

Register No: _____

THE KAVERY ENGINEERING COLLEGE

(An Autonomous Institution)

UG/PG DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL-MAY 2026

Second Semester

ME- Product Design and Development

PPDT2425 – CONCEPTS OF ENGINEERING DESIGN

Regulations - 2024

Duration: 3 Hrs.

Maximum: 100 Marks

PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)

Q.No	Questions	BLT	CO	Marks
1.	What is empirical design?	L-1	1	2
2.	What are the requirements of good design?	L-1	1	2
3.	Name the 2 national and 2 international societies of engineers.	L-1	2	2
4.	State the principle of prototyping.	L-1	2	2
5.	Differentiate vertical thinking and lateral thinking.	L-2	3	2
6.	List various creativity methods.	L-1	3	2
7.	What is the importance of ergonomics in design?	L-1	4	2
8.	What are the types of mental blocks?	L-1	4	2
9.	What are steps involved while writing the technical report?	L-2	5	2
10.	Name any six visual aids used for oral presentation	L-1	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*16 = 80)

Q.No	Questions	BLT	CO	Marks
11.	a Explain in detail the three categories on consideration for good design	L-2	1	16
	Or			
	b Sketch a block diagram to explain the Morphology of design and elaborate the activities in each of its phase.	L-2	1	16
12.	a What are the public sources and the private -sources of information for engineering design?	L-3	2	8
	Explain any four types of customer requirements.	L-3	2	8
	Or			
	b i Sketch the basic module of design process and explain each operation of with examples.	L-3	2	8
	ii Differentiate the scientific method and Design method.	L-3	2	8

13.	a	i	Explain the positive steps that you can take to enhance your creative thinking	L-4	3	8
		ii	Explain the different types of mental blocks.	L-4	3	8
	Or					
	b		Write short notes on (i) Inventive problem solving (ii) Brainstorming (iii) Force fitting methods	L- 4	3	16
14.	a	i	Explain the four kinds of inter-actions between human and products	L-2	4	8
		ii	Explain the important strategies of design for environment.	L-2	4	8
	Or					
	b		Explain the guidelines, with neat sketch, -the-design for manufacturing.	L-2	4	16
15.	a	i	Explain the mechanics of writing technical report	L-2	5	8
		ii	Explain in detail the preparation of oral presentations and the types of visual aids.	L-2	5	8
	Or					
	b		Explain the factors to be consider in preparing a visual presentation using computer for a slide projector	L-2	5	16
