

Enrollment No.....

Duration: 3 Hrs.

Faculty of Engineering
Sem Examination Dec 2024

OE00083 Value Creation Through Design Thinking

Maximum Marks: 60

Note: All questions

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Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d. Assume suitable data if necessary. Notations and symbols have their usual meaning.

		Marks	BL	PO	CO	PSO
Q.1	i.	What is the main goal of design thinking?	1	1	1,3	1
		(a) To maximize profits				
		(b) To create innovative solutions for complex problems				
		(c) To reduce product development time				
		(d) To increase customer satisfaction from Un				
ii.	Which stage of design thinking involves understanding the needs and wants of the end-users?	1	1	1,3	1	
		(a) Ideation	(b) Prototyping			
		(c) Empathize	(d) Define			
iii.	In design thinking, generating a large number of ideas in a short amount of time is called as-	1	1	1,3	2	
		(a) Brainstorming	(b) Mind mapping			
		(c) SWOT analysis	(d) Six Thinking Hats			
iv.	The “Diverge” phase in design thinking is related to:	1	1	1,3	2	
		(a) Analyzing data				
		(b) Narrowing down ideas				
		(c) Generating multiple ideas				
		(d) Testing prototypes				
v.	In design thinking, the process of creating a tangible representation of ideas is known as:	1	1	1,3	3	
		(a) Ideation	(b) Prototyping			
		(c) Testing	(d) Refinement			

Marking Scheme
OE00083 (T) Value Creation Through Design Thinking (T)

OE00083 (T) Value Creation Through Design Thinking (T)		
Q.1	i) b) To create innovative solutions for complex problems ii) c) Empathize iii) a) Brainstorming iv) c) Generating multiple ideas v) b) Prototyping vi) b) It allows users to test the solution vii) b) Customer touch-points viii) c) The feasibility of the prototype ix) b. Agile Methodology x) b. Hostility on the part of the sales force.	1 1 1 1 1 1 1 1 1 1
Q.2	i. Briefly explain design thinking. Brief explanation.....2 marks ii. What are the challenges faced in innovation? (Any six challenges) Six challenges..... 3 marks (Each Challenge=0.5 Marks) iii. Describe the methods of identifying customer's needs. Description of method.....5 marks	2 3 5
OR	iv. Explain the stages of the design thinking process Explanation of 5 Stages.....5 marks (Each stage 1 marks)	5
Q.3	i. Briefly explain the brain-storming process. Brief explanation.....2 marks ii. Describe the Steps of the concept generation process for product design. A detailed description of all the steps.....8 marks	2 8
OR	iii. Describe the "QFD" method to transfer customer needs to product specifications with a suitable diagram.	8
Diagram.....2 marks Description of method.....6 marks		
Q.4	i. What is a prototype? Explain briefly. Brief explanation.....3 marks ii. What are the types of prototyping techniques? Describe any three prototyping techniques with suitable examples. Types of prototyping techniques.....1 marks Description of three techniques.....6 marks (Each technique.....2 marks)	3 7
OR	iii. Define "MVP"? Describe any three methods of MVP testing. Definition.....1 mark Description of three techniques.....6 marks (Each technique.....2 marks)	7
Q.5	i. What is a business model canvas? What are the advantages of business model canvas? A brief explanation of business model canvas.....2 marks Advantages.....2 marks ii. Describe the methods of business model testing. (Any Three) Three methods of business model testing.....6 marks (Each method.....2 marks)	4 6
OR	iii. Explain the product development framework with a suitable diagram. Explain the characteristics and advantages of this framework for service context. Characteristics.....3 marks Advantages.....2 marks Diagram..... 1 marks	6
Q.6	Write a short note on: (Attempt any two)	
	i. Principles of design for the environment Description of design for the environment.....5 marks ii. Spiral product development process Description of product development process.....5 marks iii. Agile product development process Description of Agile product development process....5 marks	5 5 5
