

Code: 22MEMD2T6C

I M.Tech - II Semester – Regular Examinations - JULY - 2023

**CONCURRENT ENGINEERING
(MACHINE DESIGN)**

Duration: 3 hours

Max. Marks: 60

Note: 1. This paper contains 4 questions from 4 units of Syllabus. Each unit carries 15 marks and have an internal choice of Questions.

2. All parts of Question must be answered in one place.

BL – Blooms Level

CO – Course Outcome

			BL	CO	Max. Marks
UNIT-I					
1	a)	Discuss about Integrated product development.	L2	CO1	8 M
	b)	Explain about CE tool box collaborative product development.	L3	CO1	7 M
OR					
2		Define and explain the term concurrent engineering? Why it is concurrent? List out and discuss about the main objectives of concurrent engineering?	L2	CO1	15 M
UNIT-II					
3	a)	What do you mean by product life cycle? What is life cycle cost?	L2	CO2	8 M

	b)	List and explain essential features of optimal structural design process.	L3	CO2	7 M
OR					
4		Define compatibility index. Explain the compatibility approach of modeling Concurrent Engineering (CE) design.	L3	CO2	15 M
UNIT-III					
5	a)	Elaborate the need of conceptual design mechanism.	L2	CO3	7 M
	b)	Interpret about intelligent design for manufacturing system.	L2	CO3	8 M
OR					
6		Describe about modelling and reasoning for computer based assembly planning with an example.	L3	CO3	15 M
UNIT-IV					
7	a)	Give preliminary evaluation Procedure to perform economic evaluation of manufacturing cost.	L3	CO4	8 M
	b)	Discuss about negotiation in Concurrent Engineering design.	L2	CO4	7 M
OR					

8	Write short notes on the following: (i) Decomposition in concurrent design (ii) Some aspects of design for economics.	L3	CO4	15 M
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