

**W1-2-60-1-6**

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

# **UNIVERSITY EXAMINATIONS 2014/2015**

**SECOND YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (BBIT)**

**BBT 2212 : HUMAN COMPUTER INTERACTION**

**DATE: AUGUST 2014 TIME: 2 HOURS**

**INSTRUCTIONS: QUESTION ONE IS COMPULSORY**

**QUESTION ONE**

1. Consider any three subject areas that have an input into HCT and explain what their relevance and application might be. [6 marks]
2. Explain the term “chromatic Abervation” and its significance in the design of interface. [4 marks]
3. Describe the Human mental model [6 marks]
4. Explain any six advantages of taking HCI factors into account when designing interface. [6 marks]
5. One of the problems of HCI is to design for human diversity. Describe 4 ways in which humans differ and the general approaches to dealing with diversity. [8 marks]

**QUESTION TWO**

1. Explain any four advantages and 4 disadvantages of using guidelines and standards in interface design. [8 marks]
2. Explain any three sources of guidelines and standards [6 marks]
3. Describe the usability engineering techniques to interface design. [6 marks]

**QUESTION THREE**

1. Human computers interaction can be viewed as an execution –evaluation cycle. Describe the seven phases of this cycle. [7marks]
2. Related to this cycle are the “Gulf of evaluation” and “Gulf of evaluation” Describe what you understand by the gulf and their relevance to interface design. [6 marks]
3. Identify three techniques that can be used to gather information for task analysis. [3 marks]
4. Using an example, describe the “therarchical Task Analysis” HTA process. [4 marks]

**QUESTION FOUR**

1. Explain any four characteristics of Direct manipulation interface (DMI) [4 marks]
2. Discuss four advantages of Direct manipulation interface. [4 marks]
3. Explain any two disadvantages of direct manipulation interface. [4 marks]
4. Using examples, explain four ways in which icons can be categorized depending on how they show what they represent. [4 marks]
5. Explain any two advantages and any two disadvantages of using icons at the interface. [2 marks]
6. Describe one example of a metaphor in graphical user interface. [2 marks]

**QUESTION FIVE**

Heuristic evaluation is commonly used in industry and commerce as a convenient

and useful way of determining the usability of products. It is also applicable in the

design of interfaces.

1. Briefly explain what heuristic evaluation is and how it is used. [8 marks]
2. Discuss the main advantages of Heuristics evaluation [6 marks]
3. Discuss the disadvantages /limitations of heuristic evaluation. [6 marks]