

TILAK MAHARASHTRA VIDYAPEETH, PUNE
BACHELOR OF SCIENCE
(DATA SCIENCE) (787)/
(ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING) (788)
EXAMINATION: JANUARY - 2026
SEMESTER - I
Sub: UI/UX Design (78725 -105, 78825-105)

Date : 10/01/2026

Total Marks : 60

Time: 10.00am To 12.30pm

Instructions:

1. All questions are compulsory unless and otherwise stated.
2. Bold figures to the right of every question are the maximum marks for that question.
3. Candidates are advised to attempt questions in order.
4. Answers written illegibly are likely to be marked zero.
5. Use of scientific calculators, Log tables, Mollier Charts is allowed.
6. Draw neat and labelled diagrams wherever necessary.

Q.1. Fill in the blanks. (05)

1. UI stands for _____, while UX stands for _____.
a) User Interface & User experience b) User Interaction, User Experience
c) User Information, User Extension d) User Interaction, User Extension
2. The first stage of Design Thinking is _____.
a) Thinking b) Wireframing
c) Empathize d) Prototyping
3. _____, _____, and _____ are popular tools for UI/UX design.
a) Figma, Adobe AD, Sketch b) AdobeXD, Sketch, Wireframe
c) MD5, Canva, Figma d) Canva, Typo, MD5
4. _____ is the process of creating a preliminary model of a product.
a) Typography b) Wireframing
c) Prototyping d) User Personas
5. In responsive design, _____ approach prioritizes designing for smaller screens first.
a) Design Thinking b) Mobile First
c) User Personas d) Low Fidelity Framing

Q.2. State True/False. (05)

1. User personas include goals, motivations, and frustrations.
2. Wireframing is used to create high-fidelity interactive prototypes.
3. Low-fidelity wireframes are usually created during the prototyping phase.
4. Typography and color theory are part of visual design principles.
5. A/B testing is a method of gathering user feedback during usability testing.

Q.3. Answer the following. (Solve any 5) (10)

1. Define UI and UX. Explain the difference between them.
2. What are the principles of good design?
3. Explain the stages of the Design Thinking process.
4. Name two usability testing methods and explain them briefly.

5. Explain the difference between paper prototyping and digital prototyping.
6. Name any two UI patterns and explain their usage.

Q. 4. Answer the following in detail. (Solve any 6) (30)

1. Explain the process of user research and its importance in UI/UX design.
2. Describe persona development with an example.
3. Explain information architecture and navigation models in detail.
4. Discuss typography, color theory, and contrast in visual design.
5. Explain wireframing with examples and its role in prototyping.
6. Discuss usability testing methods including A/B testing and think-aloud protocol.
7. Explain responsive and adaptive design principles.

Q. 5. Answer the following in detail. (Solve any 1) (10)

1. Explain the complete process of designing a user-centered mobile application or website.
 2. Describe the role of UI/UX design in emerging technologies like AR/VR and wearable devices.
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