



TECHNICAL UNIVERISTRY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR DEGREE IN:
BACHELOR OF TECHNOLOGY IN INFORMATION TECHNOLOGY
(BTIT14S J-FT & BSIT 14SJ-FT)

EIT 4103/BIT 2223: PC HARDWARE & TROUBLE SHOOTING

INSTALLATION & CUSTOMIZATION

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 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) Explain the meaning of the following terms as used with hard disk drives: **(8 marks)**
- (i) Sectors
 - (ii) Tracks
 - (iii) Clusters
 - (iv) Cylinders
- b) State the likely cause and suggest a solution for the following CMOS errors **(6 marks)**
- (i) CMOS Display Mismatch
 - (ii) CMOS Memory Size Mismatch
 - (iii) CMOS Options not set
- c) Explain the **FOUR** situations when one has to perform a clean installation of an operating system **(4 marks)**
- d) Explain the steps one needs to take to perform the following tasks: **(6 marks)**
- (i) Detect hardware conflicts
 - (ii) Un-install an application software
 - (iii) Close a non responsive application

- e) Explain the THREE systems resource and state their purpose (6 marks)

Question Two

- a) (i) Explain the purpose of a preventive maintenance program (2 marks)
(ii) List any FOUR benefits of a preventive maintenance (4 marks)
(iii) Explain any FOUR activities that are performed during preventive maintenance (4 marks)
- b) A computer is powered and after it performs POST check it displays an error message “HDD Failure”
(i) List TWO possible causes of the error message (2 marks)
(ii) For each cause listed above in (b) (i) above provide a solution to resolve the error situation (4 marks)
- c) Describe the changes that need to be done in the Bios settings to make a CD bootable (4 marks)

Question Three

- a) Distinguish between utility program and operating system software (4 marks)
- b) State the minimum system requirements for installing an application software of your choice (6 marks)
- c) Draw a memory hierarchy of all the types of memory found in computer systems based on their varying access times. (6 marks)
- d) Explain FOUR main features offered by NTFS (4 marks)

Question Four

- a) Describe the function of the following serial ports:
(i) PS/2
(ii) VGA
(iii) USB
(iv) COM1 (8 marks)
- b) List and explain FOUR safety precautions one should put in place to prevent a computer virus infection (8 marks)
- c) Differentiate between the following utilities:
(i) Defrag and scandisk
(ii) Format and Fdisk (4 marks)

Question Five

- a) Explain the term upgrade with reference to:
(i) Computer Hardware
(ii) Computer Software (4 marks)
- b) Explain the relevance of the following windows start option (6 marks)
(i) Safe mode
(ii) Safe mode with command prompt
(iii) Last known configuration (6 marks)

c) Describe the FOUR characteristics of modern operating system

(8 marks)

d) Explain the meaning of the term restore point

(2 marks)