U.S.N.										

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

Autonomous Institute Affiliated to VTU

July 2024 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)	Briefly explain the steps involved in problem solving and decision-making process.	CO1	PO3	**06**
	b)	Max buys a car, making an initial payment of Rs 1,00,000/- and taking a loan of Rs 1,50,000/- from Bank. He makes equal monthly payments of Rs 8,000/- to bank to clear the loan in full for a period of 2 years. After making the last payment, he sells the car for 1,50,000/-. Draw 2 CFD for Max and bank for the above cash flows.	CO1	PO3	**04**
	c)	Consider the following 2 mutually exclusive alternatives related to an improvement project and recommend which one should be implemented. Use the present worth method. Assume the analysis period to be 10 years.	CO2	PO2	**10**

	Machine A	Machine B
Investment cost	2000	30000
Salvage value	4000	0
Annual receipts	10000	14000
Annual cost	4400	8600
Useful Life(Years)	5	10
Minimum attractive ROR = 15%		

		UNIT - II			
2	a)	Define the following: Service life, accounting life and economic life.	CO1	PO3	**06**
	b)	List the advantages and limitations of present value method	CO1	PO3	**06**

		c)	A company has three proposals for expanding its business operations. The details are as follows. Each alternative has in significant salvage value at the end of its life. Assuming an interest rate of 15% compound annually. Find the best alternative for expanding the business operations of the company using the annual equivalent method.	*CO1*	*PO3*	**08**
			OR			
	3	a)	List the assumptions in ROR calculations	*CO1*	*PO3*	**04**
		b)	Alternative A has an initial cost of Rs 1500 and a positive cash flow that returns Rs 200 the first year and increases by Rs 200 each of the following years until the end of the 5-year study period. Alternative B also has a year life and an initial cost of Rs 1500. Its positive cash flow is constant at Rs 200 for the last 4 years. It also has another receipt in year 1. All receipts occur at the end of the year. What is the rate on alternative A.	*CO2*	*PO2*	**06**
		c)	An automobile company is planning to buy a robot for its forging unit. It has identified two different companies for the supply of robot. The details of the cost and incremental revenue of using robots are shown in below table. The MARR for the company is 12%. Suggest the best brand of robot to the company based on ROR method.	*CO2*	*PO2*	**10**
			UNIT - III			
	4	a)	Briefly explain the reasons of depreciation.	*CO1*	*PO3*	**10**
		b)	In a company, a CNC machine costs Rs 30 Lakhs and is estimated to serve 8 years after which its salvage value is estimated to be Rs 2 Lakh 50 thousand. Find i) Depreciation fund at the end of the 5^{th} year by fixed year percentage method by declining balance method. ii) Book value of the machine after 4^{th} and 6^{th} year by declining balance method.	*CO2*	*PO2*	**10**

Alternative	Initial Cost	Annual Revenue	Life (Yrs)
1	25 Lakhs	8 Lakhs	10
2	20 Lakhs	6 Lakhs	10
3	30 Lakhs	10 Lakhs	10

	Company A	Company B
Initial cost Rs	5 Lakhs	9 Lakhs
Annual incremental revenue Rs	80 thousand	250000
Life Yrs	8	8
Life and salvage value Rs	40000	60000

			OR			
	5	a)	Define inflation. Briefly explain the causes and consequences of inflation.	*CO2*	*PO2*	**10**
		b)	Define lease and buying. Enumerate the difference between lease and buying.	*CO2*	*PO2*	**10**
			UNIT - IV			
	6	a)	Prepare the trial balance for the following ledger balances:	*CO3*	*PO2*	**08**

Particulars	**Rs**
Capital Account	10,000
Debtors	2,700
Purchases	9,500
Wages	5,000
Goods in trade	2,000
Sales	14,500
Carriage	150
Machinery	3,500
Drawings	900
Creditors	1400
Bank	1500
Rent	450
Sundry expenses	200

		b)	The following are the balances extracted from the books of ABC company on 31 st Dec 2004. Prepare the balance sheet as on that date.	*CO3*	*PO2*	**12**

Debit Balances	**Rs**
Opening stock	750
Purchases	1490
Returns inwards	40
Duty on import goods	260
Carriage on purchases	140
Carriage on sales	200
Office salaries	240
Drawings	400
Rent paid	180
General Expenses	150
Bank balance	300
Cash in hand	100
Sundry debtors	1000
Buildings	2000
Machinery	1000
Bills receivables	250
Depreciation	200
Horses and carts	150
Interest	90
Discount	10

				Credit balances	**Rs**			
				Capital	2625			
				Returns outwards	45			
				Sales	3810			
				Commission earned	200			
				Bills payables	1500			
				Sundry creditors	770			
				Adjustments				
				Closing stock and	985			
				Rent due but not paid (outstanding expenses)	30			
			UNIT - V					
	7	a)	Define the following: Setup time, Operation time, Tear down time, Prime cost, Office cost, Factory cost.			*CO2*	*PO2*	**06**
		b)	The following information is extracted from XYZ company for the year end 30th Apr 2004. Prepare a cost sheet, showing the various elements of cost and also profit/lost details.			*CO3*	*PO2*	**14**

Particulars	**Amount Rs**
Direct material	2400000
Direct labor	500000
Depreciation on factory building	150000
Sales branch office expenses	40000
Depreciation of office building	8000
Depreciation on staff cars	12000
Insurance on staff cars	1500
Insurance on office building	1200
Insurance on factory building	1500
Delivery and other distribution expenses	10000
Salaries including sales manager	25000
Factory chief engineer	25000
Finished goods warehouse expenses	20000
Electricity	4000
Advertisement	20000
Factory expenses	340000
Sales promotion	5000
Office administrative expenses	50000
Expense for participating in industrial exhibition	10000
Total sales	4200000

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