TECHNICAL UNIVERSITY OF MOMBASA

INSTITUTE OF COMPUTING AND INFORMATICS

Select department

UNIVERSITY EXAMINATION FOR:

BACHELOR OF TECHNOLOGY IN INFORMATION TECHNOLOGY:

BTIT SEP 2013 Y3S2

EIT 4307: HUMAN COMPUTER INTERACTION

END OF SEMESTER EXAMINATION

SERIES:APRIL2016

TIME:2HOURS

DATE:Pick DateMay2016

<u>**Instructions to Candidates**</u>
You should have the following for this examination
-Answer Booklet, examination pass and student ID
This paper consists of Choose No questions. AttemptChoose instruction.
Do not write on the question paper.

Question ONE

a. Identify four consequences of using a bad interface.   [4 marks]

b. Describe five stages of an interactive system design.   [5 marks]

c. Define the term cognitive walkthrough as used in interface design and identify four steps that can guide this process.   [8 marks]

d. Explain cognitive walkthrough in terms of preparation phase and evaluation phase.   [8 mark]

e. Describe five components of color as used in Graphical interface Design   [5 marks]

Question TWO

a. Define the term Human-computer interaction   [2 marks]

b. Explain the term Direct Manipulation in the context of interface design   [2 marks]

c. Describe four merits of direct manipulation interaction style   [6 marks]

d. Explain how the following factors can be achieved in interactive interface design.   [10 marks]

    i.   Striving for Consistency
    ii.   Catering to Universal Usability
    iii.   Offering Informative feedback
    iv.   Design Dialogs to yield closure
    v.   Permit easy reversal of actions

Question THREE

a) Define the term cognition in the context of HCI   [2 marks]

b) Explain three main activities of the long-term memory   [3 marks]

c) Describe how information is stored into human memory   [4 marks]
d) Identify five constructs that explain **Gestalt Laws of Perception**.   [5 marks]
e)Describe GOMs model of user interaction   [6 marks]

Question FOUR

a.   Define the term ergonomics as used in interface design.   [2 marks]

b.   Controls and displays should be grouped logically to allow rapid access by the user. List three methods of arranging controls in interface design.   [3marks]

c.   Describe five merits of command line interface as an interaction style   [5 marks]

d.   Differentiate between Normans execution and evaluation stages of human computer interaction design
                                                                                        [6 marks]

e.   Identify four levels of abstractions for the user proposed by Norman.   [4 marks]

Question FIVE

CASE STUDY: HEURISTICT EVALUATION OF GOOGLE MAPS IN GOGGLE EARTH

Google Maps is a well-known free service provided by Google worldwide. It's not just a bunch of maps, it includes multiple layers: roads, terrain, satellite, street view, traffic etc. It also integrates user ratings and pictures with locations and businesses in the area. Assuming that all of us have used Google maps at some point in life. Describe how you would use Nielsen's Ten Heuristics to evaluate Google Maps.   [20 marks]