



(Knowledge for Development)
KIBABII UNIVERSITY

**UNIVERSITY EXAMINATIONS
2019/2020 ACADEMIC YEAR**

**SPECIAL/SUPPLEMENTARY EXAMINATIONS
YEAR THREE SEMESTER TWO EXAMINATIONS**

**FOR THE DEGREE OF
BACHELOR OF SCIENCE COMPUTER SCIENCE**

**COURSE CODE : CSC 323
COURSE TITLE : HUMAN COMPUTER
INTERACTION**

DATE: 08/02/2021 TIME: 11.00 A.M – 01.00 P.M

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTIONS ONE AND ANY OTHER TWO

QUESTION ONE [COMPULSORY][30MARKS]

- a) Describe briefly any six factors to consider when choosing an evaluation technique. (6 marks)
- b) State Shneiderman's 8 golden rules that can be used to help designers produce more usable systems. (8 marks)
- c) Discuss any four special factors that need to be considered when designing for older users. (8 marks)
- d) Define the following terms in relation to human computer interaction. (8 marks)
- i. Validation
 - ii. Formality gap
 - iii. Human Computer Interface
 - iv. A computer

QUESTION TWO [20 MARKS]

- a) Usability evaluation may be conducted both during design and implementation of a system. Describe two methods of user participation in design and evaluation and state the advantages and disadvantage associated with each. (8 marks)
- b) Briefly explain the main steps followed in user interface design. (6 marks)
- c) Describe any three techniques that can be used in dialog modeling in user interface management systems (6 marks)

QUESTION THREE [20 MARKS]

- a) State two advantages of the following interaction styles. (6 marks)
- i. Direct Manipulation
 - ii. Menu selection.
 - iii. Form Fill-in
- b) Explain the guidelines which should be followed when using color in user interface. (8 marks)
- c) What is formative and summative evaluation? (4 marks)
- d) Distinguish between obtrusive and un-obtrusive observation. (2 marks)

QUESTION FOUR [20 MARKS]

- a) What is universal design? (2 marks)
- b) State and explain the universal design principles (8 marks)
- c) Discuss any five problems associated with speech recognition and synthesis by computers. (10 marks)

QUESTION FIVE [20 MARKS]

- a) Distinguish between multimedia and multimodal designs. (2 marks)
- b) Discuss six approaches to user support. (12 marks)
- c) Discuss the various management issues that affect the acceptance and relevance of information and communication systems. (6 marks)