CBCS SCHEME

USN | | | | | | | | | | | 15ME51

Fifth Semester B.E. Degree Examination, June/July 2019
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 Interest Factor table permitted.

Module-1

1 a. Define Management. Give a brief account of the nature of management. **(04 Marks)**
b. Explain the various functions of management. **(12 Marks)**

OR

2 a. Mention the differences between strategic planning and tactical planning. **(04 Marks)**
b. Explain the various steps of planning. **(12 Marks)**

Module-2

3 a. What is an organization? Explain the types of organization. **(08 Marks)**
b. Briefly explain the essential of sound controlling. **(08 Marks)**

OR

4 a. Explain the shaft selection process in an organization. What is MBO and MBE? **(08 Marks)**
b. Define leadership. What are the basic styles of leadership? Explain each in brief. **(08 Marks)**

Module-3

5 a. Explain the problem solving process in decision making. **(06 Marks)**
b. Explain the laws of demand and supply with an example. **(06 Marks)**
c. Explain elasticity of demand with an example. **(04 Marks)**

OR

6 a. Explain the law of returns. **(08 Marks)**
b. Determine the effective rate of interest for a nominal annual rate of 6 percent that is compounded :
(i) Semiannually (ii) quarterly (iii) monthly (iv) daily **(08 Marks)**

Module-4

7 a. The following alternatives are available for an objective.

	Plan A	Plan B	Plan C
Life cycle	6 years	3 years	4 years
First cost (Rs.)	2000	8000	10000
Annual cost (Rs.)	3200	700	500

Compare the present worth of the alternatives using an interest rate of 7% p.a. **(12 Marks)**
b. The rights to a patent have been sold under an agreement in which annual year end payments of Rs.1,00,000 are to be made for the next 10 years. What is the present worth of the agreement at an interest rate of 7%? **(04 Marks)**

OR

8 a. Two models of small machines perform the same function. Type I machine has a low initial cost of Rs. 95,000 and a relatively high operating cost of Rs. 19,000 per year, has a short life of 4 years. The more expensive Type II machine costs Rs. 2,50,000. With an operating cost of Rs. 8000 per year and has a life of 8 years. Which machine is preferred when the MARR is 8%. Use equivalent cost method. **(08 Marks)**

b. A company is currently renting a parking lot for employees and visitors and visitors use at an annual cost of Rs.9000, payable on the first of each year. The company has an opportunity to buy the lot for Rs. 50,000. Maintenance and taxes on the property are expected to cost Rs.2500 annually. Given that the property will be needed for 10 more years, determine what sales price must be obtained at the end of the period in order for the company to break even, when the interest rate is 12%. **(08 Marks)**

Module-5

9 a. Explain briefly the standard cost and marginal cost. **(04 Marks)**

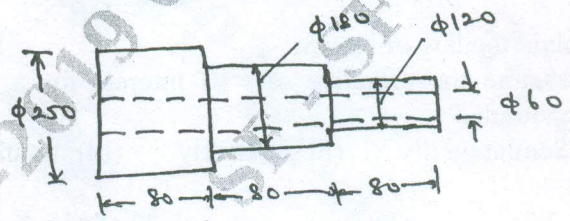
b. Explain the importance of estimating and costing. **(04 Marks)**

c. A factory produce CFL tubes in batches of 1000. The direct material cost for a batch is Rs.1600 and direct labour cost is Rs.2000. The factory overhead is 32 percent of material and labour costs. Selling and distribution costs are 20 percent of factory cost. If the management wants to make a profit of 20 percent on gross cost, determine the selling price of each tube. **(08 Marks)**

OR

10 a. A company purchases a motor cycle for its sales person at a cost of Rs.80,000 and plans to replace it at the end of 5 years. The salvage value expected is Rs. 30,000. Determine the depreciation amount and the book value at the end of each year by (i) Straight line method, (ii) Sum of years method (iii) Double declining balance method. Tabulate the values. **(12 Marks)**

b. A cost iron stepped cone pulley is shown in Fig.Q10(b). Calculate the material cost, it the density is cast iron is 7.209 gm/cc and the cost is Rs. 20/kg. **(04 Marks)**



All dimensions in mm
Fig.Q10(b)

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