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

<u>**Instructions to Candidates:**</u>
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

<u>**SECTION A (COMPULSORY)**</u>

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)**

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)