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15ME51

Fifth Semester B.E. Degree Examination, July/August 2022

Management and Engineering Economics

Time: 3 hrs.

Max. Marks: 80

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. Use of "Compounding Interest Factor" tables are permitted.*

Module-1

- 1 a. Explain briefly the roles of management. Classify in detail about functions of management. (08 Marks)
- b. Identify and explain types of planning. Compare the different types of plans. (08 Marks)

OR

- 2 a. Elaborate in detail about the steps in planning. List and explain characteristics of organization. (08 Marks)
- b. Explain the various steps in decision making process with a block diagram. (08 Marks)

Module-2

- 3 a. Explain the concept of departmentation. Justify the centralization and decentralization. (08 Marks)
- b. Classify and explain in detail about committee. Explain briefly the meaning and nature of communication. (08 Marks)

OR

- 4 a. Explain in detail about various styles of leadership. (08 Marks)
- b. Explain the Maslow's hierarchy of needs of theory. (08 Marks)

Module-3

- 5 a. Define the Law of Return. Explain three phases of Law of Return. (08 Marks)
- b. Explain in detail (i) Demand (ii) Supply (iii) Store (iv) Price elasticity. (08 Marks)

OR

- 6 a. List the difference between Micro and Macro Economics. (08 Marks)
- b. Find the effective rate of interest. If nominal rate of interest is 6% compounded (i) Biannually (ii) Quarterly (iii) Monthly (iv) Daily. (08 Marks)

Module-4

- 7 a. A 45 year old person is planning for his retired life. He plans to divert Rs. 50,000/- from his bonus account as investment every year for next. The bank gives 8% interest rate biannually. Find maturity value of his account when he is 60 year old. (08 Marks)
- b. Following alternatives can perform the same function at nominal rate of interest of 10%. Rank the alternatives as per Annual Equivalent worth comparison.

Sl.No.	Alternatives	First Cost (Rs.)	Life (Yr)	Salvage value (Rs.)	Annual operating cost (Rs.)
1	A	8,000	6	1000	500
2	B	3,000	3	900	600
3	C	2,000	3	700	800

(08 Marks)

OR

- 8 a. A company needs a truck to bring its employees to work and take them from home. It has two alternatives.
- (i) To rent a vehicle for payment of Rs. 4,00,000/- per year for neat 5 year.
- (ii) To buy second hand vehicle for Rs. 2,00,000/- with operation cost of Rs. 50,000/- per year. Salvage value of vehicle after 5 years would be about Rs. 75,000/-.
- Select the present worth comparison at rate of interest of 14% compounded annually. (08 Marks)
- b. Compare the following investment proposal details given below. Rank them based on Internal rate of return.

Sl.No.	Investment Proposal	Initial Investment (Rs.)	Annual Income (Rs.)	Life (Yrs)
1	Proposal 1	4,00,000/-	1,00,000/-	10
2	Proposal 2	5,50,000/-	1,40,000/-	10
3	Proposal 3	6,25,000/-	1,60,000/-	10

(08 Marks)

Module-5

- 9 a. Explain the following :
- (i) Factory cost (ii) Fixed overhead (iii) Administrative overheads
(iv) Direct Material cost. (08 Marks)
- b. A firm engaging in batch producers of 200 units having following information.
- (i) Direct material cost = Rs. 100/-
(ii) Direct Labour cost = Rs.50/-
(iii) Factory on cost = 40% of direct mass cost and direct labour cost
(iv) Overhead charges = 40% of factory cost
(v) Profit = 15% of the gross cost.
Determine selling price of each unit. (08 Marks)

OR

- 10 a. Explain briefly various of types of computing depreciation. (08 Marks)
- b. A device is purchases for Rs. 1000/- and has no salvage value. It is expected to serve for 5 years. Calculate the book value by sum of years digit method and double declining balance method. (08 Marks)

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