

**K. J. Somaiya Institute of Technology, Sion, Mumbai-22**  
**(Autonomous College Affiliated to University of Mumbai)**

May-June 2024  
 B.Tech Program: AI-DS      Scheme IIB  
 Regular Examination: LY Semester: VIII  
 Course Code: AIDLC 8022 and Course Name: Design Thinking and Innovation  
 Date of Exam: 16/05/24      Duration: 2.5 Hours      Max. Marks: 60

**Instructions:**

- (1) All questions are compulsory.
- (2) Draw neat diagrams wherever applicable.
- (3) Assume suitable data, if necessary.

		Max. Marks	CO	BT level
<b>Q 1</b>	<b>Solve any six questions out of eight:</b>	<b>12</b>		
i)	List out different ways in which Testing is carried out in Design Thinking process	2	6	U
ii)	What is the main goal of Design Thinking?	2	1	U
iii)	Give an example of Convergent Thinking	2	2	Ap
iv)	In short, describe the Round Robin method of Ideation	2	3	U
v)	What is the main purpose of "Define" stage in Design Thinking?	2	2	U
vi)	What is the need of brainstorming in Design Thinking?	2	2	U
vii)	Why is Design Thinking considered to be HCD (Human Centric Design)?	2	4	U
viii)	Should a Prototype be demonstrated and tested within a team? Justify	2	5	Ap
<b>Q.2</b>	<b>Solve any four questions out of six.</b>	<b>16</b>		
i)	Ratna Pickles, famous for its mango and lemon pickles, based in Gujarat, is now selling pickled avocado to its local customers in the state. Currently, the avocado is sourced from Mexico and needs constant refrigeration while transporting from one state to the other. This leads to customer complaints due to high pricing and lower shelf life. What could Ratna pickles do to reduce pricing? Apply design thinking process	4	6	An
ii)	Differentiate between traditional and design thinking approach for problem solving	4	1	U
iii)	A wicked problem is a social or cultural problem that is difficult or impossible to solve because of its complex and interconnected	4	2	Ap

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	nature. Wicked problems lack clarity in both their aims and solutions, and are subject to real-world constraints which hinder risk-free attempts to find a solution. List out at least 2 wicked problems.			
iv)	How prototypes help in Innovation?	4	5	U
v)	Apply the mind mapping technique on Good Health and well being	4	3	Ap
vi)	Explain the double diamond approach for Design Thinking	4	1	U
<b>Q.3</b>	<b>Solve any two questions out of three.</b>	<b>16</b>		
i)	What are the various stages involved in design thinking from finding the problem to finding the solution? Explain with an example?	8	4	U
ii)	Apply the HMW on Question an assumption: HMW entirely remove the wait time at the airport?	8	3	Ap
iii)	Share tips to improve testing process and user research	8	6	U
<b>Q.4</b>	<b>Solve any two questions out of three.</b>	<b>16</b>		
i)	What is the need of Prototyping?	8	5	U
ii)	Imagine a situation. There are too many holidays. It becomes difficult to give lectures to complete the syllabus. Form 20 HMW questions as to how to see that the probability of preparation of students for knowledge and examination does not reduce.	8	2	Ap
iii)	Explain the general concept of six hats. Give five examples where the six hat concept may be applied.	8	3	Ap

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