

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

B.Tech.

SEM: III - THEORY EXAMINATION (2021 - 2022)

Subject: Design Thinking-I

Time: 03:00 Hours

Max. Marks: 100

General Instructions:

1. All questions are compulsory. It comprises of three Sections A, B and C.
 - Section A - Question No- 1 is objective type question carrying 1 mark each & Question No- 2 is very short type questions carrying 2 marks each.
 - Section B - Question No- 3 is Long answer type - I questions carrying 6 marks each.
 - Section C - Question No- 4 to 8 are Long answer type - II questions carrying 10 marks each.
 - 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 culture encompasses- (CO1) | 1 |
| | <ol style="list-style-type: none"> 1. Design Mind 2. Design Framework 3. Design Space 4. All of the above | |
| 1.b | As per the definition of Design Thinking by IDEO, which one is the main component- (CO1) | 1 |
| | <ol style="list-style-type: none"> 1. Desirability 2. Feasibility 3. Viability 4. All of the above | |
| 1.c | CATWOE analysis was generated by (CO2) | 1 |
| | <ol style="list-style-type: none"> 1. Michael Porter 2. Perter F Druker 3. Will Durand 4. David Smyth | |
| 1.d | Which one is a Secondary Source of information? (CO2) | 1 |
| | <ol style="list-style-type: none"> 1. Focus Group 2. Survey 3. Magazines 4. Interview | |

- 1.e The "How might we" statements are mainly to- (CO3) 1
1. Set a design thinking project goal
 2. To challenge status quo of the customer situation
 3. To set a marketing campaign that will attract the customer's attention
 4. Inspire the design thinking team to think beyond the ordinary solutions
- 1.f Which of the following is an effective technique for dealing with troublesome group members? (CO3) 1
1. Embrace their disruptive behavior
 2. Use the same behaviors as the disruptive member to demonstrate why their behaviors are flawed
 3. Create an environment where the disruptive member does not feel welcome
 4. Confront the person directly
- 1.g A word that is not a premise indicator word is.(CO4) 1
1. Therefore
 2. As
 3. Since
 4. For
- 1.h The statement that premises are intended to support is called...(CO4) 1
1. A related premise
 2. An argument
 3. A description
 4. The conclusion
- 1-i. A deductively valid argument with true premises is said to be (CO5) 1
1. Strong
 2. Weak
 3. Sound
 4. Probable
- 1-j. A deductively valid argument cannot have (CO5) 1
1. True premises and a false conclusion
 2. False premises and a true conclusion
 3. True premises and a true conclusion
 4. False premises and a false conclusion
2. Attempt all parts:-
- 2-a. What are the barriers to Listening? (CO1) 2
- 2-b. Differentiate between intention and competence.(CO2) 2
- 2-c. How "Random Association Technique" helps in Brainstorming session? (CO3) 2
- 2-d. What do you mean by Bandwagon Effect and Choice-supportive Bias?(CO4) 2
- 2-e. What is a premise and conclusion? (CO5) 2

3. Answer any five of the following:-
- 3-a. Explain each one of the three Capacity Levers that drive the design mind (CO1) 6
- 3-b. What is an Observation activity? Explain the types of Observer (CO1) 6
- 3-c. What do you mean by universal human goal? How this can be achieved?(CO2) 6
- 3-d. Describe the Do's and Don't's of brainstorming.(CO2) 6
- 3-e. What do you understand with root cause analysis? Which tools helps in root cause analysis? (CO3) 6
- 3-f. Explain Cognitive bias. (CO4) 6
- 3-g. Differentiate between deductive argument and an inductive argument? (CO5) 6

SECTION C

50

4. Answer any one of the following:-
- 4-a. What are desirability, feasibility and viability? Why do we need to strike a balance between them? (CO1) 10
- 4-b. What are 13 musical notes of Design mindset. How do they impact our thinking (CO1) 10
5. Answer any one of the following:-
- 5-a. Describe the 9 feelings in relationship.(CO2) 10
- 5-b. Describe the human being as co-existence of self and body depicting need, activity and response.(CO2) 10
6. Answer any one of the following:-
- 6-a. Attempt a journey map of a first-year student who comes from a rural background and enters your classroom-
(i) Draw the persona, (ii) Identify various touch points, (iii) Capture journey map elements at each touch point and rate them by plotting a graph (CO3) 10
- 6-b. How to make a classroom experience interesting for students (i) Do the Brainstorming (ii) Use Random Association Technique (iii) Construct a Mindmap (iv) Apply 10gm, 100gm, 1000gm (v) Identify QBL (CO3) 10
7. Answer any one of the following:-
- 7-a. What is Logic? Why logic is important in Critical Thinking? (CO4) 10
- 7-b. Describe structure of an argument? Is premises and conclusion both are important in argument? (CO4) 10
8. Answer any one of the following:-
- 8-a. Write short note on following: (i) Logical fallacy (ii) Proposition (CO5) 10
- 8-b. Write short note on: (i) Claim and Proposition (ii) Argument and statement (CO5) 10