

K 1154

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2004.

Seventh Semester

Electrical and Electronics Engineering

MG 431 — ENGINEERING ECONOMICS AND FINANCIAL ACCOUNTING

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. State and brief any two objectives of business firms.
2. What is elasticity of demand? Brief with a diagram.
3. What are the determinants of demand? How to incorporate them in demand analysis?
4. What is statistical production function? Give an example.
5. The output of an electrical ancillary unit is 4,000 pieces per month. Its variable cost is Rs. 5 and fixed overheads are Rs. 4,000 per month. Selling price Rs. 7/piece. Estimate the minimum monthly production that may not cause any loss to the firm.
6. What is Price Discrimination? State an example.
7. What is 'Mark-up' in pricing? State any two mark-up covers.
8. Group the following into assets and liabilities of a firm :
 - (a) Provisions
 - (b) Reserves and surplus
 - (c) Secured loans
 - (d) Miscellaneous expenses and losses.
9. State the equations for acid-test ratio, current ratio.
10. State and brief the disadvantages of payback period method of investment evaluation.

PART B — (5 × 16 = 80 marks)

11. (i) State the three essential cash flows of an investment. Discuss them in detail. (8)
- (ii) A project costs Rs. 1,60,000 and is expected to generate cash inflows of Rs. 80,000, Rs. 70,000 and Rs. 60,000 at the end of each year for 3 years. Calculate the rate of return of this project. (8)
12. (a) (i) Discuss with suitable examples the various factors influencing managerial decisions. (8)
- (ii) Sales details of a company's products are given below :
- | | | | | | | | |
|---------------------------|------|------|------|------|------|------|------|
| Year : | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| Sales (in lakhs of Rs.) : | 9 | 11 | 12 | 16 | 12 | 18 | 20 |
- Forecast the sales in 2004 using the method of least squares. (8)
- Or
- (b) (i) Discuss the various types of demand with suitable illustrations. (8)
- (ii) Explain Correlation-Regression Analysis and Simple Exponential Smoothing techniques of demand forecasting with an example for each. (8)
13. (a) (i) Discuss the following :
- (1) Prime cost
 - (2) Machine hour rate
 - (3) Depreciation
 - (4) Indirect costs. (8)
- (ii) The market price of a transformer is Rs. 50,000 and the discount allowed to the distributor is 20% of the market price. It is found that selling expenses cost is 1/4th the factory cost and if the material cost, labour cost and factory overhead charges are in the ratio of 1 : 4 : 2. What profit is made by the firm on each transformer, if the material cost is Rs. 4,000? (8)

Or

- (b) (i) Discuss any four methods of accounting overheads into product cost. (4)
- (ii) The variable overhead charges for a resistor are Rs. 2 and fixed overhead charges per month are Rs. 35,100. It is found that 65,000 pieces of this resistor are manufactured per month under normal conditions.
- (1) Find the normal overhead cost per resistor.
- (2) If the production drops to 90% determine the overhead charges that are unrecovered.
- (3) If the production is increased to 130% by what amount these charges will be over-recovered? (12)
14. (a) (i) Discuss various types of pricing strategies with suitable examples. (8)
- (ii) What do you understand by a Trial Balance and Profit & Loss Account? Distinguish Trial Balance and Balance sheet. (8)
- Or
- (b) (i) Discuss the essential aspects of fund flow analysis with detailed examples. (8)
- (ii) ABC Ltd. is evaluating a project with cash-inflows of Rs. 1,00,000, Rs. 80,000, Rs. 60,000, Rs. 40,000 and Rs. 20,000 during the years 1, 2, 3, 4, & 5 respectively. With cost of capital at 12%, what is the maximum amount the company should pay for the machine? (8)
15. (a) (i) How do you calculate Internal Rate of Return? Discuss with an illustration. Also state the limitations of this approach. (8)
- (ii) Write a detailed note on the following comment :
"We use payback primarily as a method of coping with risk" (8)
- Or
- (b) (i) Discuss in detail on : Average Rate of Return, Pricing under different objectives. (8)
- (ii) A company is considering two mutually exclusive projects. Both require an initial cash outlay of Rs. 1,00,000 each and have a life of 5 years. The cash flows associated with project I is Rs. 40,000, each year for 5 years and for project II the cash flows are Rs. 60,000, Rs. 30,000, Rs. 20,000, Rs. 50,000 and Rs. 50,000 for years 1, 2, 3, 4 and 5 respectively. Calculate average rate of return for projects I and II. (8)