



THE TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION
TECHNOLOGY

UNIVERSITY EXAMINATION FOR:
BACHELOR OF SCIENCE & BACHELOR OF TECHNOLOGY IN INFORMATION
TECHNOLOGY
(BSc. IT S12/J-FT & BTech. IT S12/J-FT)

BIT 2223: INSTALLATION & CUSTOMIZATION
EIT 4203: PC HARDWARE & TROUBLESHOOTING

SPECIAL/SUPPLEMENTARY EXAMINATION
SERIES: FEBRUARY 2013
TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consist of **FIVE** questions

Answer question **ONE (COMPULSORY)** 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) Explain the following terms:

- (i) Desktop customization
- (ii) Control panel
- (iii) Device manager
- (iv) Applet
- (v) Diagnostic tool

(10 marks)

b) Explain the difference between the following terms:

- (i) "Disk Partitioning" and "Disk Formatting"

- (ii) "Device drivers" and "System Utilities"
- (iii) "Male ports" and "Female ports"
- (iv) "Network Operating System" and "Desktop Operating System" **(16 marks)**

c) State any **FOUR** functions of an operating system. **(4 marks)**

Question Two

- a) Computer hardware can be categorized into central processing unit, input output and storage devices. Using suitable examples, explain each one of these categories. **(16 marks)**
- b) Explain the difference between "Random Access Memory" and Read Only Memory" **(4 marks)**

Question Three

- a) Operating systems have minimum hardware requirements that must be met for the operating system to install and function. A customer to buy a brand new laptop which does not have an operating system. Explain any **FIVE** hardware requirements he needs to check before buying it. **(10 marks)**
- b) Explain the following concepts are used in operating system.
 - (i) Multiuser
 - (ii) Multitasking
 - (iii) Multiprocessing
 - (iv) Multithreading
 - (v) Single user
- c) Processing the F.8 key during the boot process opens the Windows Advanced Startup Options menu, which allows you to select how to boot windows different modes.
 - (i) Explain the term "boot process: **(2 marks)**
 - (ii) Explain the following windows startup option modes.
 - a) Safe mode
 - b) Safe mode with Networking support
 - c) Safe mode with command prompt
 - d) Last known good configuration

Question Four

- a) Before you begin troubleshooting problems, always follow the necessary precautions to protect data on a computer. Explain the term "Data Backup" **(2 marks)**
- b) Explain following types of backups:
 - (i) Incremental backup
 - (ii) Differential backup
 - (iii) Copy backup **(6 marks)**
- c) Explain the functions of the following in system maintenance.
 - (i) Windows update
 - (ii) Antivirus
 - (iii) Defragmenting hard disk. **(6 marks)**
- d) Operating system problems can be attributed to hardware, application or configuration issues. Explain the terms:
 - (i) Troubleshooting
 - (ii) Hardware faults

(iii) Configuration problems.

(6 marks)

Question Five

- a) Virtually all computers provide a mechanism by which other modules (I/O, memory) may interrupt the normal processing of the processor.
- (i) Explain the term “Interrupt” as used in resolving conflicts within a computer system.
 - (ii) Explain any **FOUR** types of interrupts. **(10 marks)**
- b) Although resource conflicts are less common on newer pcs, they are also more difficult to correct when they do occur. Explain the steps you would take to resolve resource conflicts. **(10 marks)**