



MANIPAL INSTITUTE OF TECHNOLOGY

MANIPAL (A constituent unit of MAHE, Manipal)

VI SEMESTER B.TECH. (CIVIL ENGINEERING)

END SEMESTER EXAMINATIONS, APRIL/MAY 2019

SUBJECT: RESOURCE MANAGEMENT [CIE 4004]

REVISED CREDIT SYSTEM

(/ / 2019)

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

- ✤ Answer ALL the questions.
- ✤ Missing data may be suitably assumed.

Q. No																М	со					
	Perform ABC analysis to classify the materials tabulated below. Suggest the purchase																					
1A.	and inventory policies			es for v	s for various class of items.																	
	Item. No		1	2	3	}	4	4 5		6 7		8	ļ	€ 10								
	Unit Price (×100 ₹)		25	2	4	500	38	2	4	431	9	1		113	350	6	2					
	Quantity Consumed		1875	250	00 1	875	1500	2250	00 1	969	17500	375	00	1125	188							
	Annually																					
40	Explain material management function pertaining to i) Material planning ii) Procurement												3+1	1								
ID.	and iii) Custody. Discuss the limitations in classical approach of materials management.													••••	•							
2A.	Classify the coding system based on its significance and methods. Discuss t methodology of Renard's series of preferred numbers. List the benefits of mater										s the aterial	1+2+1	2									
	standerdisation.																					
	Prepare a purchase strategy using hindsight approach for the following data pertaining												aining									
	to a construction material. Monthly requirement is 30 units and maximum inventory												entory									
2B.		Month	1	2	3	4	5	6	7	8	9	10	11	12]							
		Price	508	517	465	518	481	530	504	490	490	511	503	530	-	6	3					
		Month	13	14	15	16	17	18	19	20	21	22	23	24	_							
		Price	416	397	434	442	430	431	430	<u>41</u> 4	431	436	434	402	_							
		THUC	410	001	-0-	772	400	101	-50		101	400	-0-	702								
	capa	capacity is three months' requirement																				
	Perfo	orm an e	conom	nic ana	alysis	to de	ecide d	on the	mos	st fea	sible pu	urchas	se op	otion o	on the							
	following equipment using internal rate of return method. Take r=11 %, salvage value is																					
	expected at 10 %. Which equipment is more profitable?																					
															F	2						
3A.	Equipment		Ca	apital GA			R (lakhs ₹)			ADED (lakhs ₹)					Useful life		3					
			Inves (lak	/estment akhs ₹)										(years)								
		A 113 53, 56, 56, 57, 54, 53 23, 24, 25, 24, 23, 23						e														
		В	B 100 42, 43, 44, 44, 41, 40 23, 20, 20, 17, 19, 20 0																			



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0.5	Suggest an ideal price forecasting method among average and moving average methods (N=3) for the following time series data.												3
3B.	Wohth	1	2	ব	4	5	6	1	8	9	10	J	5
	Year-1	222	204	200	223	216	190	223	209	228	198		
	Year-2	192	210	180	216	192	198	210	216	228	210		
4A.	Explain 'cost of quality' with all its components.											4	4
4B.	Distinguish between quality assurance and quality control based on its definition, objectives and tasks involved to achieve them.												4
4C.	List any nine dimensions of quality.											3	4
5A.	Explain the stages in the implementation of the quality function deployment (QFD) process. List any two benefits of implementing QFD process.										3+1	5	
5B.	Explain the steps to prepare a scatter diagram. Explain how to interpret the scatter diagram?										3	5	
5C.	What is a histogram? Explain the traits of distribution of a histogram.										3	5	