

Reg. No.																			
----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Question Paper Code	12284
---------------------	-------

**B.E. / B.Tech. - DEGREE EXAMINATIONS, NOV / DEC 2023**

Seventh Semester

**Production Engineering**

**20HSMG701 - ENGINEERING ECONOMICS AND FINANCIAL MANAGEMENT**

(Regulations 2020)

Duration: 3 Hours

Max. Marks: 100

**PART - A (10 × 2 = 20 Marks)**

Answer ALL Questions

- |   | <i>Marks,<br/>K-Level, CO</i> |
|---|-------------------------------|
| 1. Define Economics.                                  | <i>2,K1,CO1</i>               |
| 2. Define Economic Efficiency.                        | <i>2,K1,CO1</i>               |
| 3. What are the responsibilities of an accountant?    | <i>2,K1,CO2</i>               |
| 4. Differentiate Trading and Profit and Loss Account. | <i>2,K2,CO2</i>               |
| 5. What is depreciation?                              | <i>2,K1,CO3</i>               |
| 6. What are the components of balance sheet?          | <i>2,K1,CO3</i>               |
| 7. What is fixed cost? Give example.                  | <i>2,K1,CO4</i>               |
| 8. Define contribution.                               | <i>2,K1,CO4</i>               |
| 9. What is LIFO?                                      | <i>2,K1,CO5</i>               |
| 10. Define capital budgeting.                         | <i>2,K1,CO6</i>               |

**PART - B (5 × 13 = 65 Marks)**

Answer ALL Questions

- |  |                  |
|--|------------------|
| 11. a) Explain in detail about law of supply and demand with examples.   | <i>13,K2,CO1</i> |
| <b>OR</b>  |                  |
| b) Discuss in detail about the demand analysis.  | <i>13,K2,CO1</i> |
| 12. a) Explain the various types of accounting.  | <i>13,K2,CO2</i> |
| <b>OR</b>  |                  |
| b) Explain the key principles of GAAP.   | <i>13,K2,CO2</i> |
| 13. a) A company has purchased an equipment whose first cost is Rs.1,00,000 with an estimated life of eight years. The estimated salvage value of the equipment at the end of its lifetime is Rs. 20,000. Determine the depreciation charge and book value at the end of various years using the straight line method of depreciation and also compute the depreciation and the book value for period 5. | <i>13,K3,CO3</i> |

**OR**

- b) Describe in detail the components of a balance sheet with examples. *13,K2,CO3*
14. a) The fixed costs for the year 2021-22 are Rs.6, 00,000, variable cost per unit is Rs.40. Each unit sells at Rs.160. Determine. *13,K2,CO4*
- BEP in terms of physical units and Rupees.
  - If a sales volume of 5500 units has been expected, then What will the profit or loss earned?
  - If a profit target of Rs.1,20,000 has been budgeted, compute the number of units to be sold
  - If the Company sells 6500 units, Calculate the margin of safety.

**OR**

- b) Describe with suitable example the effect of sales price and volume changes on profit. *13,K2,CO4*
15. a) Illustrate the inventory valuation methods with example. *13,K2,CO5*
- OR**
- b) How do you estimate the working capital requirement? Explain with numerical example. *13,K2,CO5*

**PART - C (1 × 15 = 15 Marks)**

16. a) The Alfa Company limited considering the purchase of a new machine. Two alternative machines X and Y have been suggested, each having an initial cost of Rs. 40,000/- and requiring Rs. 2,000/- as additional working capital at the end of the 1st year. Cash flows after taxes are as follows Year Cash Flows. *15,K3,CO6*

Year	Cash Flows	
	Machine X (Rs.)	Machine Y (Rs.)
1	4,000	12,000
2	12,000	16,000
3	16,000	20,000
4	24,000	12,000
5	16,000	8,000

The company has a target return on capital of 10% and on this basis you are required to compare the profitability of the machines and state which alternative you consider as financially preferable.

**OR**

- b) A choice is to be made between the two competing proposals which require an equal investment of Rs 50,000/- and are expected to generate net cash flows as under *15,K3,CO6*

Year	Cash Flows	
	Project A (Rs.)	Project B (Rs.)
1	25,000	10,000
2	15,000	12,000
3	10,000	18,000
4	NIL	25,000
5	12,000	8,000
6	6,000	4,000

Cost of capital of the company is 10%. The following are the present factor at 10% P.A. Which proposal should be selected using NPV method? Suggest the best project.