8449

B.Tech. (ME/CE) / 1   **A**

Paper EME/ECE–104 : ENGINEERING ECONOMICS AND ACCOUNTANCY

Time : 3 hours   *Maximum Marks* : 70

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

*Attempt any **three** questions from Group A and
any **two** questions from Group B.*

All questions carry equal marks.

Assume missing data, if any.

Group A

1. (*a*) What is meant by demand? What are the determinants of consumers demand?   6

   (*b*) Define cross-elasticity of demand and bring out the factors upon which it depends.   5

   (*c*) Find the price elasticity of demand for the demand function $P = \dfrac{e^x}{x}$.   3

2. (*a*) Explain the law of diminishing utility. Illustrate your answer with appropriate diagrams. Also discuss the assumptions and limitations of this law.   7

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(b) Define price elasticity of demand and show the relationship between Average Revenue (AR), Marginal Revenue (MR) and Price Elasticity (e_p).

7

3. (a) In a perfectly competitive market in the long run, price will be equal to long run average cost. Explain.

7

(b) The demand function faced by a firm is $P = 500 - 0 \cdot 2x$ and its cost function is $TC = 2 \cdot 5x + 10,000$ (P=price, x=output and TC=Total Cost). Find the output at which the profit of the firm will be maximum, and also find the price that it will charge.

7

4. (a) Define indifference curve and discuss its various characteristics. Also bring out difference between normal commodity and Giffen commodity.

7

(b) The demand for a product in last five years is given below. Forecast the demand for the product in the 10th year using line of regression.

Year	Demand
2002	1495
2003	1535
2004	1575
2005	1620
2006	1645

GROUP B

5. (a) What is Cost Accounting? What are its objectives? How do Cost Accounting records help

in the planning and controlling operations of a
business enterprise?   10

   (b) Who are the users of accounting information? 4

6. (a) Explain briefly the different elements of cost. 7

   (b) Distinguish between Unit Costing and Job Costing
and indicate the types of industries where each
would be applicable.   7

7. Write short notes on:

   (a) Direct Cost and Indirect Cost   3½

   (b) Break-even Volume   3½

   (c) Economic Order Quantity   3½

   (d) Opportunity Cost.   3½