



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE IN SOFTWARE ENGINEERING

SSE 213: SOFTWARE ENGINEERING APPROACH TO HCI

DATE: MONDAY 16TH APRIL 2012 TIME: 8.00 A.M. – 10.00 A.M.

INSTRUCTIONS

Answer Question ONE and any other TWO Questions.

Question 1

- a) Differentiate between the following
 - i. Formative and summative Evaluation [2 marks]
 - ii. User Interface and Human Computer interface [2 marks]
 - iii. Push button menus and pop up menus [2 marks]
 - iv. Occasional Users and Users with special needs [2 marks]
- b) Discuss any **THREE** factors of human diversity that affect the design and development of user interface. [6 marks]
- c) Name and explain FOUR documents which should be delivered with a software system clearly stating their purpose. [8 marks]
- d) Briefly explain the functions of menu features of a WIMP interface. [4 marks]
- e) Differentiate the following types of user support: On-line tutorials and online documentation [4 marks]

Question 2

- a) Name and explain FIVE main principles of user-design [10 marks]
- b) Briefly describe any FIVE disciplines that have contributed to the development of user interface design and highlight their contributions. [10 marks]

Question 3

- a) "Recognition is easier than recall". Discuss this statement in relation to Menu Driven Interfaces, stating clearly the advantages and disadvantages of the same. [6 marks]
- b) Describe TWO situations in which keyboard input might be preferred over speech for data entry. [4 marks]
- c) Discuss any five types of widgets [10 marks]

Question 4

- a) Explain FOUR facilities included in an interaction system that allow users to recover from their mistakes. [8 marks]
- b) Interface evaluation is the process of assessing the usability of an interface and checking that it meets user requirements.
- c) Outline FOUR attributes of usability. [4 marks]
- d) Discuss the relevance of any FOUR guidelines in the design of a command- based interface. [8 marks]

Question 5

- a) Explain what is meant by Computer Supported Collaborative Works (CSCW) systems. [4 marks]
- b) Explain FIVE characteristics that CSCW system should encompass. [10 marks]
- c) Explain three capabilities that CSCW system architecture must have in order to meet the changing needs of engineering project teams in business environment. [6 marks]