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Subject Code:- BSPGDT104

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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, NIET BUSINESS INSTITUTE

GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

PGDM

TRIMESTER: I - THEORY EXAMINATION (November-2024 ....)

Subject: Design Thinking

Time: 2.5 Hours

Max. Marks: 60

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**

15

1. Attempt all parts:-

- 1-a. Identify a common tool used in design thinking to develop and test prototypes.(CO1,K2) 1
- (a) SWOT Analysis
- (b) Brainstorming
- (c) Sketching
- (d) PEST Analysis
- 1-b. Select the techniques involved in using a systematic approach to identify and solve problems.(CO2,K1) 1
- (a) Creative Thinking
- (b) Analytical Thinking
- (c) Lateral Thinking
- (d) Brainstorming
- 1-c. In banking, explain aspect of design thinking that helps in enhancing customer interactions.(CO3,K3) 1
- (a) Automating backend processes
- (b) Creating user-friendly interfaces
- (c) Increasing transaction fees
- (d) Focusing on internal operations

- 1-d. Find the phase of a design innovation project in which secondary research is most useful.(CO4,K2) 1
- (a) Idea Generation
  - (b) Data Collection
  - (c) Concept Development
  - (d) Prototype Testing
- 1-e. Identify the purpose of a prototype in the product development process.(CO5,K2) 1
- (a) To finalize the design
  - (b) To test and validate design concepts
  - (c) To replace the MVP
  - (d) To market the product

2. Attempt all parts:-

- 2.a. Explain the ways that can be used by organizations to foster a culture of creativity.(CO1,K2) 2
- 2.b. Discuss the process of generating design ideas and its significance in product development.(CO2,K1) 2
- 2.c. Mention the role of empathy in the application of design thinking in healthcare.(CO3,K2) 2
- 2.d. Describe ways surveys can be used to gather quantitative data from users.(CO4,K1) 2
- 2.e. Explain the primary difference between a prototype and an MVP.(CO5,K3) 2

## **SECTION-B**

15

3. Answer any three of the following:-

- 3-a. Evaluate the role of empathy in the design thinking process and its impact on innovation.(CO1,K5) 5
- 3-b. Explain the process of generating design ideas and its significance in the development of new products or services.(CO2, K2) 5
- 3.c. Analyze a case study where design thinking was used in management decision-making. Explain the key strategies and results.(CO3,K3) 5
- 3.d. Discuss an example where data collected through market research significantly improved a product design.(CO4,K2) 5
- 3.e. Describe the steps involved in conducting usability testing for a design solution. Evaluate its impact on product development.(CO5,K4) 5

## **SECTION-C**

30

4. Answer any one of the following:-

- 4-a. Describe a situation in which creative thinking led to a breakthrough innovation in a specific industry. Analyze the steps taken and the outcomes achieved.(CO1,K2) 6
- 4-b. An organization needs to revamp its product development process. Propose a design thinking approach to redesign the process and discuss expected 6

benefits.(CO1,K1)

5. Answer any one of the following:-

- 5-a. A software company aims to improve user experience through design thinking. Identify the ways they can use lateral thinking and synectics to drive innovation.(CO2,K1) 6
- 5-b. Discuss a case where mind mapping was used effectively to solve a complex problem in a project. Mention the key factors that led to its success.(CO2,K3) 6

6. Answer any one of the following:-

- 6-a. A financial services firm is looking to innovate its product offerings. Describe ways design thinking can be used to develop new financial products that meet customer needs and expectations.(CO3,K4) 6
- 6-b. A university wants to use design thinking to enhance its student support services. Outline ways this can be implemented and discuss the potential benefits for students and staff.(CO3,K5) 6

7. Answer any one of the following:-

- 7-a. A new e-commerce platform is being developed. Discuss ways usability testing and customer feedback surveys can be used to refine the platform and enhance user experience.(CO4,K1) 6
- 7-b. A healthcare provider is developing a new patient portal discuss artificial implications that can be utilized to ensure the portal meets patient needs and preferences.(CO4,K3) 6

8. Answer any one of the following:-

- 8-a. Explain reverse engineering in detail along with its steps and significance.(CO5,K2) 6
- 8-b. An electronics company is using reverse engineering to analyze a competitor's successful product. Describe ways this information can be used to enhance their own product development process.(CO5,K1) 6