



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of JKUAT)

(A Centre of Excellence)

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

**UNIVERSITY EXAMINATION FOR DEGREE IN BACHELOR OF TECHNOLOGY
IN INFORMATION COMMUNICATION TECHNOLOGY
(BTIT. ICT)**

EIT 4307: HUMAN COMPUTER INTERACTION

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: OCTOBER 2012

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consist of **FIVE** questions

Answer question **ONE** and any other **TWO** questions

Maximum marks for each part of a question are as shown

This paper consists of **TWO** printed pages

SECTION A (COMPULSORY)

Question One (30 marks)

- | | |
|---|------------------|
| a) Outline the challenges of speech recognition. | (5 marks) |
| b) Describe the different user characteristics. | (4 marks) |
| c) Outline the interaction styles. | (4 marks) |
| d) Outline the text entry devices. | (3 marks) |
| e) Define the term Human-Computer Interaction. | (2 marks) |
| f) State the overall goals of Human Computer Interaction. | (3 marks) |
| g) State the FIVE quality components of usability. | (5 marks) |
| h) Explain the term, system development methodology. | (2 marks) |
| i) Explain the phrase 'Bad Interface' | (2 marks) |

SECTION B (Answer Any Two Questions)

Question Two (20 marks)

- a) Discuss the Requirements Analysis for a Human Computer Interacting System. **(10 marks)**
- b) Discuss the Donald Norman's Model of the seven stages of system development. **(10 marks)**

Question Three (20 marks)

- a) Draw the HCL development methodology and describe the parts of the drawing you have done. **(10 marks)**
- b) Explain the common measurable goals for usability. **(5 marks)**
- c) Explain what constitutes a good interface. **(5 marks)**

Question Four (20 marks)

- a) Discuss the categories of user characteristics. **(10 marks)**
- b) Explain the **EIGHT** Golden rules for interactive interface design. **(10 marks)**

Question Five (20 marks)

Discuss the advantages and disadvantages of using speech user interface for a banking system.

(20 marks)