



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS**

**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF BUSINESS  
ADMINISTRATION WITH IT**

**4<sup>TH</sup> YEAR 2<sup>ND</sup> SEMESTER 2016/2017 ACADEMIC YEAR**

**KISUMU LEARNING CENTRE**

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**COURSE CODE: SCS 416:**

**COURSE TITLE: HUMAN COMPUTER INTERACTION EXAMINATION**

**EXAM VENUE: STREAM: (BBA)**

**DATE: EXAM SESSION:**

**TIME: 2.00 HOURS**

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**INSTRUCTIONS:**

- 1. Answer Question 1 (Compulsory) and ANY other two questions**
- 2. Candidates are advised not to write on the question paper**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**

### **QUESTION ONE 30 MARKS**

- a) Define Human Computer Interactions (2marks)
- b) A basic goal of HCI is to improve the interactions between users and computers by making computers more usable and receptive to the user's needs. Specifically, describe 5 aspects that HCI is concerned with (10marks)
- c) Describe four benefits of human computer interaction (8marks)
- d) User based evaluation can be conducted either in the laboratory and also in the field(work environment), identify two advantages and two disadvantages of each method of user based evaluation (8 marks)
- e) Differentiate between expert- based and model-based evaluation techniques in HCI (2 marks)

### **QUESTION TWO 20 MARKS**

- a) What is the purpose of interface/systems evaluation (4marks)
- b) Explain four goals of systems evaluation (8marks)
- c) Usability is a combination of several aspects of systems ie ease of learning, high speed of user task performance, low user error rate, subjective user satisfaction, and user retention over time, describe any four of these aspects in HCI (8marks)

### **QUESTION THREE 20 MARKS**

- a) Define user modeling, illustrating its goals (4marks)
- b) Define usability in human computer interactions (2marks)
- c) Explain four design patterns in user modeling (8marks)
- d) Outline any THREE techniques used in user interface design evaluation (6marks)

### **QUESTION FOUR 20 MARKS**

- a) What is windows manager (4marks)
- b) List and explain 5 different types of windows managers (10marks)
- c) Explain three requirements of user support/help in HCI (6marks)

### **QUESTION FIVE 20 MARKS**

- a) What is computer supported collaborative work (2marks)
- b) Explain 5 factors that affect adoption and use of technology in organizations (5marks)
- c) Identify 3 types of computer support collaborative work systems (3marks)
- d) At physical level, HCI concerns the selection of the most appropriate input devices and output devices for a particular interface or task. Determine the best style of interaction, such as direct manipulation, natural language (speech, written input), WIMP (windows, icons, menus, pointers), etc. it also concerns development and improvement of Safety, Utility, Effectiveness, Efficiency, Usability of systems that includes computers. Explain any three of these factors. 10 MARKS