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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA
(An Autonomous Institute Affiliated to AKTU, Lucknow)

MCA Integrated

SEM: II - THEORY EXAMINATION (2025 - 2026)

Subject: Design Thinking-I

Time: 3 Hours

Max. Marks: 100

General Instructions:

IMP: Verify that you have received the question paper with the correct course, code, branch etc.

1. This Question paper comprises of **three Sections -A, B, & C**. It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.
2. Maximum marks for each question are indicated on right -hand side of each question.
3. Illustrate your answers with neat sketches wherever necessary.
4. Assume suitable data if necessary.
5. Preferably, write the answers in sequential order.
6. No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.

SECTION-A

20

1. Attempt all parts:-

- (1.1) When multiple knowledge clusters converge above the plane is called _____. 1
 (CO1, K2)
- (a) Alignment
 - (b) Perspective
 - (c) Idea
 - (d) None of the above
- (1.2) _____ is the core tenet of the first phase of design thinking. (CO1, K2) 1
- (a) Observation
 - (b) Participation
 - (c) Dialogue
 - (d) None of the above
- (1.3) The feeling of acceptance of excellence in the other is called _____. (CO2, K2) 1
- (a) Guidance
 - (b) Reverence
 - (c) Respect
 - (d) Glory
- (1.4) In CATWOE Analysis C stands for _____. (CO2, K1) 1
- (a) Communication
 - (b) Collection
 - (c) Customer
 - (d) Curator

- (1.5) Journey map is best defined as. (CO3,K2) 1
- (a) It is a map to locate where the customer has travelled
 - (b) This only applies to the travel industry, since it involves maps
 - (c) It is a typical journey of a customer who goes through a certain experience
 - (d) The map that leads us to a profit making enterprise
- (1.6) The _____ method inspires participants to divide ideas. (CO3,K4) 1
- (a) Now Wow How Matrix
 - (b) Post-it Voting or Dot Voting
 - (c) Four Categories method
 - (d) Bingo Selection
- (1.7) does not comes under five pillars of critical thinking. (CO4,K2) 1
- (a) Logic
 - (b) Argumentation
 - (c) Rhetoric
 - (d) Inference
- (1.8) Avoiding bad news about a decision by ignoring data that might be negative. The Bias represented here is: (CO4,K3) 1
- (a) Ostrich Effect
 - (b) Optimism Bias
 - (c) Halo Effect
 - (d) Anchoring Bias
- (1.9) A valid argument is such that if its premises are true (CO5,K4) 1
- (a) Its conclusion must be true
 - (b) Its conclusion must be false
 - (c) Its conclusion is neither true nor false
 - (d) Its structure must be valid
- (1.10) Statements backed by good reasons are: (CO5,K4) 1
- (a) Worthy of strong acceptance
 - (b) To be believed with certainty
 - (c) Never false
 - (d) Beyond all possible doubt

2. Attempt all parts:-

- (2.1) Explain conflict in DCAFE forces. (CO1, K2) 2
- (2.2) Discuss relationship between body and self. (CO2, K2) 2
- (2.3) Explain the concept of Million-dollar idea exercise in ideation.(CO3,K3) 2
- (2.4) Describe Incongruence.(CO4,K4) 2
- (2.5) Differentiate between valid and invalid arguments by analyzing their logical structure. (CO5,K4) 2

SECTION-B

30

Answer any one of the following:-

(3.1)	Differentiate listening and hearing with examples. (CO1, K4)	6
(3.2)	Compare problem-solving approach and human-centered design. (CO1, K4)	6
Answer any one of the following:-		
(3.3)	Illustrate CATWOE analysis. (CO2, K3)	6
(3.4)	Define Maslow's Hierarchy of Needs theory and explain the five levels in detail (CO2, K3)	6
Answer any one of the following:-		
(3.5)	Explain Six Thinking Hats method in detail.(CO3,K3)	6
(3.6)	Analyze the process of identifying root causes using repeated questioning.(CO3,K3)	6
Answer any one of the following:-		
(3.7)	Distinguish various types of cognitive biases. (CO4,K3)	6
(3.8)	Explain the Halo Effect and Ingroup Preference Bias. Explain both with examples. (CO4,K3)	6
Answer any one of the following:-		
(3.9)	Differentiate between deductive argument and an inductive argument. (CO5,K4)	6
(3.10)	Describe the Slippery Slope Fallacy and Appeal to Nature Fallacy with examples.(CO5,K4)	6
SECTION-C		50
4. Answer any <u>one</u> of the following:-		
(4.1)	Identify a wicked problem in India and outline observations, problem statement, and solutions. (CO1, K3)	10
(4.2)	Compare design thinking with traditional problem-solving using examples. (CO1, K3)	10
5. Answer any <u>one</u> of the following:-		
(5.1)	Describe the human being as co-existence of self and body. (CO2, K3)	10
(5.2)	Explain CATWOE analysis technique with its six components and application in business problem-solving. (CO2, K3)	10
6. Answer any <u>one</u> of the following:-		
(6.1)	Discuss the Double Diamond approach in detail.(CO3,K3)	10
(6.2)	Describe the 5 Why's technique with examples.(CO3,K3)	10
7. Answer any <u>one</u> of the following:-		
(7.1)	Describe the methods and tips for overcoming cognitive bias. (CO4,K4)	10
(7.2)	Compare and contrast between argumentation and rhetoric. (CO4,K4)	10
8. Answer any <u>one</u> of the following:-		
(8.1)	Apply the concept of argument structure to distinguish between inductive and deductive reasoning. (CO5,K4)	10
(8.2)	Describe the logic in critical thinking and also differentiate between premise and conclusion. (CO5,K4)	10