Printed Page:- 03 **Subject Code:- BMICA0204**

Roll. No:

NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

MCA (Integrated)

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. The final step in the Design Process is to ____. (CO1) 1

(a) Test

(b) Define

(c) Ideate

(d) Empathize

1-c. Which is NOT an aspect of the Empathy step? (CO2) 1

(a) Evaluate: prioritise evidence that supports a chosen problem

(b) Engage: Interact and interview users in real-life context

(c) Observe: View users in the context of their lives

(d) Immerse: experience what the user experiences

1-d. It is always important to……. yourself, others and the place where you work. (CO2) 1

(a) Appearance

(b) Cooperate

(c) Communication

(d) Respect

1-e. Which of the following is one of the most widely used methods in cross-cultural research? (CO3) 1

(a) Experiments

(b) Surveys

(c) Observation
(d) Case studies

1-f. Which is 13 musical notes (CO3) 1

(a) Learn forces of Growth
(b) Learn Frictional forces
(c) All of the above
(d) Learn Capacity Levers

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. Which of the following does not correspond to characteristics of research? (CO4) 1

(a) Research is not passive
(b) Research is systematic
(c) Research is not a problem-oriented
(d) Research is not a process

1-i. A deductively valid argument cannot have (CO5) 1

(a) True premises and a false conclusion
(b) False premises and a true conclusion
(c) True premises and a true conclusion
(d) False premises and a false conclusion

1-j. Fallacies can be psychologically persuasive even though they are (CO5) 1

(a) Psychologically impotent
(b) Logically flawed
(c) Deductively valid
(d) Inductively valid

2. Attempt all parts:-

2.a. Give examples of 2 good design around you. Explain what made them a good design (CO1) 2

2.b. How creativity can be fostered by culture in an organization? (CO2) 2

2.c. What are five frictional forces that drive design? (CO3) 2

2.d. Explain arguments with the help of suitable example. (CO4) 2

2.e. What is the genetic fallacy (CO5) 2

SECTION-B 30

3. Answer any <u>five</u> of the following:-

3-a. Who benefits from the Design Thinking and how? What kinds of problems can it be applied towards? (CO1) 6

3-b. How design thinking is different from traditional thinking? (CO1) 6

3-c. Define different perspectives of ethical behaviour. (CO2) 6

3-d. Explain the term stakeholder with their role in organization. (CO2) 6

3.e. What is 5 Why tool? How it helps in root cause finding.(CO3) 6

3.f.	What do you understand by cognitive biases explain with example. (CO4)	6
3.g.	Describe Zero-risk Bias. (CO5)	6
SECTION-C		50
4. Answer any <u>one</u> of the following:-		
4-a.	What are key elements of design thinking? Explain LDO. (CO1)	10
4-b.	What do you understand with root cause analysis? Which tools helps in root cause analysis? (CO1)	10
5. Answer any <u>one</u> of the following:-		
5-a.	What do you understand with Sketching? How it is different from Prototyping? (CO2)	10
5-b.	Describe the human being as co-existence of self and body depicting need, activitiy and response. (CO2)	10
6. Answer any <u>one</u> of the following:-		
6-a.	Describe the brainstorming with its benefits. (CO3)	10
6-b.	In CATWOE Analysis C stands for customer? What is it explain. (CO3)	10
7. Answer any <u>one</u> of the following:-		
7-a.	Define the role of probability and judgment in critical thinking with appropriate example.(CO4)	10
7-b.	Contrast between argumentation versus rhetoric. (CO4)	10
8. Answer any <u>one</u> of the following:-		
8-a.	What do you mean by Bandwagon Effect and Choice-supportive Bias? (CO5)	10
8-b.	What do do understand by biases? Explain anchoring bias and availability bias (CO5)	10