U.S.N.										

B.M.S.College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

January / February 2025 Semester End Main Examinations

Programme: B.E. **Semester:V**
Branch: Industrial Engineering and Management **Duration: 3 hrs.**
Course Code: 22IM5PCCEF **Max Marks: 100**
Course: Corporate Economics and Finance

Instructions:1.Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

			UNIT - I	CO	PO	Marks
1	a)		Discuss the importance of drawing a cash flow diagram for analyzing economics problems. Also classify and explain them in brief.	CO1		05
	b)		ABB Industry is planning to expand its production operation. It has identified three different technologies for meeting the goal. The initial outlay and annual revenues with respect to each of the technologies are summarized in Table below. Suggest the best technology which is to be implemented based on the present worth method of comparison assuming 20% interest rate, compounded annually.	CO2 CO3	PO1 PO2	15
			OR			
2	a)		Brief on the conditions applicable for PW comparison	CO1		05
	b)		There are two alternatives for purchasing a concrete mixer. Both the alternatives have same useful life. The cash flow details of alternatives are as follows; Alternative-1: Initial purchase cost = Rs.3,00,000, Annual operating and maintenance cost = Rs.20,000, Expected salvage value = Rs.1,25,000, Useful life = 5 years. Alternative-2: Initial purchase cost = Rs.2,00,000, Annual operating and maintenance cost = Rs.35,000, Expected salvage value = Rs.70,000, Useful life = 5 years. Using present worth method, find out which alternative should be selected, if the rate of interest is 10% per year. Also draw cash flow diagram	CO2 CO3	PO1 PO2	15

	Initial outlay (Rs.)	*Annual revenue* (Rs.)	*Life* (years)
Technology 1	12,00,000	4,00,000	10
Technology 2	20,00,000	6,00,000	10
Technology 3	18,00,000	5,00,000	10

			UNIT - II			
	3	a)	Explain the structure of capital recovery factor using suitable example	*CO1*		**10**
		b)	There are two alternatives for purchasing a concrete mixer and following are the cash flow details; Alternative-1: Initial purchase cost = Rs.300000, Annual operating and maintenance cost = Rs.20000, Expected salvage value = Rs.125000, Useful life = 5 years. Alternative-2: Initial purchase cost = Rs.200000, Annual operating and maintenance cost = Rs.35000, Expected salvage value = Rs.70000, Useful life = 5 years. The annual revenue to be generated from production of concrete (by concrete mixer) from Alternative-1 and Alternative-2 are Rs.50000 and Rs.45000 respectively. Compute the equivalent uniform annual worth of the alternatives at the interest rate of 10% per year and find out the economical alternative.	*CO2* *CO3*	*PO1* *PO2*	**10**
			OR			
	4	a)	Brief on MARR in relation to rate of return calculations.	*CO1*		**05**
		b)	A firm has identified three mutually exclusive investment proposals whose details are given below. The life of all the three alternatives is estimated to be five years with negligible salvage value. The minimum attractive rate of return for the firm is 12%. *Alternative* *A1* *A2* *A3* Investment Rs. 1,50,000 Rs. 2,10,000 Rs. 2,55,000 Annual net income Rs. 45,570 Rs. 58,260 Rs. 69,000 Find the best alternative based on the rate of return method of comparison.	*CO2* *CO3*	*PO1* *PO2*	**15**
			UNIT - III			
	5	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.	*CO2*	*PO1*	**05**
		b)	A firm is considering replacement of an equipment, whose first cost is Rs. 4,000 and the scrap value is negligible at the end of any year. Based on experience, it was found that the maintenance cost is zero during the first year and it increases by Rs. 200 every year thereafter. When should the equipment be replaced if i = 12%?	*CO2* *CO3*	*PO1* *PO2*	**15**
			OR			
	6	a)	The initial cost of a piece of construction equipment is Rs.3500000. It has useful life of 10 years. The estimated salvage value of the equipment at the end of useful life is Rs.500000. Calculate the annual depreciation and book value of the construction equipment using SOYD and sinking fund method. (i = 8 percent).	*CO2, CO3, CO4*	*PO1, PO2*	**15**

