	Utech
Name:	
Roll No.:	In place of the Sample for San Explana
Invigilator's Signature :	

## CS/M.TECH (IEM)/SEM-2/IEM-201/2012 2012

## **MANAGERIAL ECONOMICS**

Time Allotted: 3 Hours Full Marks: 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Answer any *five* questions.  $5 \times 14 = 70$ 

- 1. a) Explain Margin of Safety with reference to B/E analysis.
  - b) A manufacturing organization is having the following data:

	Prod. A	Prod. B
Sales/unit	12.00	12.00
Var. Cost	6.00	7.00
Fixed cost	80,000.00	80,000.00

There is a critical material of which the availability is restricted to 1000 kg. Prod. *A* needs 0.2 kg/pc of that material and Prod. *B* needs 0.1 kg/pc. Decide the product mix for maximizing profit. 5+9

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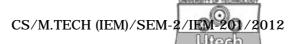
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- 2. a) Explain Price Elasticity of Demand.
  - b) Compare essential characteristics of Perfect Competition and Monopolistic Competition with Product Differentiation. 5+9
- 3. a) Describe the characteristics of Monopoly and mention the constraints faced by a monopoly to raise prices indefinitely.
  - b) Explain Price distrimination and the necessary conditions for the same. 5+9
- 4. A manufacturing company wishes to buy a new capital equipment. The relevant data table is as follows :

Year 1 2 3 4 5 6 Cost 5,00,000 2,00,000 - - - - profit - 1,50,000 2,00,000 2,00,000 2,00,000 2,00,000

Cost of equity is 12% and that of debt is 16%, Tax rate is 40%. The Debt equity Ratio cannot exceed 50: 50 as per regulations of the lending authority. Decide course of action.

- 5. a) Explain graphically Production Function and variable Returns to Scale.
  - b) Describe the concept of Factor pricing and in this context explain Marginal Physical Productivity and Marginal Revenue Productivity. 7+7



6. Following data refers to a pollution control equipment in a chemical plant :

Year	Operating	Cost of New	Salvage value
	Cost	equip.	
	Rs.	Rs.	Rs.
1	2500	10000	2500
2	3000	7500	1250
3	3500	8000	1000
4	4000	8500	750
5	5000	9000	500

Find out the most optimum replacement period. Govt. introduces a scheme for refund of 50% of the cost of new machine if replacement is done within 3 years should be company avail it?

7. Following data is extracted from the Balance Sheet of a Company:

	Rs.		Rs.
10000 shares of		Plant & Equipment	2,00,000
Rs. 10 each	1,00,000	Less Depreciation	
Reserve and Surplus	50,000	(50,000)	
Long Term loan secured	2,00,000	Inventory	1,00,000
Outstanding Bills Payable	50,000	Bills Receivable	50,000
		Cash at Bank	50,000
Total	4,00,000	Total	4,00,000

Find out

- a) Net Worth per share
- b) Debt Equity ratio
- c) Current ratio. 5 + 4 + 5

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- 8. Write notes on any *two* of the following :
  - a) Indifference Curve and Income Effect
  - b) Cobb-Douglas Production Function
  - c) Group Replacement
  - d) Cash B/E Point
  - e) Cost of capital.



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