

BINDURA UNIVERSITY OF SCIENCE EDUCATION
FACULTY OF APPLIED SCIENCE AND ENGINEERING
DEPARTMENT OF COMPUTER SCIENCE
BSc HONS DEGREE IN COMPUTER SCIENCE
CS408 -HUMAN AND COMPUTER INTERACTION

DURATION: 2 HOURS 30 MINS

TOTAL MARKS: 100

INSTRUCTIONS TO CANDIDATES:

1. Answer ALL Questions.
2. Use the given answer sheet for answers

NOV 2024

Question 1

Mrs Ruza, is a busy working parent, has been struggling to find an efficient way to manage her family's grocery shopping. She often finds herself rushing to the supermarket after work, navigating crowded aisles, and forgetting essential items on her list. Frustrated with the time-consuming and stressful nature of her weekly grocery trips, Mrs Ruza decides to explore the possibility of using a mobile app to simplify the process.

Mrs Ruza reaches out to a local software development company, Mahindra Solutions, to help her design and develop a user-friendly mobile app for grocery ordering and delivery. The Mahindra Solutions team, led by their senior UI/UX designer, Grace, enthusiastically takes on the project.

- a) Evaluate the process that Mahindra Solutions team will follow in designing the interface mockups for this mobile grocery-ordering app. [7]

- b) Discuss the importance of interface mockups in the user-centered design process. [7]
- c) Identify and describe three specific Gestalt principles that Mahindra Solutions team would consider when designing the user interface for the grocery-ordering app. [6]

Question 2

- a) Identify three types of disabilities and explain how these can cause difficulties when interacting with computer interfaces. [6]
- b) Discuss the significance of addressing user differences in the design process. [14]

Question 3

- a) State and explain any four examples of User Interface metaphors. [8]
- b) Explain the impact of user interface metaphors on overall user experience. [12]

Question 4

You have been tasked with designing a new mobile banking application for a major financial institution. Describe the key user centered design principles and methods you would employ throughout the design and development process. [20]

Question 5

Analyze how design and integration of hardware and software components can impact the usability, efficiency and engagement of digital systems. [20]

THE END