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

BCA

SEM: I - 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-a. Design mind is having a _____ mindset. (CO1,K1) 1
- (a) 3-Dimensional
- (b) 1-Dimensional
- (c) 2-Dimensional
- (d) None of the above
- 1-b. The Empathize phase deals with: (CO1,K1) 1
- (a) Fine tune products or services till they are no more bugs in them
- (b) Get in the shoes of the customers and understand the situation from their perspective
- (c) Interviewing people to get their opinions, feedback and shortcomings of your current product/service
- (d) Prototype a concept and check if it stands the test of the market
- 1-c. The needs of _____ can not be fulfilled by material. (CO2,K3) 1
- (a) Consciousness
- (b) Material
- (c) Non-material
- (d) None of the above
- 1-d. In CATWOE Analysis W stands for _____. (CO2,K3) 1
- (a) Worldview
- (b) Wide
- (c) Work
- (d) Wonderful

- 1-e. During a _____ session, you leverage the synergy of the group to reach new ideas by building on others' ideas. (CO3,K4) 1
- (a) Braindump
 - (b) Brainwrite
 - (c) Brainstorm
 - (d) Brainwalk
- 1-f. The _____ entails dividing ideas according to their relative abstractness, ranging from the most rational choice to the 'long shot'. (CO3,K4) 1
- (a) Now Wow How Matrix
 - (b) Post-it Voting or Dot Voting
 - (c) Four Categories method
 - (d) Bingo Selection
- 1-g. Which does not comes under five pillars of critical thinking. (CO4,K4) 1
- (a) logic
 - (b) Argumentation
 - (c) Rhetoric
 - (d) Inference
- 1-h. Over-relying on the first piece of information obtained and using it as the baseline for comparison. Which bias does this refers? (CO4,K4) 1
- (a) Availability Bias
 - (b) Bandwagon Effect
 - (c) Anchoring Bias
 - (d) Choice-supportive Bias
- 1-i. I did not need to study for my math exam because I am doing really well in my psychology class. Which fallacy example does this refer? (CO5,K4) 1
- (a) False analogy
 - (b) False dilemma
 - (c) Slippery slope
 - (d) Non sequitur
- 1-j. It is impossible for a valid argument to have true premises and: (CO5,K4) 1
- (a) A true conclusion
 - (b) A negated conclusion
 - (c) A conditional
 - (d) A false conclusion
2. Attempt all parts:-
- 2.a. Explain fear element of DCAFE forces. (CO1,K1) 2
- 2.b. Elaborate the role of education in human life. (CO2,K3) 2
- 2.c. Describe How Might We (HMW) questions. (CO3,K4) 2
- 2.d. List the five component areas for successful critical thinking. (CO4,K4) 2
- 2.e. How does logic differ from critical thinking? (CO5,K4) 2

SECTION-B

30

3. Attempt all parts:-	
3.a. Answer any <u>one</u> of the following:-	
3.a.(i) Give examples of 3 bad design around you. (CO1,K1)	6
3.a.(ii) Define 3 laws of Design Thinking? Explain with examples. (CO1,K1)	6
3.b. Answer any one of the following:-	
3.b.(i) Explain the term stakeholder with their role in organization.(CO2,K3)	6
3.b.(ii) Elaborate Criticisms of Maslow's Theory. (CO2,K3)	6
3.c. Answer any one of the following:-	
3.c.(i) Describe Bingo Selection and Idea Affinity Maps.(CO3,K4)	6
3.c.(ii) Elaborate the define stage of design thinking. Explain 5 Why's tool with example. (CO3,K4)	6
3.d. Answer any one of the following:-	
3.d.(i) Elaborate Recency Effect and Zero-risk Bias with example. (CO4,K4)	6
3.d.(ii) Illustrate rhetoric with example. (CO4,K4)	6
3.e. Answer any one of the following:-	
3.e.(i) Analyze the differences between valid and invalid arguments and strong and weak arguments. (CO5,K4)	6
3.e.(ii) Determine Straw Man fallacy and Bandwagon fallacy. (CO5,K4)	6
<u>SECTION-C</u>	50
4. Answer any <u>one</u> of the following:-	
4-a. Give any 2 instances of importance of listening over hearing. Illustrate with real time examples. (CO1,K1)	10
4-b. Describe 13 musical notes of Design mindset. How do they impact our thinking? (CO1,K1)	10
5. Answer any <u>one</u> of the following:-	
5-a. Describe the 9 Feelings in relationship.(CO2,K3)	10
5-b. Examine the process of classifying stakeholders in a user-centered design context. (CO2,K3)	10
6. Answer any <u>one</u> of the following:-	
6-a. Apply the HMW on Question an assumption: HMW entirely remove the wait time at the airport? (CO3,K4)	10
6-b. Describe Edward de Bono's six thinking hats and explain their role in problem solving. (CO3,K4)	10
7. Answer any <u>one</u> of the following:-	
7-a. Discuss in detail the pillars of critical thinking. (CO4,K4)	10
7-b. How does strong critical thinkers demonstrate their characteristics? (CO4,K4)	10
8. Answer any <u>one</u> of the following:-	
8-a. Write short note on following: (1) Premise and conclusion (2) Truth and logic condition (CO5,K4)	10
8-b. Analyze how logical fallacies and obstacles to critical thinking affect sound reasoning and decision-making. (CO5,K4)	10