THE OPEN UNIVERSITY OF SRI LANKA

Faculty of Engineering Technology
Department of Electrical & Computer Engineering
Bachelor of Software Engineering
FINAL EXAMINATION – (2009/2010)

ECI5161 – Human Computer Interaction

CLOSED BOOK EXAM

Time Allowed: **3 hours**

Date: **29ᵗʰ May 2010**   Time: **0930 – 1230 hours**

Answer Question 1 from Part A and *any two* questions from Part B

Part A (Compulsory Question) 50 marks

1) Interactive directories offer the shoppers an effective way of finding shops and products, while offering the mall owners and tenants a unique advertising platform.

    LakPlaza is a leading shopping mall in Sri Lanka. The owner of the LakPlaza needs to develop an interactive directory to be used by the shoppers to find the shops and products easily.

    You have been asked to design a prototype system for the above interactive directory system.

    a. Do the task analysis for the system.
    b. For each task describe the preconditions, goals, information needs and a scenario (story).
    c. Create a persona for an example user.
    d. Draw the prototype screen designs for the system.
    e. What are evaluation methods you can use to evaluate these prototypes?

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

1)   a. Why is HCI considered as an interdisciplinary practice?

       b. HCI is an Interdisciplinary subject. Briefly describe how that each of the following disciplines have made contributions to HCI:

- Cognitive Psychology
- Ergonomics or Human factors
- Linguistics

       c. What are the four stages of the human information processing model?

2)   a. What are the mental models? What happens if the user's mental model does not match the designer's conceptual model?

       b. Describe the terms "Gulf of Execution" and "Gulf of Evaluation". Explain how the users and designers can bridge these gulfs.

3)   a. Describe the usability engineering lifecycle process.

       b. Explain two of the common prototyping methods used in iterative design.