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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

B.Tech

SEM: III - THEORY EXAMINATION (2024 - 2025)

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. Which is a first step of Design thinking Process in IDEO approach (CO 1,K1)

1

(a) Discovery

(b) Interpretation

(c) Ideation

(d) Feel

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. In CATWOE Analysis C stands for.....(CO2,K1)

1

(a) Communication

(b) Collection

(c) Customer

(d) Curator

1-d. Falling in one to one discussion is...(CO2,K1)

1

(a) Ideation

(b) Immersion

- (c) Observation
- (d) Dialogue
- 1-e. User Journey Map helps you to (CO3,K1) 1
 - (a) Understand the touch points and pain points of the user
 - (b) Iterate, iterate, iterate
 - (c) Identify the users' credibility, expertise and skills
 - (d) All of the above.
- 1-f. Aesthetic aspects are part of what users (CO3,K1) 1
 - (a) Think and feel
 - (b) See
 - (c) Hear
 - (d) Say and do
- 1-g. A word that is not a premise indicator word is.(CO4,K1) 1
 - (a) Therefore
 - (b) As
 - (c) Since
 - (d) For
- 1-h. Arguing that a claim must be true merely because a substantial number of people believe it is called the fallacy of_____ (CO4,K1) 1
 - (a) Tu quoque
 - (b) Composition
 - (c) Appeal to the masses
 - (d) Appeal to reason
- 1-i. Considered moral judgments are (CO5,K1) 1
 - (a) Those moral judgments that are endorsed by conscience
 - (b) Those moral judgments that the majority of people accept
 - (c) Those moral judgments that we accept after we reason about them carefully
 - (d) Those moral judgments that we accept because of our upbringing
- 1-j. The fallacy of ignoring the bad information about something is (CO5,K1) 1
 - (a) The Bandwagon Fallacy
 - (b) The Ad Hominem Fallacy
 - (c) The ostrich fallacy
 - (d) The Slippery slope fallacy

2. Attempt all parts:-

- 2.a. Explain perspective element of SEPIA. (CO1,K3) 2
- 2.b. Discuss the justice view of ethical behaviour.(CO2, K3) 2
- 2.c. Discuss which tools helps in Ideation phase of design thinking. (CO3,K2) 2
- 2.d. Examine the five component areas for successful critical thinking. (CO4,K3) 2

2.e.	Solve the any situational problem in critical thinking which talk about how you think effects. (CO5,K3)	2
<u>SECTION-B</u>		30
3.	Answer any <u>five</u> of the following:-	
3-a.	Explain each one of the three Capacity Levers that drive the design mind (CO1,K3)	6
3-b.	Discuss the framework for Creativity and Innovation. (CO1,K2)	6
3-c.	Analyze how effective brainstorming session can be conducted explain with its requirements. (CO2, K4)	6
3-d.	Explain the brainstorming with its benefits and limitations to solve the problems. How RAT helps in ideation. (CO2,K3)	6
3.e.	Analyze the Root Cause Analysis for real world example. How 5 Why technique help in understanding the root cause of a problem. (CO3,K4)	6
3.f.	Evaluate where in society the critical thinking valued and used with example. (CO4,K4)	6
3.g.	Evaluate the performance of double-blind mean. Why are double-blind methods used in scientific testing.(CO5,K4)	6
<u>SECTION-C</u>		50
4.	Answer any <u>one</u> of the following:-	
4-a.	Evaluate any 2 real time examples of power of observation and how it can help understanding a problem. (CO1,K4)	10
4-b.	Evaluate any 2 instances of importance of listening over hearing. Illustrate with real time examples (CO1,K4)	10
5.	Answer any <u>one</u> of the following:-	
5-a.	Discuss the ways to overcome the negative sentiments.(CO2,K2)	10
5-b.	Describe empathy map and discuss its role in design thinking.(CO2,K2)	10
6.	Answer any <u>one</u> of the following:-	
6-a.	Explain the concept of 5 Why's, and POV in design thinking with suitable example. (CO3,K3)	10
6-b.	Solve any real time example with six hat technique. (CO3,K3)	10
7.	Answer any <u>one</u> of the following:-	
7-a.	Is background knowledge important for critical thinking. Justify it.(CO4,K5)	10
7-b.	Describe structure of an argument. Is premises and conclusion both are important in argument. Justify this.(CO4,K5)	10
8.	Answer any <u>one</u> of the following:-	
8-a.	Evaluate the role of critical thing in scientific reasoning. Also enlist five components of scientific reasoning. (CO5,K4)	10
8-b.	Enlist the components of argument. Analyze argument diagram in any suitable example. (CO5,K4)	10