

Printed Page:-

Subject Code:- BMCA0204

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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

MCA

SEM: II - THEORY EXAMINATION (20... - 20...)

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 one is not three laws of Design Thinking"? (CO1, K2) 1
- (a) Less is more
 - (b) Last 2% is 200%
 - (c) Observation
 - (d) Theory of Prioritization
- 1-b. Collecting _____ is an important portion of testing a prototype in the test stage of design thinking. (CO1, K3) 1
- (a) Pictures
 - (b) Money
 - (c) Feedback
 - (d) Emails
- 1-c. It is important to have a good _____ to be successful in your career. (CO2, K3) 1
- (a) Appearance
 - (b) Attendance
 - (c) Attitude
 - (d) Respect
- 1-d. You are a person with a high level of.....if you stand by your values even if others put pressure on you to do something that is wrong or if they make fun of 1

you. (CO2, K2)

- (a) Communication
- (b) Cooperation
- (c) Honesty
- (d) Integrity

- 1-e. An effective question to use in the transition stage between Define and Ideate in design thinking? (CO3, K4) 1
- (a) How many prototypes should we develop?
 - (b) How might we increase battery life?
 - (c) What is our customer's problem?
 - (d) How are we going to solve this?
- 1-f. Which of the following are benefits of brainstorming when compared to nominal group technique? (CO3, K3) 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-g. Ideal definition of critical thinking? (CO4, K3) 1
- (a) Higher level thinking that aims to solve a problem.
 - (b) Finding faults and weaknesses in other people's arguments.
 - (c) Logically analyzing arguments in a critical way
 - (d) Disciplined thinking and judgment
- 1-h. A belief is worth accepting if (CO4, K4) 1
- (a) We have good reasons to accept it
 - (b) It is consistent with our needs
 - (c) It has not been proven wrong
 - (d) It is accepted by our peers
- 1-i. An argument intended to provide logically conclusive support for its conclusion is (CO5, K2) 1
- (a) Inductive
 - (b) Valid
 - (c) Deductive
 - (d) Sound
- 1-j. Fallacies can be psychologically persuasive even though they are (CO5, K4) 1
- (a) Psychologically inefficient
 - (b) Logically flawed
 - (c) Deductively valid

(d) Inductively valid

2. Attempt all parts:-

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|------|--|---|
| 2.a. | How can design help solve the traffic problem in Bangaluru? Come up with a strategy. (CO1, K4) | 2 |
| 2.b. | Describe the process from basic need to actualization needs with the help of a neat and clean diagram. (CO2, K3) | 2 |
| 2.c. | Discuss 'How might we' approach. How HMW approach entirely remove the wait time at the airport? (CO3, K2) | 2 |
| 2.d. | Differentiate between inductive argument and deductive argument. (CO4, K4) | 2 |
| 2.e. | Explain logical reasoning? Determine it with a suitable example. (CO5, K3) | 2 |

SECTION-B

30

3. Answer any five of the following:-

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|------|--|---|
| 3-a. | Explain fear element of DCAFE forces. (CO1, K2) | 6 |
| 3-b. | Discuss the 3 core design thinking principles? (CO1, K3) | 6 |
| 3-c. | How empathy can be playing an important role in understanding the problem? (CO2, K2) | 6 |
| 3-d. | Explain the concept of CATWOE Analysis with appropriate example. (CO2, K3) | 6 |
| 3.e. | Discuss Double Diamond Approach with diagram (CO3, K2) | 6 |
| 3.f. | Is deductive reasoning always true? Briefly explain. (CO4, K4) | 6 |
| 3.g. | Your dad read that using cell phones can cause brain cancer. He refuses to buy a cell phone because he is afraid of contracting brain cancer from using one. No matter how much you try to persuade him with other information, he will not listen. This is an example of which fallacy explain? (CO5, K3) | 6 |

SECTION-C

50

4. Answer any one of the following:-

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|------|---|----|
| 4-a. | Difference between Dialogue and debate. (CO1, K2) | 10 |
| 4-b. | Describe 13 musical notes of Design mindset. How do they impact our thinking? (CO1, K3) | 10 |

5. Answer any one of the following:-

- | | | |
|------|--|----|
| 5-a. | Discuss the ways to overcome the negative sentiments. (CO2, K3) | 10 |
| 5-b. | In CATWOE Analysis W stands for Worldview? Explain it with example (CO2, K3) | 10 |

6. Answer any one of the following:-

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|------|--|----|
| 6-a. | How "Random Association Technique" helps in Brainstorming session? (CO3, K3) | 10 |
| 6-b. | Illustrate 5 Whys tool method? How it helps in root cause finding. (CO3, K3) | 10 |

7. Answer any one of the following:-

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|------|--|----|
| 7-a. | Explain the Halo Effect and Ingroup Preference Bias. Explain both with examples. | 10 |
|------|--|----|

(CO4, K2)

7-b. Elaborate Bandwagon Effect and Choice-supportive Bias with example. (CO4, K2) 10

8. Answer any one of the following:-

8-a. Write short note on following: (1) Premise and conclusion (2) Truth and logic condition (CO5, K4) 10

8-b. Differentiate between the following: (1) Valid and invalid Argument (2) Strong and Weak Argument (CO5, K4) 10

REG:JAN_JUN-2025