**MSc DEGREE EXAMINATION MAY 2026**
(Third Semester)

Branch – **COMPUTER SCIENCE**

**DESIGN THINKING**

Time: Three Hours

Maximum: 75 Marks

**SECTION-A (10 Marks)**
Answer **ALL** questions
**ALL** questions carry **EQUAL** marks (10 × 1 = 10)

| Module No. | Question No. | Question | K Level | CO |
|---|---|---|---|---|
| 1 | 1 | Design thinking primarily focuses on _____.<br>(i) Technology-centered solutions<br>(ii) User-centered solutions<br>(iii) Cost reduction only<br>(iv) Hardware development | K1 | CO1 |
| | 2 | MVP stands for _____.<br>(i) Most Valuable Process (ii) Minimum Variable Prototype<br>(iii) Maximum Value Plan (iv) Minimum Viable Product | K2 | CO1 |
| 2 | 3 | Sketching is important because it _____.<br>(i) Replaces final product (ii) Visualizes ideas quickly<br>(iii) Eliminates teamwork (iv) Requires expensive tools | K1 | CO2 |
| | 4 | Thinking in colour involves _____.<br>(i) Emotional and psychological effects<br>(ii) Hardware design<br>(iii) Network protocols<br>(iv) Memory allocation | K2 | CO2 |
| 3 | 5 | Finishing of a prototype relates to _____.<br>(i) Shipping process (ii) Final packaging<br>(iii) Marketing strategy (iv) Surface quality and detailing | K1 | CO3 |
| | 6 | Design thinking in IT mainly improves _____.<br>(i) Network bandwidth<br>(ii) Hardware speed<br>(iii) User-centered software solutions<br>(iv) Data compression | K2 | CO3 |
| 4 | 7 | Storytelling in design thinking is used to _____.<br>(i) Entertain users only<br>(ii) Replace data analysis<br>(iii) Communicate ideas and vision effectively<br>(iv) Reduce documentation | K1 | CO4 |
| | 8 | Rapid prototyping helps to _____.<br>(i) Delay development (ii) Test ideas quickly<br>(iii) Increase costs (iv) Avoid feedback | K2 | CO4 |
| 5 | 9 | The primary goal of the Empathize stage is to _____.<br>(i) Generate technical solutions<br>(ii) Understand users' needs and experiences<br>(iii) Test final products<br>(iv) Optimize performance | K1 | CO5 |
| | 10 | _____ stage converts ideas into tangible forms for evaluation.<br>(i) Define (ii) Ideate<br>(iii) Prototype (iv) Empathize | K2 | CO5 |

**Cont...**

Answer **ALL** questions

**ALL** questions carry **EQUAL** Marks (5 × 7 = 35)

| Module No. | Question No. | Question | K Level | CO |
|---|---|---|---|---|
| 1 | 11.a. | Explain Stage 1 -Define and Stage 2 -Research in the design process. | K2 | CO1 |
| | | (OR) | | |
| | 11.b. | Write the importance of global design presentations. | | |
| 2 | 12.a. | Illustrate brainstorming techniques and their benefits. | K3 | CO2 |
| | | (OR) | | |
| | 12.b. | Explain tools for design thinking that support real-time collaboration. | | |
| 3 | 13.a. | Discuss the role of scale and media in prototype development. | K3 | CO3 |
| | | (OR) | | |
| | 13.b. | Explain Agile methodology in virtual collaboration environments. | | |
| 4 | 14.a. | Discuss value redefinition in competitive markets. | K3 | CO4 |
| | | (OR) | | |
| | 14.b. | Explain the role of Design Thinking in managing organizational change. | | |
| 5 | 15.a. | Explain the Empathize stage and its importance in Design Thinking workshops. | K2 | CO5 |
| | | (OR) | | |
| | 15.b. | Explain the iterative nature of the Design Thinking process. | | |

## SECTION -C (30 Marks)

Answer **ANY THREE** questions

**ALL** questions carry **EQUAL** Marks (3 × 10 = 30)

| Module No. | Question No. | Question | K Level | CO |
|---|---|---|---|---|
| 1 | 16 | Evaluate the effectiveness of MVP in software product development. | K5 | CO1 |
| 2 | 17 | Analyze the role of visual thinking techniques such as metaphors, personification and humour. | K4 | CO2 |
| 3 | 18 | Discuss different types of prototypes and their suitability for various design stages. | K3 | CO3 |
| 4 | 19 | Explain storytelling and strategic foresight in innovation planning. | K3 | CO4 |
| 5 | 20 | Describe the role of prototyping and testing in reducing risk in product development. | K3 | CO5 |

Z-Z-Z END