

## Model Question Paper with effect from 2024-25 (CBCS Scheme)

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### Sixth Semester B.E. Degree Examination Design Processes and Perspectives

TIME: 03 Hours

Max. Marks: 100

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

Q. No.	Questions	Marks	BL
<b>Module 1</b>			
<b>1</b>	a. Explain the importance of the engineering design process in product development and competitiveness.	10	CL2
	b. Discuss the achievements of performance requirements when considering a good design.	10	CL2
<b>OR</b>			
<b>2</b>	a. Discuss the differences between the scientific method and the design method and their influence on problem-solving in engineering. Discuss their strengths and limitations in practical applications.	10	CL2
	b. Discuss the stages of a product's life cycle and their importance.	10	CL2
<b>Module 2</b>			
<b>3</b>	a. Tabulate information literacy helps users effectively evaluate and use information found on the internet.	10	CL3
	b. Demonstrate the role of product architecture in embodiment design	10	CL3
<b>OR</b>			
<b>4</b>	a. Discuss the importance of finding reliable sources of design information	10	CL2
	b. Apply the process of developing product architecture and discuss the role of each step in clustering elements and identifying module interactions.	10	CL3
<b>Module 3</b>			
<b>5</b>	a. Apply the steps for enhancing your creative thinking and analyze their impact on your problem-solving abilities.	10	CL3
	b. Demonstrate the five basic patterns of decision-making and discuss their influence on the steps involved in making effective decisions.	10	CL3
<b>OR</b>			

6	a.	Determine the systematic methods in the design process.	10	CL3
	b.	Explain the influence of judgment and experience in design selection and discuss their contribution to the overall success and quality of design decisions.	10	CL2
<b>Module 4</b>				
7	a.	Demonstrate Theo Mandel's Golden Rules—reducing the user's memory load and ensuring interface consistency.	10	CL3
	b.	Apply user interface design pattern categories to create effective user experiences, supported by representative examples.	10	CL3
<b>OR</b>				
8	a.	Apply Tognozzi's design principles to WebApp interfaces and evaluate their impact on user control and ease of use.	10	CL3
	b.	Apply the process of defining interface objects and actions through user scenarios and use cases to interface design.	10	CL3
<b>Module 5</b>				
9	a.	Examine how designers can incorporate ethical considerations into promoting behavior changes that align with environmental sustainability, while respecting cultural diversity.	10	CL4
	b.	Analyze the key findings of the WCED report on sustainability and critically assess how these recommendations can be implemented into design solutions that align with ethical, cultural, and sustainability goals.	10	CL4
<b>OR</b>				
10	a.	Analyze the challenges that businesses face when integrating sustainability into design processes, and propose ethical solutions that address both the business objectives and sustainability goals.	10	CL4
	b.	Analyze how the principles of the environmental movement can be applied to design decisions, considering the social, cultural, and ethical implications.	10	CL4

**Cognitive Levels of Bloom's Taxonomy**

No.	CL1	CL2	CL3	CL4	CL5	CL6
<b>Level</b>	Remember	Understand	Apply	Analyze	Evaluate	Create