



TECHNICAL UNIVERISTY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY
CERTIFICATE IN INFORMATION TECHNOLOGY & MAINTENANCE
(CICM 13S)

EIT 1102: FUNDAMENTALS OF COMPUTER & OPERATING SYSTEM

END OF SEMESTER EXAMINATION
SERIES: DECEMBER 2013
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** and any other **TWO** questions
Maximum marks for each part of a question are as shown
This paper consists of **THREE** printed pages

Question One (Compulsory)

- a) Differentiate between a network and intelligent terminal **(3 marks)**
- b) Discuss the functions of the following devices **(4 marks)**
- (i) Image scanner
 - (ii) Fax machine
 - (iii) Bar code readers
 - (iv) Character and mark recognition devices
- c) State TWO devices used for voice input **(1 mark)**
- d) Differentiate between the TWO main types of computer storage **(4 marks)**
- e) Describe the function of the following registers: **(8 marks)**
- (i) Status
 - (ii) Control
 - (iii) Data-in
 - (iv) Data-out
- f) Explain the use of:: **(6 marks)**
- (i) Active partition
 - (ii) Primary partition
 - (iii) Extended partition
- g) State and explain TWO instances when one will be required to format a hard disk **(2 marks)**

Question Two

- a) Discuss THREE types of character and mark recognition or scanners **(6 marks)**
- b) Differentiate between RAM and ROM **(4 marks)**
- c) State and explain THREE types of RAM and THREE types of ROM **(6 marks)**
- d) List the draw backs of the first generation computers **(4 marks)**

Question Three

- a) State and explain the function of the components of the CPU **(8 marks)**
- b) Discuss the following start modes: **(8 marks)**
- (i) Safe mode
 - (ii) Safe mode with networking support
 - (iii) Safe mode with command prompt
 - (iv) Last known good configuration
- c) The following file name extensions are commonly used state the format of data information they represent:
- doc

- jpg
- ppt
- zip

Question Four

- a) State and explain FOUR factors to consider when selecting an operating system **(4 marks)**
- b) Discuss THREE classifications of computer **(8 marks)**
- c) State TWO examples of system and TWO application software **(2 marks)**
- d) State TWO examples of system and TWO application software **(2 marks)**
- e) Give the difference between CD-R and DVD-R **(2 marks)**
- f) State TWO devices used for audio input **(2 marks)**

Question Five

- a) Discuss the data processing cycle **(4 marks)**
- b) Explain THREE advantages of flash memory storage. **(6 marks)**
- c) Give TWO examples of impact printers **(2 marks)**
- d) Discuss computer hardware under the following subtopics **(8 marks)**
 - (i) Input
 - (ii) Output
 - (iii) Storage
 - (iv) Processor