

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

A

May-June 2025		
B.Tech Program: AI-DS	Scheme III II	
Regular Examination: LY Semester: VIII		
Course Code: AIDLC 8022 and Course Name: Design Thinking and Innovation		
Date of Exam: 21/05/2025	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
Q 1	Solve any two questions out of three:	10		
i)	Compare Creativity and Innovation	5	1	U
ii)	Give an example of Divergent Thinking	5	2	U
iii)	Explain the use of Empathy Maps	5	3	U
Q.2	Solve any two questions out of four.	10		
i)	Illustrate the role of Design Thinker in Health Sector	5	6	An
ii)	Analyze the statement "Design Thinkers need to work in a team"	5	2	An
iii)	Design a strategy if you fail as a business in the prototype stage, what steps will you take to recover	5	5	An
Q.3	Solve any two questions out of three	20		
i)	For people with limb loss, prosthetic devices improve quality of life by providing movement and independence. Early prosthetics were uncomfortable to wear, but they may have helped people return to work and feel accepted in their daily lives. Prosthesis is a device designed to replace a missing part of the body or to make a part of the body work better and to help people regain mobility. Most prosthetic manufacturing companies use crude oils that are expensive and not environmentally friendly. Apply design thinking to find creative ways to use to make the prosthetics environment-friendly.	10	4	An
ii)	Analyze the given scenario and come up with a feasible solution using Design Thinking Background: Sunrise Multispeciality Hospital, a large urban healthcare center, was facing persistent complaints from patients regarding long wait times, lack of clear communication, and poor coordination between departments. While	10	1	An

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	the medical care was rated highly, patient satisfaction scores were declining steadily. Challenge: Improve the overall patient experience without increasing staffing or significantly expanding infrastructure.			
iii)	Pollution has increased. Employments have also increased. Number of vehicles has increased. We can't stop using vehicles. Form 20 HMW questions with regard to this problem.	10	2	An
Q.4	Solve any two questions out of three.	20		
i)	How are six thinking hats useful for defining the brief? Explain with an example	10	3	U
ii)	List different challenges in using AI for Design Thinking	10	6	U
iii)	Explain in brief about prototyping in Design Thinking	10	5	U
