

THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF ENGINEERING TECHNOLOGY
DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
BACHELOR OF SOFTWARE ENGINEERING



ECI5161 - HUMAN COMPUTER INTERACTION
FINAL EXAMINATION 2011/ 2012

Date: 26-11-2011

Time: 9.30 – 12.30hrs

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

Part A

1) Read the scenario given below and answer all questions.

Suppose you are asked to develop an interactive web portal for the young people in Sri Lanka. This portal would be the 'first-stop-shop' for all sort of requirements of these young people in the categories of educational, entertainment and other information needs. The target audience is in the age group of 13-21 years old. The portal should be accessible by any computer connection, from dial up connection of 56k modems to broadband connection of home ADSL. It is also required to consider users who may access this portal.

It is important that the confidence of users must be built in a such way that they could meet all their requirements from this portal. Hence, the real requirements must be gathered through an extensive surveys and interviews covering youth from different provinces of the country.

- a) Draw the Task Hierarchy Diagram based on the user analysis and task analysis for the system including. (10 marks)
- b) Create a persona for a common user. (10 marks)
- c) Draw the prototype screen designs for the system. (10 marks)
- d) Describe the colors, font details and other controls used in the prototype and justify your choices. (10 marks)

- e) Explain the evaluation processes that you will carry out to evaluate these prototypes. (10 marks)

Part B

- 2) a) Describe the user centered design process. What are the draw backs of system centered design process? (10 marks)
- b) What is the perception? Name and explain two proposed theories to explain the perception. (10 marks)
- c) Describe the usefulness in Graphical coding and Color coding in the visual representation. (5 marks)
- 3) a) What is the difference between “Gulf of Evaluation” and “Gulf of Execution” in system design? (10 marks)
- b) Explain the usefulness of interface metaphors in interface design. (10 marks)
- c) “Systems should be designed to help users form the correct mental models”. What are the factors that should be included in the common design methods? (5 marks)
- 4) a) Describe the ‘usability engineering lifecycle’ process. (10 marks)
- b) Explain two main “Usability Evaluation” methods used in Human Computer Interaction. (10 marks)
- c) State the differences between “Usability Evaluation” and “Usability Testing”. (5 marks)