

Code: 20ME2501A

**III B.Tech - I Semester – Regular / Supplementary Examinations
NOVEMBER 2024**

**DESIGN THINKING
(Common to ALL Branches)**

Duration: 3 hours

Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 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)	Explain the applications and limitations of Design thinking.	L1	CO1	5 M
	b)	Illustrate the features of Design thinking.	L1	CO1	9 M
OR					
2	a)	Compare Design thinking with Engineering thinking.	L2	CO1	7 M
	b)	Explain the stages of Design thinking.	L1	CO1	7 M
UNIT-II					
3	a)	Demonstrate the process of constructing an empathy map.	L3	CO2	9 M
	b)	Describe the advantages and disadvantages of an empathy map.	L2	CO1	5 M

OR					
4	a)	Illustrate the process of developing the customer journey map.	L3	CO2	7 M
	b)	Describe HCD (Human Centered Design) process in Design thinking with example.	L2	CO1	7 M
UNIT-III					
5	a)	What is meant by Point of View (POV)? Explain the procedure to formulate POV.	L2	CO2	7 M
	b)	Demonstrate the Bingo selection process for concept selection.	L3	CO2	7 M
OR					
6	a)	Describe the process involved in defining the problem from the collected requirements.	L2	CO2	7 M
	b)	Demonstrate the Four Categories of ideation methods for the concept selection.	L3	CO2	7 M
UNIT-IV					
7	a)	Explain the primary guidelines and qualities of prototyping in Design thinking.	L2	CO4	7 M
	b)	Differentiate the moderated and un moderated user testing approaches.	L2	CO4	7 M
OR					
8	a)	Interpret on the usage of prototyping in various stages of design thinking.	L3	CO4	8 M
	b)	Explain the following user testing methods: (i) A/B Testing (ii) Tree Testing	L3	CO4	6 M

UNIT-V

9	a)	Appraise the levels of innovation with suitable examples.	L3	CO3	7 M
	b)	Relate the design thinking process in a product innovation.	L3	CO3	7 M

OR

10	a)	Plan the role of design thinking in an organizational innovation.	L3	CO3	5 M
	b)	Explain the concept of innovation towards design with a case study.	L3	CO3	9 M