



# **MAASAI MARA UNIVERSITY**

**REGULAR UNIVERSITY EXAMINATIONS**

**2018/2019 ACADEMIC YEAR**

**FOURTH YEAR FIRST SEMESTER**

**SCHOOL OF SCIENCE AND INFORMATION SCIENCES**

**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE  
(COMPUTER SCIENCE)**

**COURSE CODE: COM 415**

**COURSE TITLE: HUMAN COMPUTER INTERACTION**

**DATE: 3<sup>RD</sup> DECEMBER 2018**

**TIME: 0830 – 1030 HOURS**

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**INSTRUCTIONS TO CANDIDATES**

1. Answer Question **ONE** and any other **TWO** questions
2. Switch off your mobile phone

*This paper consists of 2 printed pages. Please turn over.*

### **QUESTION ONE**

- a) Outline the advantages of online surveys during usability testing. (5 marks)
- b) Explain the disadvantages of using a touch screen as an interacting device. (5 marks)
- c) Discuss how a software developer should design the interface to take into consideration the following: (10 marks)
  - i. Feedback
  - ii. Familiarity
  - iii. Standardization
  - iv. Short term memory
  - v. Recoverability
- d) Discuss the technological trends in human computer interaction (HCI) discipline. (10 marks)

### **QUESTION TWO**

- a) The environment in which a user works in has an influence on the way they interact with computer systems. Explain this statement. (5 marks)
- b) Explain the importance of auditory feedback when a user is interacting with an input device. (5 marks)
- c) A touch sensitive screen allows a direct pointing device as an interacting device for input. Enumerate the advantages and disadvantages of using it. (10 marks)

### **QUESTION THREE**

- a) Explain what measures you should put in place in order to have a successful expert review. (5 marks)
- b) Discuss the ways in which a full-page word-processor is or is not a direct manipulation interface for editing a document using Shneiderman's criteria. (5 marks)
- c) Discuss the current trends in the development of interacting devices. (10 marks)

### **QUESTION FOUR**

- a) Explain the considerations to make to overcome the limitation of a human being's short term memory in computer interaction. (10 marks)
- b) Overall productivity depends not only on the speed of system but also on the rate of human error and the ease of recovery from these errors.
  - i. Explain reasons why human beings make errors while interacting with computer systems. (5 marks)
  - ii. Describe how as a designer you can overcome these challenges. (5 marks)

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