

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2023  
(Third Semester)

Branch – COMPUTER SCIENCE

**DESIGN THINKING**

Time: Three Hours

Maximum: 50 Marks

**SECTION-A (5 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

1. You are a designer working for a company that produces smart home devices. You have used design thinking to create a new product that allows users to control their home appliances remotely using voice commands. You have implemented the product and launched it to the market. How can you measure the impact of your product on your customers?
  - i) By comparing your product with your competitors' products
  - ii) By tracking your product sales and revenue
  - iii) By collecting user feedback and satisfaction ratings
  - iv) By observing how your product improves people's lives
2. What is the main purpose of empathy maps in the empathize phase of the design thinking process?
  - i) To create a shared understanding of user needs and aid in decision making
  - ii) To generate a list of features and functions for a product or service
  - iii) To test the usability and desirability of a product or service
  - iv) To define the scope and goals of a product or service
3. During the prototyping stage, what is the purpose of testing prototypes with real users who represent the target market?
  - i) To identify design and functionality issues early on
  - ii) To gather feedback on the user interface
  - iii) To ensure the product meets the user's demands
  - iv) All of the above
4. What is the importance of strategic foresight in design thinking?
  - i) It enables companies to anticipate future changes and prepare for them.
  - ii) It helps companies focus only on the present moment.
  - iii) It makes companies reactive to changes rather than proactive.
  - iv) It hinders companies' ability to create long-term strategies.
5. What is the main purpose of creating user personas in design thinking?
  - i) To represent the different user types that might use your product or service in a similar way
  - ii) To test the usability and functionality of your product or service with real users
  - iii) To generate ideas and solutions for your product or service based on userfeedback
  - iv) To evaluate the success and impact of your product or service on user satisfaction

Cont...

**SECTION - B (15 Marks)**

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Justify the need for Design thinking.  
OR  
b Analyze the importance of Empathize Step in Design Thinking.
- 7 a Explain about visual metaphors.  
OR  
b Explain about Collaboration in Distributed design.
- 8 a Discuss the scenarios is low-fidelity prototyping most effective.  
OR  
b Justify when should we prefer Lego prototypes over other types of prototypes in design thinking?
- 9 a Analyze the use of Story telling in ideation phase.  
OR  
b Explain how design thinking helps for Strategic Foresight?
- 10 a Explain the importance of users and the design team in the testing phase.  
OR  
b Discuss about usability and ergonomic Testing.

**SECTION -C (30 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Enumerate the various stages of design thinking.  
OR  
b Elucidate how to build a MVP using design thinking?
- 12 a Interpret the tools of Design Thinking.  
OR  
b Explain how brainstorming helps in design thinking?
- 13 a Elucidate about Lean startup method of prototype development.  
OR  
b Compare and Contrast Proof of concept and prototyping.
- 14 a Explain about experience design with examples.  
OR  
b Assess how to create a design thinking mindset in the Organization?
- 15 a Elaborate piloting and launching in Design Thinking.  
OR  
b Analyze key Challenges in Testing and Implementation.

Z-Z-Z

END