

Code: 20ME2501A

**III B.Tech - I Semester – Regular / Supplementary Examinations
NOVEMBER 2023**

**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)	What is design thinking? Explain the five stages of Stanford design thinking model with suitable examples.	L2	CO1	7 M
	b)	Difference between Design thinking vs. Engineering thinking.	L2	CO1	7 M
OR					
2	a)	Why Design thinking is important? Explain various process models involved in design thinking.	L2	CO1	7 M
	b)	Differentiate design, Engineering design, and Design thinking.	L2	CO1	7 M
UNIT-II					
3	a)	Discuss the importance of Human Centered Design with suitable examples.	L3	CO2	7 M

	b)	Referring to the image below, Use the empathy map technique to bring three changes to the existing product in the point of un-comfort and riding effort.	L3	CO2	7 M
					
OR					
4	a)	What is empathy mapping? Explain the role of empathy mapping in Design thinking.	L3	CO2	7 M
	b)	What is a Customer journey map? Explain the customer journey map for purchasing of laptop.	L3	CO2	7 M
UNIT-III					
5	a)	Justify the need of define stage in Design thinking. Explain the different methods involved in it.	L3	CO2	7 M
	b)	Elaborately explain the six thinking hats method in Design thinking.	L3	CO2	7 M
OR					
6	a)	What is the ideation stage in Design thinking? Explain the different methods involved in it.	L3	CO2	7 M
	b)	With a suitable example explain the define stage in Design thinking.	L3	CO2	7 M

UNIT-IV					
7	a)	Describe the importance of making a prototype. Explain the different techniques involved in it.	L3	CO4	7 M
	b)	Explain high-fidelity prototype with a suitable examples.	L4	CO4	7 M
OR					
8	a)	What is prototyping in Design thinking? Mention its types and characteristics.	L3	CO4	7 M
	b)	Explain low-fidelity prototyping with a suitable example.	L4	CO4	7 M
UNIT-V					
9	a)	Describe the innovation in Design thinking.	L3	CO3	7 M
	b)	Explain the role of innovation happened in the mobile industry.	L3	CO3	7 M
OR					
10	a)	Explain different types of innovations in Design thinking.	L3	CO3	7 M
	b)	What are the different characteristics of innovations in Design thinking	L3	CO3	7 M