

## UI/UX

### Unit I:

1. Define UI (User Interface) Design and explain its importance in software development.
2. Define UX (User Experience) Design and discuss how it affects user satisfaction and engagement.
3. Differentiate between UI and UX design with suitable examples.
4. Explain the Design Thinking Process and its key stages in solving design problems.
5. Discuss the role of empathy in UI/UX design and how it influences design decisions.
6. Explain the principles of User-Centered Design (UCD) and why it is critical in product design.
7. Describe the principles of UI/UX design.
8. Explain how UI/UX design contributes to the success of a digital product or business.
9. Discuss the importance of feedback and responsiveness in enhancing user experience.
10. Explain the relationship between usability, UI design, and UX design with examples from real-world applications.

## UNIT-2

1. Explain the importance of user research in UI/UX design and how it impacts product development.
2. Discuss at least three techniques for user research(Surveys and Questionnaires) and explain how each technique helps in understanding users.
3. Explain the process of creating user personas and their significance in UX design.
4. Describe how user scenarios are developed and how they assist in designing better experiences.
5. Explain the concept of empathy maps and how they help designers understand user behavior and emotions.
6. Discuss the purpose and creation of user journey maps in UX design.
7. How do designers identify user needs and goals, and why is this step critical in the design process?
8. Explain the difference between qualitative and quantitative user research with examples.
9. Discuss the Understanding of user needs and goals.
- 10.Explain how findings from user research influence UI/UX design decisions and improve overall usability.

## UNIT -3

1. Explain the key principles of Information Architecture (IA) and discuss why IA is essential for creating user-friendly digital products.
2. Define Information Architecture and describe the role it plays in organizing and structuring content within a website or application.
3. Discuss the steps involved in creating a sitemap. How does a sitemap contribute to better navigation and usability?
4. What is a sitemap? Explain the types of sitemaps and their importance in UI/UX design.
5. Explain wireframing. Describe the purpose of wireframes and how they support the UI/UX design process.
6. Describe the different levels of wireframes (low-fidelity, mid-fidelity, high-fidelity).  
How does each type help in the design process?
7. Compare and contrast the popular wireframing tools—Figma, Sketch, and Balsamiq. What are the strengths and limitations of each?
8. Explain the basic components of a wireframe. How do elements like layout, information hierarchy, navigation, and placeholders contribute to effective design?
9. Discuss how Information Architecture and wireframing work together to create a seamless user experience. Provide suitable examples.
10. What factors should a designer consider when selecting a wireframing tool?  
Explain with reference to Figma, Sketch, and Balsamiq.

## UNIT -4

- 1) Differentiate between low-fidelity and high-fidelity prototypes. Explain the

- advantages, limitations, and appropriate use cases for each.
- 2) What are the key characteristics of low-fidelity prototypes? Discuss their role in early-stage UI/UX design with suitable examples.
  - 3) Explain the features and capabilities of interactive prototyping tools such as InVision, Adobe XD, and Figma. Compare their strengths and weaknesses.
  - 4) Discuss the importance of high-fidelity prototypes in validating the visual design, interactions, and user flow of a digital product.
  - 5) Define interaction design. Explain its core principles (consistency, feedback, learnability, visibility, affordance) with examples.
  - 6) How do interactive prototyping tools support usability testing and design iteration? Explain with examples from InVision, Adobe XD, or Figma.
  - 7) Explain the concept of micro-interactions. Discuss their components (trigger, rules, feedback, loops) and their impact on user experience.
  - 8) What is the role of animation in interaction design? Discuss how animations help in guiding user attention, enhancing transitions, and improving usability.
  - 9) Describe the process of converting a wireframe into a high-fidelity interactive prototype. What challenges might designers face during this process?
  - 10) Explain how micro-interactions and animations contribute to emotional design. Provide

examples of how they improve user engagement and satisfaction.

## UNIT-5

- 1.Explain the core visual design principles—color theory, typography, and spacing. Discuss how they contribute to creating an effective user interface.
- 2.What is accessibility in UI/UX design? Discuss key accessibility guidelines (WCAG principles) and explain how designers ensure inclusive design.
- 3.Describe the process of conducting usability tests. Explain the steps involved in planning, executing, and evaluating a usability study.
- 4.Discuss different usability testing methods (e.g., moderated testing, unmoderated testing, A/B testing, Qualitative, Quantitative). Explain their advantages and limitations.
- 5.Explain the process of analyzing usability test results. How should designers identify issues, prioritize them, and prepare a usability report?
- 6.Describe how designs are converted into code. Explain the role of design handoff, developer assets, style guides, and tools like Figma ,Adobe XD.
- 7.What are responsive design principles? Explain how fluid grids, breakpoints, flexible images, and media queries help in building device-friendly interfaces.
- 8.Discuss the importance of design systems in modern UI/UX workflows. Explain components, patterns, guidelines, and how they improve consistency and efficiency.
- 10.Describe the collaboration process between designers and developers. Explain key challenges and how tools, communication, and documentation improve the workflow.
- 11.How do color contrast, font hierarchy, alignment, and spacing influence readability and visual hierarchy in UI/UX design? Provide examples.
- 12.Discuss the importance of accessibility testing. What tools and techniques are used to evaluate accessibility in digital products?