Code: ME3T6

II B.Tech - I Semester – Regular/Supplementary Examinations November 2018

ENGINEERING ECONOMICS
(MECHANICAL ENGINEERING)

Duration: 3 hours   Max. Marks: 70

PART – A

Answer *all* the questions.   All questions carry equal marks
$$11x\ 2 = 22\ M$$

1. a) How is the demand for new products estimated?
   b) What is managerial economics and what is its relationship with mathematics?
   c) Distinguish between explicit costs and implicit costs.
   d) What are the disadvantages of monopoly?
   e) What are the merits of sole proprietorship?
   f) Define a joint stock company.
   g) Mr. Amit Patel needs a sum of Rs. 5,00,000 for his daughter's marriage which will take place 15 years from now. Find the amount of money that he should deposit now in a bank, if the bank gives 10% interest, compounded annually.
   h) List out the main functions of financial management.
   i) Define (I) depreciation and (II) Book value.
   j) What are the limitations of payback method?
   k) How do you calculate the accounting rate of return?

PART – B

Answer any *THREE* questions.   All questions carry equal marks.   3 x 16 = 48 M

2. a) What are the criterions of a good forecasting method?
8 M

  b) Write a note on 'demand determinants'.   8 M

3. a) Amaravathi (Pvt) Ltd company is producing timing belts used in automobiles and sells at Rs. 50 per unit. The variable cost is Rs. 35 and the fixed cost amounts to Rs. 9 Lakhs per annum. With this data, you are required to calculate the following, treating each independent of the other   10 M
    i) Calculate breakeven point.
   ii) How much should the company sell to make a profit of Rs. 15,000 per annum?
  iii) What would be the profit if the firm sells 1,00,000 units.

  b) Describe the concept of 'isoquants' with suitable example.   6 M

4. a) What changes have you observed in Indian business environment after implementation of liberalization policies? Discuss.   8 M

b) Describe the advantages and disadvantages of partnership enterprises. 8 M

5. a) Texno Casting Ltd. wants to install a furnace as a part of its expansion plans to make special steel. After much study and calculation, company identified two best alternatives and the details are as given in the following table:

	Electric arc furnace	LD furnace
First cost (Rs.)	30,00,000	20,00,000
Annual income (Rs.)	6,00,000	5,00,000
Life of furnace	10	10
Salvage value (Rs.)	3,00,000	2,00,000

Evaluate the alternatives based on the future worth method at $i = 12\%$. 10 M

b) List out the rules of double – entry system of debit and credit. 6 M

6. a) The India Gears (Pvt) Company has just purchased a CNC Milling machine for Rs. 30,00,000. The plant engineer estimates that the machine has a useful life of five years and a salvage value of Rs. 10,000 at the end of its useful life. Compute the depreciation schedule for the machine by Sum-of-the-years digits method. 10 M

b) Elucidate the nature of capital budgeting problem. What is the objective of capital budgeting? 6 M