



FINAL EXAMINATION MARCH 2024

COURSE TITLE

HUMAN COMPUTER INTERACTION

COURSE CODE

RCIT4113

DATE/DAY

19 JUNE 2024 / WEDNESDAY

TIME/DURATION

02:00 PM - 04:00 PM / 02 Hour(s) 00 Minute(s)

INSTRUCTIONS TO CANDIDATES:

1. Please read the instruction under each section carefully.

2. Candidates are reminded not to bring into examination hall/room any form of written materials or electronic gadget except for stationery that is permitted by the Invigilator.

 Students who are caught breaching the Examination Rules and Regulation will be charged with an academic dishonesty and if found guilty of the offence, the maximum penalty is expulsion from the University.

(This Question Paper consists of 6 Printed Pages including front page)

This question paper contains TWO (2) sections. Please answer ALL questions in the answer booklet. [70 MARKS]

SECTION A

(30 Marks)

There are THIRTY (30) questions in this part. Answer ALL question in the answer booklet.

- 1.In HCl, what does the term "interaction design" primarily focus on?
 - A. Understanding users' cognitive processes
 - B. Designing visually appealing interfaces
 - C. Creating effective communication between users and systems
 - D. Analyzing user requirements and system constraints
- 2. Which of the following is a cognitive factor that affects user interaction with computer systems?
 - A. Screen resolution
 - B. User's memory capacity
 - C. Internet speed
 - D. Keyboard layout
- 3. What aspect of human-computer interaction does understanding users' affective factors primarily address?
 - A. User interface design
 - B. User's emotional responses
 - C. User's physical capabilities
 - D. User's technical skills
- 4. Which statement best describes the relationship between computers and human-computer interaction?
 - A. Computers are the only focus of human-computer interaction.
 - B. Human-computer interaction refers to any interaction between humans and technology.
 - C. Human-computer interaction is irrelevant to the development of computer systems.
 - D. Computers dictate human behaviours in human-computer interaction.
- 5. What distinguishes web interfaces from other types of interfaces in HCI?
 - A. Web interfaces are only accessible through desktop computers.
 - B. Web interfaces use specific programming languages.
 - C. Web interfaces are designed for interaction over the internet.
 - D. Web interfaces do not require user input.

- 12. What is the primary focus of cognitive factors in HCI?
 - A. Users' emotional responses
 - B. Users' physical abilities
 - C. Users' mental processes
 - D. Users' social interactions
- 13. What distinguishes mobile interfaces from other interfaces in HCI?
 - A. Mobile interfaces are only accessible through smartphones.
 - B. Mobile interfaces are optimized for touch interactions and smaller screens.
 - C. Mobile interfaces require a constant internet connection.
 - D. Mobile interfaces are less secure than other interfaces.
- 14. Which HCI method involves creating simplified versions of the interface to gather feedback from users?
 - A. Usability testing
 - B. Requirements analysis
 - C. Prototyping
 - D. Analytic evaluation
- 15. What is the primary goal of interface design in HCI?
 - A. To make the system visually appealing
 - B. To ensure compatibility with all devices
 - C. To enhance user experience and efficiency
 - D. To prioritize technical features over user preferences
- 16. Which HCI concept involves designing interfaces that accommodate users with permitted. disabilities?
 - A. Accessibility
 - B. Usability
 - C. Efficiency
 - D. Aesthetic appeal
- 17. Which HCl method involves analyzing user interactions with the system to identify areas for improvement?
 - A. Usability testing
 - B. Prototyping
 - C. Analytic evaluation
 - D. Requirements analysis

- 24. What is the primary focus of cognitive walkthroughs in HCI?
 - A. Identifying errors and inconsistencies in the interface
 - B. Analyzing users' emotional responses to the system
 - C. Assessing the efficiency of user interactions
 - D. Understanding users' mental processes during task completion
- 25. Which HCl concept refers to the ease with which users can navigate and interact with a system?
 - A. Accessibility
 - B. Usability
 - C. Flexibility
 - D. Efficiency
- 26. What is the primary goal of heuristic evaluation in HCI?
 - A. To identify usability issues based on a set of predefined principles
 - B. To measure user satisfaction with the interface
 - C. To test the system's performance under different conditions
 - D. To gather feedback from users through interviews
- 27. Which HCl method involves analyzing data collected from user interactions with the system to identify patterns and trends?
 - A. Usability testing
 - B. Analytic evaluation
 - C. Field studies
 - D. Requirements analysis
- 28. What is the primary purpose of conducting a field study in Human-Computer Interaction (HCI)?
 - A. To observe users in their natural environment and understand their behaviours, needs and challenges.
 - B. To conduct controlled experiments in a laboratory setting to evaluate user interfaces.
 - C. To analyze the codebase of a digital product for potential bugs and vulnerabilities.
 - D. To design graphical user interfaces (GUIs) using industry-standard software tools.
- 29. What is the primary focus of usability testing in HCI?
 - A. To evaluate the system's performance under different conditions
 - B. To gather feedback from users through interviews or surveys
 - C. To measure user satisfaction with the interface
 - D. To assess the ease with which users can learn and use the system

SECTION B

(40 Marks)

There are THREE (3) questions in this part of the examination paper. Answer ALL question in the answer booklet.

Question 1

Describe FIVE (5) main feature that will make a good website design.

(15 marks)

Question 2

Discuss the concept of usability in Human-Computer Interaction (HCI) and its importance in the design and evaluation of interactive systems. (10 marks)

Question 3

- (a) Explain the concept of affordances in Human-Computer Interaction (HCI) and its significance in interface design. (6 marks)
- (b) Discuss how affordances influence user interaction with digital interfaces and provide THREE (3) examples to illustrate their importance. (9 marks)

