****

**GARISSA UNIVERSITY**

**UNIVERSITY EXAMINATION 2019/2020 ACADEMIC YEAR FOUR**

**SECOND SEMESTER EXAMINATION**

**SCHOOL OF INFORMATION SCIENCE AND TECHNOLOGY**

**FOR THE DEGREE OF BACHELOR OF INFORMATION SCIENCE**

**COURSE CODE: COM 415**

**COURSE TITLE: COMPUTER HUMAN INTRACTION**

**EXAMINATION DURATION: 2 HOURS**

**DATE: 17/02/2020 TIME: 2.00-4.00 PM**

**INSTRUCTION TO CANDIDATES**

* **The examination has FIVE (5) questions**
* **Question ONE (1) is COMPULSORY**
* **Choose any other TWO (2) questions from the remaining FOUR (4) questions**
* **Use sketch diagrams to illustrate your answer whenever necessary**
* **Do not carry mobile phones or any other written materials in examination room**
* **Do not write on this paper**

**This paper consists of TWO (2) printed pages *please turn over***

**QUESTION ONE (COMPULSORY)**

1. Define the following terms as used in HCI. **[6 marks]**
2. human-computer interaction
3. usability
4. cognitive psychology
5. Describe the three main components of the HCI. **[6 marks]**
6. Explain FOUR main goals of HCI. **[4 marks]**
7. Discuss FIVE characteristics of a usable system. **[10 marks]**
8. Explain the importance of usability when constructing a computer system. **[4 marks]**

**QUESTION TWO**

1. Discuss the stages involved in human information processing. **[8 marks]**
2. Describe the following concepts in relation to HCI: **[8 marks]**
3. Perception
4. Memory
5. Representation
6. Attention
7. Explain FOUR resemblance icons commonly used in the representation form. **[4 marks]**

**QUESTION THREE**

1. Differentiate between Automatic processes and controlled processes. **[4 marks]**
2. Discuss any four factors that determine the meaningfulness of an interface **[8 marks]**
3. Explain two input and two output devices used in human computer interaction. **[8 marks]**

**QUESTION FOUR**

1. Computers are used to process information. Since the information is needed by people, people and computers have to interact. Different computer applications follow different styles of the interaction, even for the same operations. Discuss five types of interaction styles used in the HCI. **[10 marks]**
2. Define the term metaphor. **[1 mark]**
3. Describe the following metaphors as used in interface design:
4. Verbal metaphors **[3 marks]**
5. Virtual Interface Metaphors **[3 marks]**
6. composite metaphors **[3 marks]**