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18ME51

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

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. Use of Interest Factor Table is permitted.

Module-1

- 1 a. Define Management. Explain Nature and characteristics of Management. (08 Marks)
b. Briefly explain the Early Management approaches and the Modern Management approaches. (12 Marks)

OR

- 2 a. Briefly explain the important steps in Planning. (10 Marks)
b. What are the types of Decision? Explain with example. (10 Marks)

Module-2

- 3 a. List and explain in brief the principles of Organisation. (10 Marks)
b. Briefly explain MBO and MBE with advantages and disadvantages. (10 Marks)

OR

- 4 a. Explain briefly Maslow's theory of Motivation. (10 Marks)
b. Explain the essentials of a Sound Control System. (10 Marks)

Module-3

- 5 a. With a neat sketch, explain the Problem solving process in Decision making. (10 Marks)
b. State and explain the Law of Demand and Supply. (05 Marks)
c. Determine the Effective Interest Rate for a Nominal Annual rate of 8% that is compounded :
i) Quarterly ii) Semi - annually. (05 Marks)

OR

- 6 a. Discuss the Interest rate from Lender's and borrower's Point of view. (08 Marks)
b. A Company 3 years ago borrowed Rs 4,00,000 to pay for a new machine , agreeing to repay the load in 100 monthly payments at an Annual Nominal Interest rate of 12% compounded monthly. The Company now wants to pay off the loan. How much would this payment be, assuming no penalty costs for early payout?
Interest factors : $(A/P, 1\% 100) = 0.01587$; $(P/A, 1\%, 64) = 47.10277$. (12 Marks)

Module-4

- 7 a. List and explain the conditions assumed for present worth comparisons. (08 Marks)
b. 5 Million rupees are donated to a college. 20 students are to be awarded scholarships over the next 20 years. The scholarships are each of Rs 12000/- per year, The first year and increase at a rate of Rs 1500 per year over the following 19 years. Starting with the end of third year, Rs 15000 are to be spent for maintenance of the college building. This costs rises linearly at the rate of Rs 2000 per year, starting with year 4. Assuming 10% interest rate, determine how much money will be available to construct on Auditorium now.

$(A/G, 10\%, 20) = 6.50808$

$(P/A, 10\%, 20) = 8.51356$

$(A/G, 10\%, 18) = 6.05256$

$(P/A, 10\%, 18) = 8.20141$

$(P/F, 10\%, 2) = 0.82645$

(12 Marks)

OR

- 8 a. Explain briefly Rate of Return , MARR , IRR and ERR. (08 Marks)
- b. Briefly explain the following terms as applied to Asset life :
 i) Service life ii) Accounting life iii) Economic life. (06 Marks)
- c. A Company can purchase a new central computer for Rs 17500 or can lease it for 3 years with annual payments of Rs 8400. Determine at what interest rate the leasing and purchasing costs would be equivalent , if lease payments were due at the end of each year.
 (P/A , 20% , 3) = 2.10648 ; (P/A , 25% , 3) = 1.95200. (06 Marks)

Module-5

- 9 a. Explain how selling price is determined for a product with a block diagram. (07 Marks)
- b. Differentiate between Estimation and Costing. (05 Marks)
- c. The catalogue price of a washing machine is Rs 9000 and the commission allowed to the proprietor of the show room is 20%. The administrative and the selling expenses are 60% of the factory cost and material cost, labour cost and factory overheads are in the ratio of 2:3:1. If the cost of the labour on the manufacturing of machine is Rs 1650, determine the profit on each washing machine. (08 Marks)

OR

- 10 a. What is Depreciation? What are the causes of Depreciation? (06 Marks)
- b. List different methods of determining depreciation and explain any two of them. (06 Marks)
- c. A car was purchased for 400,000 and salvage value was estimated as Rs 100,000 at the end of 8 year of useful life. Calculate the book value of the car at the end of 5th year by declining balance method and straight line method of depreciation. Also find the accumulated depreciation at the end of 6th year by Declining Balance method. (08 Marks)
