

Code: 20ME2501A

III B.Tech - I Semester – Regular Examinations - DECEMBER 2022

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)	Demonstrate how is design thinking different from Engineering thinking?	L3	CO1	7 M
	b)	Classify various design thinking frame works. Explain Champion frame work and continuum frame work.	L2	CO1	7 M
OR					
2	a)	Explain the importance of design thinking process.	L2	CO1	7 M
	b)	Summarize the features and applications of design thinking process.	L2	CO1	7 M
UNIT-II					
3	a)	Illustrate the human centered design process. Explain with suitable example.	L3	CO2	7 M
	b)	Sketch and explain the importance of persona creation in design thinking.	L3	CO2	7 M

OR					
4	a)	Compare statement format and sticky note format of empathy.	L2	CO2	7 M
	b)	List the advantages and disadvantages of customer journey map.	L2	CO2	7 M
UNIT-III					
5	a)	Explain what is meant by creativity. What are the principles of creativity?	L2	CO2	7 M
	b)	Explain different steps to enhance creativity.	L2	CO2	7 M
OR					
6	a)	What are the various ideation techniques? Write a short note on Bingo Selection.	L2	CO2	7 M
	b)	Describe the define phase and its importance in design thinking process.	L2	CO2	7 M
UNIT-IV					
7	a)	Explain different techniques for implementing paper prototyping.	L4	CO4	7 M
	b)	Do you agree with the statement ‘digital prototyping is better than paper prototyping’? Why?	L4	CO4	7 M
OR					
8	a)	Interpret the differences between usability testing and tree testing.	L3	CO4	7 M
	b)	Discuss the advantages and disadvantages of testing/user validation.	L2	CO4	7 M

UNIT-V

9	a)	Explain the term Innovation. What are the various types of innovations?	L2	CO3	7 M
	b)	Discuss whether product and process innovations are same.	L2	CO3	7 M

OR

10	a)	Exhibit the characteristics of Innovation.	L3	CO3	7 M
	b)	Use a case study in order to develop a design innovation.	L3	CO3	7 M