



TECHNICAL UNIVERISTY OF MOMBASA

Faculty of Engineering & Technology

UNIVERSITY EXAMINATION FOR:
BACHELOR OF SCIENCE IN INFORMATION COMMUNICATION
TECHNOLOGY
(BSIT 11M – Y4 S1)

BIT 2305: HUMAN COMPUTER INTERFACE

END OF SEMESTER EXAMINATION

SERIES: APRIL 2014

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consists of **FIVE** questions.

Attempt question **ONE (COMPULSORY)** and any other **TWO** questions

Maximum marks for each part of a question are as shown

This paper consists of **TWO** printed pages

Question One (Compulsory)

- a) Distinguish between human computer interface and human computer interaction. **(3 marks)**
- b) Outline the FIVE factors that have led to spectacular growth of HCL **(5 marks)**
- c) Define the term User Interface Management System and give two examples. **(4 marks)**
- d) List FIVE HCI technology factors from the human side. **(5 marks)**
- e) Describe the FOUR main design principles of good direct manipulation interface design. **(6 marks)**
- f) Explain the term cognitive Walkthrough. Give an example. **(3 marks)**

- g) Describe the term learning and list its FOUR basic tasks. (5 marks)

Question Two

- a) Discuss the reasons behind slow technology before 1970s development of human computer interaction. (10 marks)
- b) Describe the THREE principles of user interface design. (6 marks)
- c) List FIVE classic interaction styles for user centered design. (4 marks)

Question Three

- a) Define the term Direct Manipulation in the context of interface design. (2 marks)
- b) List the EIGHT golden rules of user interface design for interactive systems. (8 marks)
- c) State FOUR pitfalls of an inconsistent interface. (4 marks)
- d) Describe the GOM's model of user interaction. (6 marks)

Question Four

- a) Identify THREE perceptual modalities that can influence interface design. (3 marks)
- b) Outline SIX principles which enable us to perceive the patterns of stimuli. (6 marks)
- c) Identify FOUR stages of human information processing. (5 marks)
- d) Describe FOUR design factors for meaningful of icons. (6 marks)

Question Five

- a) List FIVE objectives of evaluating a User Interface Design. (5 marks)
- b) Describe the human computer interface evaluation life cycle. (5 marks)
- c) Outline Nielsen's 10 usability heuristics for user interface evaluation (10 marks)