INSTITUTE OF AERONAUTICAL ENGINEERING
(Autonomous)
Dundigal, Hyderabad - 500 043

B TECH V SEMESTER CIE–II EXAMINATIONS, FEBRUARY– 2024
Regulation: UG20
HUMAN COMPUTER INTERACTION (UI&UX)
(COMMON TO CSE | CSE(AI&ML) | CSE(CS) | CSIT | IT)

Time: 2 Hours   **Max Marks: 20**

Answer any FOUR questions
All parts of the question must be answered in one place only

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1. (a) Explain the Gestalt principles and their relevance in interface design. What are psychological principles in interface design?   [BL: Understand| CO: 4|Marks: 2]

    (b) How can you add sounds to the interface? Briefly describe about earcons, auditory icons and soundscapes.   [BL: Understand| CO: 4|Marks: 3]

2. (a) What are the key considerations in designing global navigation menus for websites, and how does it contribute to a seamless user experience?   [BL: Understand| CO: 5|Marks: 2]

    (b) While designing interactive systems, discuss the trade-off between security and usability. How can designers choose the most appropriate approach for a given project?

                                           [BL: Apply | CO: 5|Marks: 3]

3. (a) Outline the challenges and considerations that arise in the design of collaborative environments, and how can human-computer interaction (HCI) principles address them ?

                                       [BL: Understand| CO: 5|Marks: 2]

    (b) Organizing being an important part of designing, sketch the various organizational structures available in designing a website with necessary diagrams.   [BL: Apply | CO: 5|Marks: 3]

4. (a) How can user feedback be effectively collected and utilized in the evaluation of mobile interfaces in HCI?

                                       [BL: Understand| CO: 6|Marks: 2]

    (b) Describe the phases of the participative design process, from initial planning and user involvement to evaluation and refinement.   [BL: Understand | CO: 2|Marks: 3]

5. (a) Why are smart materials important? How do smart materials contribute to the field of HCI?

                                       [BL: Understand| CO: 6|Marks: 2]

    (b) Comment on the spacesuit, the ultimate wearable computer design. Use the tidy diagram to identify each of their parts.   [BL: Apply | CO: 6|Marks: 3]

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