

**INSTITUTE OF AERONAUTICAL ENGINEERING**

(Autonomous)

Dundigal-500043, Hyderabad

B.Tech V SEMESTER END EXAMINATIONS (REGULAR/ SUPPLEMENTARY) - FEBRUARY 2024

Regulation: UG 20

**BUSINESS ECONOMICS AND FINANCIAL ANALYSIS**

Time: 3 Hours

(AE | EEE | ME | CE)

Max Marks: 70

Answer ALL questions in Module I and II

Answer ONE out of two questions in Modules III, IV and V

All Questions Carry Equal Marks

All parts of the question must be answered in one place only

**MODULE – I**

1. (a) What is the importance of price elasticity ? Illustrate different methods of price elasticity with suitable formulas and graphs. [BL: Understand| CO: 1|Marks: 7]
- (b) Discuss the significance of historical data in demand forecasting. What are the challenges businesses may face when relying solely on historical data for demand estimation. [BL: Understand| CO: 1|Marks: 7]

**MODULE – II**

2. (a) Outline the terms MRTS, Cobb Douglas production function and least cost combination of inputs, Isocost and Iso Quant. [BL: Understand| CO: 2|Marks: 7]
- (b) A manufacturer sells his product at Rs. 5 each. Variable costs are Rs.2 per unit and the fixed costs amount to Rs. 60,000.
  - i) Calculate the break-even point
  - ii) What would be the profit if the firm sells 30,000 units?
  - iii) Would be the BEP if the firm spends Rs.3,000 on advertising?
  - iv) How much should be the manufacturer sell to make a profit of Rs.30,000 after spending Rs.3,000 for advertisement? [BL: Apply| CO: 2|Marks: 7]

**MODULE – III**

3. (a) Compare and contrast the characteristics of perfect competition, monopoly, monopolistic competition, and oligopoly. [BL: Understand| CO: 3|Marks: 7]
- (b) Describe how price and output are determined in a perfectly competitive market in the short run and long run [BL: Understand| CO: 3|Marks: 7]
4. (a) Interpret the role of the sole trader in decision making and management of the business organization. [BL: Understand| CO: 4|Marks: 7]
- (b) Elaborate the role of shareholders in a joint stock company. Mention their rights and responsibilities. [BL: Apply| CO: 4|Marks: 7]

## MODULE – IV

5. (a) Mention the features of capital budgeting and discuss the discounting methods of capital budgeting. [BL: Understand| CO: 5|Marks: 7]
- (b) A company has two proposals Y and Z as given in Table 1. The cost of proposals in both the cases are Rs 5,00,000 each. A discount factor of 10% may be used to evaluate the proposals. The cash flows after taxes are as under. Which proposal can be undertaken under NPV?

Table 1

Year	Proposal Y	Proposal Z
1	1,50,000	60,000
2	2,20,000	1,50,000
3	2,40,000	2,00,000
4	1,80,000	2,50,000
5	1,50,000	3,00,000

[BL: Apply| CO: 5|Marks: 7].

6. (a) State the process of investment decisions and write the factors that affect the capital budgeting decisions [BL: Understand| CO: 5|Marks: 7]
- (b) A company is considering an investment project that requires an initial investment of Rs 50,000. The expected cash inflows for the project for five years are given in Table 2: Calculate payback and accounting rate of return.

Table 2

Year	1	2	3	4	5
Cash inflows(Rs/\$)	15,000	20,000	25,000	30,000	35,000

[BL: Apply| CO: 5|Marks: 7]

## MODULE – V

7. (a) Summarize and mention the purpose of the following accounting terms: i) Journal ii) Ledger, iii) Trial balance. [BL: Understand| CO: 6|Marks: 7]
- (b) Given the following financial information for XYZ company, calculate the following ratios:
- Current Assets: \$50,000                      Current Liabilities: \$20,000  
Total Assets: \$100,000  
Total Liabilities: \$40,000  
Sales: \$120,000  
Cost of Goods Sold: \$80,000  
Net Income: \$30,000  
Equity: \$60,000  
Long-Term Debt: \$15,000  
Calculate the following ratios:
- i) Current Ratio

- ii) Debt-to-Equity Ratio
- iii) Gross Profit Margin
- iv) Net Profit Margin
- v) Return on Equity (ROE)

[BL: Apply| CO: 6|Marks: 7]

8. (a) Discuss the components of a balance sheet. How does it represent the financial position of a business [BL: Understand| CO: 6|Marks: 7]

(b) Given the following transactions for XYZ company, prepare a trial balance:

- Started business with cash: \$20,000.
- Purchased goods on credit from Supplier A: \$5,000.
- Sold goods for cash: \$8,000.
- Paid Supplier A: \$4,500.
- Received cash from customers: \$6,500.
- Paid salaries: \$1,200.
- Bought office supplies for cash: \$300.
- Borrowed a loan from the bank: \$10,000.

[BL: Apply| CO: 6|Marks: 7]

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