THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

A. M. E. C. E. A

MAIN EXAMINATION

JANUARY – APRIL 2015 TRIMESTER

FACULTY OF SCIENCE

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

REGULAR PROGRAMME

CMT 101: HARDWARE AND SOFTWARE MAINTANCE

Date: APRIL 2015	**Duration: 2 Hours**
Instructions: Answer Question ONE and any other TWO Questions.	

Q1.　a)　Provide a brief description of the following terminologies as used in hardware software maintenance.

(3 marks)

　　　i)　North Bridge
　　　ii)　Jumper
　　　iii)　Troubleshoot
　　　iv)　Over clocking
　　　v)　Registry

　　b)　Briefly describe the functions of device manager is a windows operating system platform.

(5 marks)

　　c)　List the TWO main types of interfaces that are used with hard disks.

(2 marks)

　　d)　List THREE internal Ms-Dos commands and provide an example of how they are used.

(3 marks)

　　e)　Briefly describe the assembly procedure of the following hardware components.

(6 marks)

　　　i)　Motherboard
　　　ii)　Memory
　　　iii)　Hard Disk

　　f)　Briefly describe the use of control panel in a windows environment.

(4 marks)

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Q2. a) Briefly describe the power on self test (POST) Process.

(5 marks)

b) Identify FIVE factors to be considered when choosing an operating system for your computer.

(5 marks)

c) Describe the procedure for installing a processor into your computer clearly indicating the precautions to be put in place.

(5 marks)

d) List any FIVE antivirns programs common in the market today.

(5 marks)

Q3. a) Identify the key features of a data recovery tools that is commonly available in the market today.

(5 marks)

b) Describe how you would install a network card into your computer system.

(5 marks)

c) Describe the use of the following tools.

(10 marks)

i) Scan Disk
ii) FDISK
iii) CHKDSK
iv) Defrag
v) Backup

Q4. a) Explain the relevance of the following in computer system assembly.

(10 marks)

i) Form factor
ii) Compatibility
iii) Zero insertion force (ZIF)
iv) Interface
v) Back Panel

b) List and explain THREE cooling ways that can be used in a computer system.

(6 marks)

c) Using a valid example explain the use of a batch file.

(4 marks)

Q5. a) In each of the following situations, identify a probable problem and a solution.

(3 marks)

i) Nothing shows on the screen even when the machine in on.
ii) Computer will not switch on.
iii) Non system disk message displays on the screen.
iv) Missing operating system error displays on screen.
v) Your printer cannot print.

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b) Explain the main reasons for assembling your own PC.

(5 marks)

c) Describe the procedure for installing windows 2008 into your computer system.

(5 marks)

END

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