



**THE OPEN UNIVERSITY OF SRI LANKA  
DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING  
BACHELOR OF SOFTWARE ENGINEERING PROGRAM**

**ECI5161 Human Computer Interaction**

**Final Examination – 2010/2011**

**(Closed Book)**

**Date: 20<sup>th</sup> November 2010**

**Time: 9.30 – 12.30 hrs**

**Answer question 1 in Part A and any 2 questions from Part B**

**Part A (Compulsory Question) 50 marks**

- 1) You are asked to design interfaces for an 'Automated Cash Deposit' system for a Bank Called ABC.

The system should allow customers to deposit their money via the cash deposit machine. The machine includes a special slot to accept envelopes with cash and it has a touch screen interface.

- a. Draw the task analysis for the system including Task Hierarchy Diagram.
- b. Create a persona for an example user.
- c. Draw the prototype screen designs for the system.
- d. Describe the colors, font details and other controls used in the prototype screens and justify your choices.
- e. What are evaluation methods that you can use to evaluate these prototypes?

**Part B (Answer only 2 questions, each question carries '25 marks')**

- 1)
  - a. Describe the 'usability engineering lifecycle' process.
  - b. What are the attributes of usability according to Nielsen [1993]?
  - c. Explain the two main types of 'usability evaluations'.

- 2)
  - a. "HCI systems should be designed to help users form correct productive mental models". Explain the factors which are related to good design.
  - b. Describe three of the interface metaphors used in computer applications.
- 3) In usability testing, experiments are carried out with real test users to obtain specific information about an interface.
  - a. Describe the purposes and benefits of conducting usability testing.
  - b. Explain key stages in conducting a usability test.
  - c. Describe two main usability testing methods.