

1884

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PGDIM / I Sem.

**Paper I – Managerial Economics**

Time : 3 hours

Maximum Marks : 70

Write your Roll No. on the top immediately on receipt of this question paper.

Question Nos. 1 and 6 are compulsory.

Answer *three* out of the remaining four questions.

1. Give short answers (attempt any four): (5X4)
  - a. "The applications of principles of managerial economics ensure that resources are allocated efficiently within the firm and that the firms make appropriate reactions to changes in the economic environment." Elucidate.
  - b. "Indifference curves are downward sloping and bowed inwards." Why?
  - c. Explain the meaning of a Nash Equilibrium with the help of an example.
  - d. The marginal product of a factor is greater than its average product at a given level of employment. Is the average product increasing or decreasing? Explain.
  - e. Q always spends 25% of her income on clothes. What are her price and income elasticities respectively for demand for clothes?
  - f. In econometric forecasting what are the exogenous and endogenous variables? What are structural, definitional and reduced form equations?
2.
  - a. Explain the steps involved in the estimation of a demand equation by regression analysis. (6)
  - b. What are time series data? What are the possible sources of variation in time series data? (4)
3.
  - a. The demand equation for a good X is estimated to be  $5 - 0.3P_x + 0.2 P_o$ , where  $P_o$  is the price of some other good. The average values of  $P_x$  and  $P_o$  are 30 and 60 respectively. Find the price elasticity of demand at the given average values of  $P_x$  and  $P_o$ . What is the cross elasticity at the average values of  $P_x$  and  $P_o$ ? What is the relationship between the two

- goods? How should the price of the good be changed to increase the total revenue? (1,1,1,2)
- b. Briefly distinguish between economies of scale, economies of scope and learning curves. (5)
- 4.
- a. "Perfect Competition leads to greater efficiency as compared to Monopoly". Explain. (5)
- b. What is meant by the terms peak-load pricing, two-part tariff, tying, bundling and skimming? (5)
- 5.
- a. State the basic difference between using a subsidy to induce producers to install antipollution equipment and a tax on producers who pollute. (6)
- b. What are the factors that influence the location and expansion of firms throughout the global economy? (4)
- 6.
- a. The demand equation for a monopolist is given by:  $P = 500 - 20Q$ . The marginal cost is constant and equal to 100.
- i. Find the profit maximising price and output for the monopolist. Find the corresponding level of profit as well.
- ii. Find the profit maximising price and output if the monopolist is forced to act as a perfectly competitive firm. Find the corresponding level of profit as well.
- iii. If the monopolist decides to maximise total revenue instead of profit, find the corresponding levels of price, output and profit. (3,3,3)
- b. Suppose that the production function for a commodity is given by
- $$Q = 10 K^{0.8} L^{0.6}$$
- i. If the firm increases only the quantity of capital used by 10 per cent, how much would the output increase?
- ii. If the firm increases only the quantity of labour used by 10 per cent, how much would the output increase?
- iii. If the firm increases both the quantity of labour and capital used by 10 per cent, how much would the output increase? (2,2,2)
- c. Given the total cost function  $TC = 25000 + 0.15Q + 0.1Q^2$
- i. Determine the equations for TVC, FC, AVC, AFC, AC, MC
- ii. Determine the rate of output that will minimise average cost. (3,2)