TECHNICAL UNIVERSITY OF MOMBASA

INSTITUTE OF COMPUTING AND INFORMATICS

Select department

UNIVERSITY EXAMINATION FOR:

BTIT/SEP2017/J-FT/BSIT/SEP2017/J-FT

BIT 2223/CIT 4101: INSTALLATION & CUSTOMIZATION

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: SEPTEMBER 2018

TIME: 2HOURS

DATE: Sep 2018

Instructions to Candidates
You should have the following for this examination
-Answer Booklet, examination pass and student ID
This paper consists of Choose No questions. AttemptChoose instruction.
Do not write on the question paper.

Question ONE

a) The BIOS consists of software that interfaces the hardware to the OS. The BIOS is unique comparedto normal software in that some of it is preloaded into read-only memory (or ROM), and some isloaded into RAM from disk. The BIOS in a running PC is loaded during the system startup from three possible sources, List and describe the THREE sources

   [6 Marks]

b) The motherboard ROM contains a collection of programs embedded in one or more chips, dependingon the design of your computer. That collection of programs is the first thing loaded when you startyour computer, even before the OS. Simply put, the BIOS in most PCs has four main functions, Outline the FOUR main functions   **[8 Marks]**

c) Explain the functions or description of the following devices

   i.   ROM Hardware   **[2 Marks]**

   ii. ROM Shadowing   **[3 Marks]**

iii.   RAM   **[2 Marks]**

iv.   Flash BIOS   **[3 Marks]**

d) Explain some SIX of the prerequisites that you must consider before Operating system installation

[6 Marks]

QUESTION 2(20 Marks)

a) List the four main types of ROM chips that have been used in PCs so far **[4 Marks]**

b) Some PC motherboards ROM do scan the various card slots, looking for adapter cards with ROMs on them. If a card is found with a ROM onit, the ROM is executed during the initial system startup/boot phase, before the system begins loading theOS from the hard disk. List FOUR cards (adapter boards) that always have ROM onboard**[4 Marks]**

c) Many systems use additional expansion cards for networking, sound, or other functions. These cardsare plugged in to the bus slots present on the motherboard. To install these cards, List any FOUR steps to follow   **[4 Marks]**

d) List FOUR different strategies for carrying out system backup   **[4 Marks]**

i)   Describe the strategies listed above   **[4 Marks]**

QUESTION 3(20 Marks)

a) To run the BIOS Setup and configure the system, Outline any FIVE steps you are likely to follow

[5 **Marks**]

b) The power-on self test (POST) program normally on error provide three types of warnings that are sent to an I/O port address. List and describe the THREE types

[6 Marks]

c) Outline the functions/description of the following parts of an hard disk

i)   Tracks   **[3 Marks]**

ii)   Cylinder   **[3 Marks]**

iii)   Clusters   **[3 Marks]**

QUESTION 4(20 Marks)

a) When the OS installation is complete, you should restart the system and it should boot from thedrive where the OS was installed. If any problems exist, List SIX basic items to check

[6 Marks]

b) After you have physically installed the hard disk and configured CMOS Setup to recognize it, the drive must still be prepared before it can store data. This process requires three steps listed below. Describe each of the steps below.

    i)   Low-level formatting   **[3 Marks]**

    ii)   Partitioning   **[3 Marks]**

    iii)   Logical formatting   **[3 Marks]**

c) There are several types of Operating systems installation models available to work with, Describe any FIVE models   **[5 Marks]**

QUESTION 5(20 Marks)

a) List and describe FIVE types of diagnosticsoftware covered for PC diagnostics procedure

[5 Marks]

b) List any FIVE basic tools that should be in every PC troubleshooter's toolbox**[5 Marks]**

c) Outline any FIVE general troubleshooting checklist for processor-related PC problems.

[5 Marks]

d) Provide Possible solutions to the checklist provided above   **[5 Marks]**