a lottery with three possible outcomes :

- (i) ₹ 125 will be received with probability 0.2
- (ii) ₹ 100 will be received with probability 0.3
- (iii) ₹ 50 will be received with probability 0.5.

Find out the expected value of the lottery and the variance of the outcomes.

- (b) A risk averse person is offered a choice between a gamble of paying ₹ 1,000 with probability 0.25 and ₹ 100 with probability 0.75 or a certain payment of ₹ 325. Which one should he choose and why? (2+2)+6

**Or,**

What is preference pattern of a risk averter? Show how an investor will make optimum trade-off between risk and return when he divides his fund between treasury bill (risk free) and stocks (risky asset). 3+7

(3)

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6. Explain how the traditional theories of managerial decision making differ from modern theories. Discuss briefly the Cyert and March model of managerial decision making. 3+7

*Or,*

Explain the Williamson's Simplified Model of managerial discretion. 10

7. Show how the equilibrium price and quantity of a factor are determined when there is perfect competition in both the factor and commodity markets. Why is the demand for input called derived demand? 8+2
8. Explain different kinds of externalities pertaining to production and consumption. Explain with the help of a suitable diagram how the Pareto efficient state can be reached in production, commodity distribution and resource allocation. 4+6
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