



TECHNICAL UNIVERISTRY OF MOMBASA

# Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATIONS FOR DEGREE IN:  
BACHELOR OF TECHNOLOGY IN INFORMATION COMMUNICAITON  
TECHNOLOGY (BTIT 12J)

**BIT 2305: HUMAN COMPUTER INTERFACE**

END OF SEMESTER EXAMINATION

**SERIES: APRIL 2015**

**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

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**Question One (Compulsory)**

- a) Distinguish between human computer interface and human computer interaction **(3 marks)**
- b) Outline **THREE** factors that have led to spectacular growth of HCL **(6 marks)**
- c) Define the term “User Interface Management System” and give **TWO** examples **(3 marks)**
- d) List **FIVE** HCL technology factors from the human side **(5 marks)**
- e) Describe **FOUR** main principles of good direct manipulation interface design **(6 marks)**

- f) Explain the term “cognitive walk through” (2 marks)
- g) Describe the term Exploratory learning and list its four basic tasks (5 marks)

**Question Two**

- a) Discuss the reason behind rapid development of human computer interaction technology (10 marks)
- b) Describe 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 GOMS model of user interaction (6 marks)

**Question Four**

- a) Identify THREE perceptual medalist that can influence interface design (3 marks)
- b) Outline SIX principles which enable us to perceive the patterns of stimuli (6 marks)
- c) Identify the 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 interface evaluation life cycle (5 marks)
- c) Outline Nielsen’s 10 usability heuristics for user interface evaluation (10 marks)