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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

MCA

SEM: II - CARRY OVER THEORY EXAMINATION - SEPTEMBER 2022

Subject: Design Thinking

Time: 3 Hours

Max. Marks: 100

General Instructions:

1. The question paper comprises three sections, A, B, and C. You are expected to answer them as directed.
2. Section A - Question No- 1 is 1 marker & Question No- 2 carries 2 marks each.
3. Section B - Question No-3 is based on external choice carrying 6 marks each.
4. Section C - Questions No. 4-8 are within unit choice questions carrying 10 marks each.
5. No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.

SECTION A

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1. Attempt all parts:-

- 1-a. Design Thinking is: (CO1) 1
- (a) Thinking about design
 - (b) Designing ways in which people think
 - (c) Asking users to solve problems
 - (d) Defining, framing and solving problems from users' perspectives
- 1-b. What are the steps of Design Thinking Process? (CO 1) 1
- (a) Understand > Draw > Ideate > Create > Test
 - (b) Empathise > Define > Ideate > Prototype > Test
 - (c) Empathise > Design > Implement > Produce > Test
 - (d) Understand > Define > Ideate > Produce > Try
- 1-c. The third step in the design thinking process is: (CO2) 1
- (a) Define
 - (b) Ideate
 - (c) Empathise
 - (d) Test

- 1-d. Areas of interaction between a customer and company are known as _____. (CO 2) 1
- (a) Touch points
 - (b) Pain points
 - (c) Shopping points
 - (d) Respect
- 1-e. Which of the following are advantages of brainstorming when compared to nominal group technique? (CO3) 1
- (a) brainstorming is more fun
 - (b) brainstorming can create a positive organizational climate
 - (c) brainstorming can encourage talented and highly skilled employees to remain in an organization
 - (d) all of the above
- 1-f. Groupthink can be combatted in which of the following ways? (CO3) 1
- (a) the team leader could withhold his or her viewpoint during team discussion
 - (b) the devil's advocate role could be assigned to a specific team member
 - (c) team members could engage in cohesiveness-building training
 - (d) both a and b
- 1-g. Critical thinking concerns (CO4) 1
- (a) Determining the cause of our beliefs
 - (b) Pinpointing the psychological basis of our beliefs
 - (c) Determining the quality of our beliefs
 - (d) Assessing the practical impact of our beliefs
- 1-h. Statements backed by good reasons are (CO4) 1
- (a) Worthy of strong acceptance
 - (b) To be believed with certainty
 - (c) Never false
 - (d) Beyond all possible doubt
- 1-i. Which of these is NOT a barrier to critical thinking? (CO 5) 1
- (a) Poor reading skills
 - (b) Poor listening skills
 - (c) Courage
 - (d) Bias

- 1-j. An argument intended to provide logically conclusive support for its conclusion is (CO 5) 1
- (a) Inductive
 - (b) Valid
 - (c) Deductive
 - (d) Sound

2. Attempt all parts:-

- 2.a. Give 2 examples of Limiting belief and how it can become a constraint. (CO 1) 2
- 2.b. Explain the culture in organization and its various types. (CO2) 2
- 2.c. What do you understand with Ice Cream stick challenge? (CO 3) 2
- 2.d. Write short note on following: (1) Logical fallacy (2) Proposition (CO4) 2
- 2.e. Define premises, with example. (CO 5) 2

SECTION B 30

3. Answer any five of the following:-

- 3-a. What are the barriers to Listening? (CO 1) 6
- 3-b. Explain DCAFE forces. (CO1) 6
- 3-c. Differentiate between intention and competence. (CO 2) 6
- 3-d. Explain the Self Actualization needs. (CO2) 6
- 3.e. What makes Design thinking different from project-based learning? (CO3) 6
- 3.f. Is background knowledge important for critical thinking? Justify it. (CO4) 6
- 3.g. List the five step process of critical thinking. (CO5) 6

SECTION C 50

4. Answer any one of the following:-

- 4-a. What are 3 key elements of Design Thinking? Explain the types of observers. (CO 1) 10
- 4-b. What do you understand with Arcturus IV case study by Professor John Arnold? What are your imaginations about the same? (CO 1) 10

5. Answer any one of the following:-

- 5-a. Elaborate the role of education in human life. (CO2) 10
- 5-b. Discuss the needs of self and body. (CO2) 10

6. Answer any one of the following:-

- 6-a. Write Short note on 6 thinking hats? A coffee store is experiencing decline in orders due to delay in ordering process. Apply 6 thinking hats to understand the problem. (CO3) 10

- 6-b. Which tools helps in Ideation phase of design thinking? (CO3) 10
7. Answer any one of the following:-
- 7-a. What is critical thinking? Explain 5 pillars of critical thinking. (CO 4) 10
- 7-b. Elaborate cognitive bias. What are the causes related to it? (CO4) 10
8. Answer any one of the following:-
- 8-a. What do you understand with Logical Fallacies? Explain any 5 Logical fallacies with example. (CO5) 10
- 8-b. Write short note on: (CO5) 10
- (i) Claim and argument
 - (ii) Deductive, Inductive and Abductive Reasoning