K. K. Wagh Institute of Engineering Education & Research, Nashik

(An Autonomous Institute From A.Y. 2022-23)

WINTER-2025	
Exam Seat No.:	
Academic Year:2025-2026	Semester:III
Class:PG-II	Program:MCA
Branch Code:M.C.A.	Pattern:2024
Name of Course:Industry Elective	Course Code:2409605B
Max. Marks:60	Duration:2.30 Hrs.

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains _02_page(s).
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.

		Marks	CO
Question No. 1			
1a)	Describe the five stages of Design Thinking and illustrate each stage with an appropriate example.	(6)	CO1
Question No. 2			
2a)	Explain what it means to “understand a problem in the Define phase of Design Thinking” and describe the key steps involved in reformulating the problem statement.	(6)	CO2
Question No. 3			
3a)	Use the Brainstorming technique to develop innovative ideas for creating an effective smart classroom solution	(8)	CO3
	OR		
3b)	Demonstrate how thinking in images, signs, personification, shapes, and proportions can be applied to effectively express a design idea.	(8)	CO3
3c)	Use sketching and storytelling techniques to demonstrate and communicate your concept for a sustainable product.	(8)	CO3
	OR		
3d)	Apply any two ideation tools to generate basic design directions for a new mobile learning app and explain the reasoning behind your ideas.	(8)	CO3
Question No. 4			
4a)	Examine the Lean Startup Method and break down how its key principles contribute to an effective prototype development process.	(8)	CO4
	OR		
4b)	Analyze how Quick and Dirty Prototyping supports rapid design validation by examining its key characteristics and their impact on the design process.	(8)	CO4
4c)	Examine how visualization and presentation techniques enhance prototype communication by analyzing their role in conveying design intent and user understanding.	(8)	CO4

OR

4d)	Analyze how storyboards and low-fidelity mock-ups help uncover user needs and potential usability issues early in the design process.	(8)	CO4

Question No. 5

5a)	Evaluate the usefulness of the Kano Model in prioritizing product features and justify whether it can reliably guide design decisions for user satisfaction	(8)	CO5

OR

5b)	Assess the combined role of usability testing and ergonomic evaluation in ensuring product effectiveness, and justify the weight each should carry in the final refinement process.	(8)	CO5
5c)	Evaluate the effectiveness of interviews versus surveys in capturing accurate user insights during the testing phase. Provide justification for which method is more suitable in different testing scenarios.	(8)	CO5

OR

5d)	Evaluate the role of user feedback and iterative testing in achieving continuous design improvement, and justify why these processes are essential for refining a product.	(8)	CO5

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