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 SCIENCE IN
INFORMATION TECHNOLOGY
(BSC. IT)

BIT 2305: HUMAN COMPUTER INTERFACE

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) Explain the usability attributes. **(5 marks)**
b) How should one design user interface for multimedia? **(3 marks)**
c) Explain the importance of groupware. **(2 marks)**
d) Explain the term usability. **(2 marks)**
e) Fill in the time/space matrix. **(4 marks)**

Same Time

f) Outline the quality components of usability according to Jakob Nielsen (2003) **(5 marks)**
g) State the Human Computer Interface design guidelines. **(3 marks)**
h) Outline the Donald Norman's model. **(3 marks)**
i) Outline the uses of animation. **(3 marks)**

SECTION B (Answer Any Two Questions)

Question Two (20 marks)

a) Draw a flow chart to illustrate user interface design process. **(5 marks)**
b) Describe the user interface design principles. **(5 marks)**
c) Discuss the interaction styles. **(10 marks)**

Question Three (20 marks)

a) Discuss the computer-mediated communication. **(10 marks)**
b) Explain the term usability Engineering. **(3 marks)**
c) Draw the usability Engineering Lifecycle and explain the various sections. **(7 marks)**

Question Four (20 marks)

a) Discuss the spiral process of user interface development process. **(8 marks)**
b) Discuss the Golden rules of user interface design. **(8 marks)**
c) Explain the **FOUR** different models that come into play when a user interface is analyzed and designed. **(4 marks)**

Question Five (20 marks)

a) Explain the term user centered design. **(4 marks)**
b) Outline the advantages and disadvantages of participatory design. **(6 marks)**
c) Discuss the approaches to user support. **(10 marks)**