



(Knowledge for Development)

KIBABII UNIVERSITY COLLEGE

**A CONSTITUENT COLLEGE OF
MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS
2014/2015 ACADEMIC YEAR
THIRD YEAR SECOND SEMESTER
MAIN EXAMINATION
FOR THE DEGREE OF**

BACHELOR OF SCIENCE COMPUTER SCIENCE

COURSE CODE: CSC 324

COURSE TITLE: USER INTERFACE DESIGN

DATE: 28th APRIL, 2015

TIME: 8.00AM-10.00AM

INSTRUCTIONS TO CANDIDATES

Answer Question One in Section A and Any other TWO (2) Questions in Section B

TIME: 2 Hours

Please answer question **ONE** and any other **TWO**

1) Question one

This Paper Consists of 2 printed pages Please Turn Over.

- a) Usability can be defined as a quality attribute that assesses how easy user interfaces are to use.
 - i) State any three quality components of usability (3mks)
 - ii) State any three usability testing methods (3mks)
 - iii) For TWO of the stated methods above, explain how you can apply in testing an interface design (4mks)
- b) What can a system designer do to minimise the memory load of the user? (4mks)
- c) State any FOUR reasons why you would employ prototyping in interface design (4mks)
- d) Describe briefly any THREE different interaction styles used to accommodate the dialog between user and computer. (6mks)

2) Question two

Prototyping is a means of exploring ideas before you can invest in them.

- a) Discuss the pros and cons of employing prototyping in user interface design (10mks)
- b) Prototyping can help an interface designer reconcile the user's and designer's mental models. Discuss (10mks)

3) Question three

- a) Innovation and creativity is a good thing when coming up with new products. However, in the process of interface design, creativity can lead to inappropriate interface designs. Discuss and cite suitable examples of such innovative interfaces (10mks)
 - i) Evaluating a user interface is very important for the developer, using known guidelines explain how you will ascertain that a developed interface will satisfy the user's needs. (10mks)

4) Question four

- a) Various researchers have come up with a variety of user interface design principles.
 - i) State any 4 Normans user interface design principles familiar to you (4mks)
 - ii) Explain any of the two principles stated above and how you can apply it to interface design (4mks)
- b) A designer can employ either symbols or text in the interface design. Compare and contrast the advantages and disadvantages of using either option (10mks)

5) Question five

An appropriate user interface design is critical to the success of any new system.

- a) Explain (6mks)
- b) Briefly explain Shneiderman's eight golden rules of interface design (8mks)
- c) List any FOUR features of a graphical user interface (4mks)