



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF BUSINESS & ECONOMICS**  
**UNIVERSITY EXAMINATION FOR DEGREE OF BACHELOR OF BUSINESS**  
**ADMINISTRATION WITH IT**  
**4<sup>TH</sup> YEAR 1<sup>ST</sup> SEMESTER 2016/2017 ACADEMIC YEAR**  
**BUSIA LEARNING CENTER**  
**SCHOOL BASED**

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**COURSE CODE: SCS 416:**

**COURSE TITLE: HUMAN COMPUTER INTERACTION**

**EXAM VENUE:--**

**STREAM: (BED Arts )**

**DATE:18/12/16**

**EXAM SESSION: 9.00 – 11.00 AM**

**TIME : 2.00 HOURS**

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**Instructions:**

- 1. Answer Question one (Compulsory) and any 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.**
- 4. Question ONE carries 30 marks and the rest 20 Marks each**

## SECTION A

### Answer question one(Compulsary)

#### Question One

- a) Compare and contrast the principles of Visibility and Affordance as used in Human Computer Interaction (4marks)
- b) There are a large number of factors which should be considered in HCI principles. State any three of these factors (6marks)
- c) Cognition is the process by which we gain knowledge. List any five processes that contribute to cognition (5marks)
- d)
  - i) Describe the stages of Norman's model of Interaction (7marks)
  - ii) Explain the design implications of the seven stage model. (8marks)

## SECTION B

### Answer any TWO questions

#### Question Two

- a) The process of interaction design involves four basic activities. Briefly discuss. (4marks)
- b) The focal point of Gestalt theory is the idea of "grouping," or how we tend to interpret a visual field or problem in a certain way. Explain briefly the main factors that determine grouping (4marks)
- c) List the Usability Engineering Lifecycle phases (6marks)
- d) Cognition is the process by which we gain knowledge. Define any four cognitive processes that contribute to cognition (4marks)

#### Question Three

- a) Describe five goals of HCI (5marks)
- b) Discuss five disciplines that have contributed to HCI (5marks)
- c) The human eye has a number of limitations. State any three limitations (3marks)
- d) Explain three characteristics of human beings that are relevant to HCI. (6marks)

#### Question Four

- a) Discuss five approaches to user support (5marks)
- b) Describe six principles of Jakob Nielsen in usability modeling (6marks)
- c) From the context of HCI, Outline four goals of usability (4marks)

- d) List any four factors that affect the design of a system. (5marks)

**Question Five**

- a) There are a large number of factors that affect or influence HCI principles. Briefly discuss any five of these factors. (5marks)
- b) State four goals of carrying out evaluation in human computer interaction (4marks)
- c) Explain how the use of colour in computer screen displays can affect user efficiency (6marks)
- d) Direct manipulation interaction style describes systems that have certain features. Enumerate four features of direct manipulation in HCI (3marks)