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

MCA

SEM: II - THEORY EXAMINATION (2023 - 2024)

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. What is the main goal of design thinking? (CO1) 1
- (a) To maximize profits
 - (b) To create innovative solutions for complex problems
 - (c) To reduce product development time
 - (d) To increase customer satisfaction.
- 1-b. Design Thinking is an iterative process that consists of how many stages? (CO1) 1
- (a) 2
 - (b) 4
 - (c) 5
 - (d) 7
- 1-c. During which step do you build a vast depository of suggestions to work with? (CO2) 1
- (a) Test
 - (b) Empathise
 - (c) Ideate
 - (d) Prototype
- 1-d. It is important to have a good _____ to be successful in your career. (CO2) 1
- (a) Appearance
 - (b) Attendance
 - (c) Attitude
 - (d) Respect
- 1-e. Empathy map can be helpful for (CO3) 1
- (a) Diving into the customer segments of a business model canvas
 - (b) Elaborating on user personas

- (c) Capturing behaviors when pair interviewing a customer
 (d) All of the above
- 1-f. What is the key ingredient in a successful transition from the Define stage to the Ideate stage in design thinking? (CO3) 1
 (a) The testing questions
 (b) The problem statement
 (c) The brainstorming session
 (d) The developed prototype
- 1-g. When you encounter information, what should be kept in mind? (CO4) 1
 (a) Is it current?
 (b) Is it complete?
 (c) Is it accurate?
 (d) All of the above
- 1-h. Select the element which is not part of the critical thinking standard. (CO4) 1
 (a) Clarity
 (b) Relevance
 (c) Relativistic thinking
 (d) Completeness
- 1-i. Fallacies can be psychologically persuasive even though they are. (CO5) 1
 (a) Psychologically impotent
 (b) Logically flawed
 (c) Deductively valid
 (d) Inductively valid
- 1-j. Arguing that a lack of evidence proves something is the fallacy of design thinking. (CO5) 1
 (a) Appeal to ignorance
 (b) Double negative
 (c) Equivocation
 (d) Burden of proof

2. Attempt all parts:-

- 2.a. What are five forces of growth? (CO1) 2
- 2.b. Describe the human being as co-existence of self and body depicting need, activity and response. (CO2) 2
- 2.c. Describe the 5 Whys in define stage of design thinking process. (CO3) 2
- 2.d. Write the characteristics of critical thinkers. (CO4) 2
- 2.e. What do you understand by Argument? Explain valid and invalid argument. (CO5) 2

SECTION-B

30

3. Answer any five of the following:-

- 3-a. Difference between Lean Thinking and Critical Thinking. (CO1) 6
- 3-b. What are 3 laws of Design Thinking? Explain with examples. (CO1) 6
- 3-c. Describe the theory of Moccasin walk. (CO2) 6
- 3-d. Explain the term stakeholder with their role in organization. (CO2) 6

3.e.	Create a journey map for a rural student taken admission into your college. (CO3)	6
3.f.	Explain five pillars of critical thinking with example. (CO4)	6
3.g.	Arguing that a claim must be true merely because a substantial number of people believe it is called the fallacy. Explain. (CO5)	6

SECTION-C 50

4.	Answer any <u>one</u> of the following:-	
4-a.	What is the difference between Design Thinking and Design? (CO1)	10
4-b.	Design Thinking is a Linear Process. True or False? Explain with example. (CO1)	10
5.	Answer any <u>one</u> of the following:-	
5-a.	Discuss the needs of self and body. (CO2)	10
5-b.	In CATWOE Analysis W stands for Worldview? Explain the role of worldview with example. (CO2)	10
6.	Answer any <u>one</u> of the following:-	
6-a.	What do you understand by Sketching? How it is different from Prototyping? (CO3)	10
6-b.	How can 6 Thinking Hats helps in Problem solving? (CO3)	10
7.	Answer any <u>one</u> of the following:-	
7-a.	Discuss the role of probability and judgment in critical thinking with appropriate example. (CO4)	10
7-b.	Why rhetoric is important in Critical Thinking? (CO4)	10
8.	Answer any <u>one</u> of the following:-	
8-a.	What do you understand by the term logical fallacy and describe how to avoid logical fallacies using deductive reasoning.(CO5)	10
8-b.	Differentiate between deductive argument and an inductive argument? (CO5)	10

REG. MAY 2024