	b)	Discuss causes of inflation and methods to measure the inflation	*CO1*		**05**
		UNIT - IV			
7	a)	Discuss about the Classification of Accounts with the golden rules.	*CO1*	*PO3*	**08**
	b)	Journalize the transactions as on a particular date Jan 1st: commenced business with cash Rs.5000/-, furniture Rs.2000/- and machinery Rs.5000/- Jan 2nd: paid into bank, Rs.2000/- Jan 3rd: purchased goods Rs.2000/- Jan 4th: purchased goods from Krishna Rs.3000/- Jan 5th: sold goods Rs.3000/- Jan 6th: goods returned to Krishna Rs.1000/- Jan 7th: sold goods to Rama Rs.2000/- Jan 8th: paid rent Rs.100/-, wages Rs.100/- and salaries Rs.500/-	*CO3*	*PO4*	**12**
		OR			
8	a)	Define accounting, list the steps and functions of accounting	*CO1*		**05**
	b)	Journalize the following transactions in the books of Nancy Ltd. *2003 March* — *Rs. in lakhs* 1 Started business with Cash — 4,500 1 Paid into bank — 2,500 2 Goods purchased for Cash — 1,500 3 Purchase of furniture and payment by cheque — 500 5 Sold goods for cash — 600 8 Sold goods to Rosy — 400 10 Goods Purchased from Thomas — 700 12 Goods Return to Thomas — 100 15 Sold goods to Rahavan for cash — 250 18 Cash received from Rosy Rs.396 & discount allowed to her Rs.4 21 Withdraw from bank for private use — 100 21 Withdraw from bank for use in the business — 500 25 Paid telephone rent for one year — 40 28 Cash paid to Rosy in full settlement of her account — 594 30 Paid for Stationery — 20 Rent paid — 100 Salaries to Staff — 250	*CO2, CO3*	*PO1, PO2*	**15**
		UNIT – V			
9	a)	Make an assessment of comparative position of the firm after taking the following data, calculate the relevant ratio and comment on it.	*CO4*	*PO2*	**10**

Particular	Firm A	Firm B	Firm C
Average inventory	10,00,000	15,00,000	20,00,000
Sales	66,00,000	83,00,000	89,60,000
Cost of goods sold	60,00,000	75,00,000	80,00,000
Expense of management	5,00,000	7,60,000	10,00,000
Receivable (Debtors)	13,20,000	24,97,500	35,84,000

		b)	Calculate the current assets of the company with following information Stock turnover = 5 times Stock at the end = Rs. 5000 more than stock at beginning Sales = Rs2,00,000 Gross profit = 20% of sales Current liability = Rs.60,000 Quick ratio =0.75	*CO3*	*PO2*	**10**
			OR			
	10	a)	Classify and list the financial ratio's on the basis of balance sheet, Profit & Loss account	*CO1*		**05**
		b)	From the following Trading and Profit and Loss Account of Ramesh & Co. for the year 31st Dec. 2003 : Calculate: (1) Gross Profit Ratio. (2) Operating Ratio. (3) Operating Profit Ratio. (4) Net Profit Ratio.	*CO2, CO3*	*PO1, PO2*	**15**

	Rs.		Rs.
To Opening Stock	60,000	By Sales	4,00,000
To Purchase	2,75,000	By Closing Stock	75,000
To Wages	25,000		
To Gross Profit c/d	1,15,000		
	4,75,000		4,75,000
To Administrative Expenses	45,000	By Gross Profit b/d	1,15,000
To Selling and Distribution Expenses	10,000	By Interest on Investment	10,000
To Office Expenses	5,000		
To Non Operating Expenses	15,000		
To Net Profit	50,000		
	1,25,000		1,25,000

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