

10ME71

USN

Seventh Semester B.E. Degree Examination, May 2017 Engineering Economy

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, selecting atleast TWO questions from each part.

PART-A

- a. Discuss the steps in decision making.
 b. Discuss the role played by intuition and analysis in decision making.
 c. Enumerate the difference between strategy and tactics giving suitable examples.
 (06 Marks)
 (08 Marks)
- a. Briefly state and explain the conditions for present worth comparisons.
 b. A company needs a mini bus to bring its employees to work and take them home. It has two alternatives:
 - i) To buy a vehicle for a payment of Rs.3 lakhs with an operating and maintenance cost of Rs.2 lakhs per year. The salvage value of vehicle after the five year would be about Rs.50000.
 - ii) To rent a vehicle for a payment of Rs.3 lakhs per year for the next five years.

 Select the best alternatives based on present worth method of comparison using an interest rate of 13% compounded annually.

 (12 Marks)
- 3 a. Define and explain the terms:
 - i) Service life
 - ii) Accounting life
 - iii) Economic life

(09 Marks)

- b. Two models of small machines perform the same functions. Type I machine has a low initial cost of Rs.9500, relatively higher operating cost of Rs.1900 per year more that of Type II machine, and short life of 4 years. The more expensive Type II machine cost Rs.25100 and can be kept in service economically for 8 years. The scrap value from either machine of its life will barely cover its removal cost. Which is preferred when minimum rate of return is 8%?

 (11 Marks)
- 4 a. Define and explain the terms:
 - i) Internal rate of return
 - ii) External rate of return

(06 Marks)

b. Briefly explain the types of depreciation.

(08 Marks)

c. List and discuss the causes for depreciation.

(06 Marks)

PART - B

5 a. Explain the importance of estimating and costing. State the various elements of cost.

(10 Marks)

b. A small firm is producing 100 pens/day. The direct material cost is found to be Rs.160, direct labour cost is Rs.200 and factory overheads chargeable are Rs.250. If the selling cost is 40% of factory cost, what must be the selling price of each pen to realize a profit of 14.6% of selling price?

(10 Marks)

Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice. Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.



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6 a. Explain in brief the systems of book keeping.

(10 Marks)

- b. Explain the importance of balance sheet and prepare a balance sheet showing different accounts. (10 Marks)
- 7 a. How does the use of ratios help in financial analysis? Explain briefly:
 - i) Profitability ratios
 - ii) Activity ratios
 - iii) Leverage ratios

(09 Marks)

- b. The total sales call credit of a firm is Rs.640000. It has a gross profit margin of 15% and current ratio is 2.5. The firms current liability is Rs.96000, inventories Rs.48000 and cash at Rs.16000.
 - i) Determine the average inventory to be carried by the firm. If an inventory turnover of 5 times is expected.
 - ii) Determine the average collection period if the opening balance of debtors is intended to be Rs.80000. (Assume a 360 days/year). (11 Marks)
- 8 a. Briefly explain the objectives of profit planning.

(10 Marks)

b. Briefly explain the production budget and purchasing budget.

(10 Marks)

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