

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Bachelor of Technology (Computer Engineering) SEMESTER - 5 Winter 2025 (Regular)

Course :Bachelor of Technology (Computer Engineering) Branch : Engineering and Technology

Semester : SEMESTER - 5

Subject Code & Name: BTCOE504A - HUMAN COMPUTER INTERACTION

Time : 3 Hours]

[Total Marks : 60

Instructions to the Students:

1. Each question carries 12 marks.
 2. Question No. 1 will be compulsory and include objective-type questions.
 3. Candidates are required to attempt any four questions from Question No. 2 to Question No. 6
 4. Use of non-programmable scientific calculators is allowed.
 5. Assume suitable data wherever necessary and mention it clearly.
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Q1. Objective type questions. (Compulsory Question) 12

- 1 Which of the following is the primary goal of Human Computer Interaction (HCI)?
 - a) To design user-friendly interfaces
 - b) To make computers faster
 - c) To reduce software size
 - d) To increase hardware requirements
- 2 Navigation design primarily focuses on _____.
 - a) Determining software architecture
 - b) Helping users move through the interface easily
 - c) Increasing network speed
 - d) Improving security protocols
- 3 “Visibility of system status” means the system should _____.
 - a) Hide internal operations
 - b) Run silently
 - c) Provide clear and timely feedback
 - d) Never show error messages
- 4 Which of the following is a key element of a windowing system?
 - a) Windows, icons, menus and pointers
 - b) CPU scheduling
 - c) Database connectivity
 - d) Machine code translation
- 5 Nielsen’s heuristics mainly focus on _____.
 - a) Hardware architecture
 - b) User interface usability
 - c) Data structures
 - d) Programming languages

- 6 Which is a major advantage of face-to-face communication?
- Always recorded automatically
 - Requires no interpretation
 - Supports immediate feedback
 - Eliminates misunderstandings completely
- 7 Computer-Mediated Communication (CMC) involves communication through ____.
- Physical gestures only
 - Electronic devices and networks
 - Face-to-face meetings
 - Printed documents
- 8 A mouse is an example of which type of device?
- Text entry device
 - Storage device
 - Display device
 - Positioning, pointing device
- 9 Evaluation through user participation focuses on ____.
- What experts believe about usability
 - Direct feedback from end users
 - Only error logging
 - System performance benchmarking
- 10 In HCI, "reasoning" refers to ____.
- Remembering instructions
 - Drawing conclusions from available information
 - Performing random actions
 - Storing sensory data
- 11 A physical model represents ____.
- The user's physical actions when interacting with devices
 - Hardware repairs
 - AI decision-making
 - Operating system schedules
- 12 Which of the following is an example of ubiquitous computing application?
- Smart home automation
 - Fax machines
 - Typewriters
 - CRT monitors
- Q2. Solve the following.
- Write a short note on Human Memory 6
 - Explain in brief Reasoning and Problem Solving in HCI. 6
- Q3. Solve the following.
- State & explain golden rule of design. 6
 - Explain Software Process in HCI 6
- Q4. Solve Any Two of the following.
- State the Universal Design Principles in detail. 6
 - Write briefly about Nielsen's heuristics for evaluation. 6
 - Explain different element of Windowing System. 6

Q5. Solve Any Two of the following.

- A) Explain Face to Face communication in detail. 6
- B) Explain Keystroke-level model. 6
- C) Write a note on GOMS. 6

Q6. Solve Any Two of the following.

- A) Explain the concept of Augmented Reality (AR) and its applications in various domains 6
- B) Compare Static and Dynamic web content. 6
- C) Explain Computer Mediated Communication in detail. 6

*** End ***