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15ME51

Fifth Semester B.E. Degree Examination, July/August 2021 Management and Engineering Economics

Time: 3 hrs.

Max. Marks: 80

**Note: 1. Answer any FIVE full questions.
2. Use of Interest factors table is permitted.**

1. a. What are the various levels of management? Explain in brief. (08 Marks)
b. Explain the three important roles of manager. (08 Marks)
2. a. Discuss the importance of planning and briefly explain the hierarchy of plans. (08 Marks)
b. What is Decision making? What are its objectives? (08 Marks)
3. a. What is organizing? What are the various types of organization? (08 Marks)
b. Briefly explain the following:
i) Centralization v/s decentralization
ii) MBO and MBE. (08 Marks)
4. a. What is Motivation? Explain MC Gregor's theory X and theory Y of motivation? (08 Marks)
b. What is coordination? Briefly explain the importance and techniques of coordination. (08 Marks)
5. a. Explain in brief "Problem solving procedure" in engineering economics. (06 Marks)
b. Explain the following:
i) Price elasticity of demand
ii) Income elasticity of demand. (10 Marks)
6. a. Define Interest. Explain effective rate of interest and nominal rate of interest. (08 Marks)
b. A person avails a loan of Rs.10,000/- from a bank at an interest rate of 12% per annum. Find the amount to be repaid in 5 years if the interest is compounded.
i) Annually ii) Semiannually iii) Quarterly iv) Monthly. (08 Marks)
7. a. What are the conditions for present worth method of comparison of alternatives? Explain. (06 Marks)
b. An investor can make 3 end of year payments of Rs.15000/- which are expected to generate receipts of Rs.10000/- at the end of year 4, that will increase annually by Rs.2500/- for the following 4 years. Find the present worth of this investment at 10% interest. Use CFD for your analysis. (10 Marks)
8. a. What is equivalent annual worth method of comparison of alternatives? What is its advantage? (06 Marks)
b. A parcel of land adjacent to a proposed highway exist is deemed likely to increase in value. It can be purchased now for Rs.80000/- and is expected to be worth Rs.150,000/- (1.5 lakhs) in 5 years. During that period it can be rented for pasture at Rs.1500/year. Annual taxes are presently at Rs.850/year and will likely to remain constant. What rate of return will be earned on this investment? (10 Marks)

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



- 9 a. With the help of a chart/block diagram, explain the various elements of cost. (07 Marks)
- b. A small firm is producing 100 pens per day. The direct material cost is found to be Rs.160/-, direct labour cost is Rs.200/- and factory overheads to it are Rs.250/-. If the selling and distribution expenses are 40% of the factory cost, what must be the selling price of each pen to realize a profit of 14.6% of the selling price? (09 Marks)

- 10 a. Define Depreciation. What are the various causes of depreciation? (07 Marks)
- b. Find the depreciation amount during 5th year and book value at the end of 8th year using
 - i) Straight line method
 - ii) Declining balance method
 - iii) Sum of the years digits method, for a machinery with an initial cost of Rs.1,50,000/- and a salvage value of Rs.10,000/- after a service life of 10 years. (09 Marks)

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