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CHUKA



UNIVERSITY

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UNIVERSITY EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE AWARD OF CERTIFICATE  
IN COMPUTER SCIENCE

COSC 00106: INSTALLATION AND CUSTOMIZATION

STREAMS: CERT. COMPSCI

TIME: 2 HOURS

DAY/DATE: TUESDAY 09/4/2019

11.30 AM – 1.30 P.M

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**INSTRUCTIONS:**

- Answer question **ONE** and **TWO** other questions
- Do not write anything on the question paper
- This is a **closed book exam**, No reference materials are allowed in the examination room
- There will be **NO** use of mobile phones or any other unauthorized materials
- Write your answers legibly and use your time wisely.
- Marks are awarded for clear and concise answers.

**QUESTION ONE (30 Marks)**

a. Define each of the following terms as relates preparation of a hard disk for installation of an operating system: (4 Marks)

- i. Volume
- ii. File System
- iii. Partitioning
- iv. Formatting

b. John approaches you with his personal laptop computer and asks you to install the Microsoft Office Suite he has bought. On booting the computer you realize John bought a laptop without any operating system loaded. Explain to John why he can't install Microsoft Office without installing the operating system first.

(5 Marks)

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- c. Explain the function of **'grub'** in the installation of Linux and Windows operating systems. (3 Marks)
- d. Explain the difference between a 32-bit computer and a 64-bit computer (4 Marks)
- e. Contrast **dual-boot setup** and **virtualization setup** as it relates installation of Windows and Linux operating systems on a computer. (4 Marks)
- f. Explain the role of a Disk Defragmenter program on a Windows Operating System (2 Marks)
- g. Three months after selling a laptop computer to Jane, she comes back to you complaining that the laptop seems to be losing charge sooner than it used to when she bought it. Explain to her THREE steps she can take to slow down the aging process of her laptop's battery. (6 Marks)
- h. Explain the meaning of the term **"Plug and Play"** (2 Marks)

### SECTION B (Answer any TWO questions)

#### QUESTION TWO (20 Marks)

- a) Discuss FIVE major differences between LINUX and Widows Operating Systems. (10 Marks)
- b) Describe in detail the steps you would take to perform a clean install of Windows operating system on a laptop computer. (10 Marks)

#### QUESTION THREE (20 Marks)

- a) Define the term Device Driver. (4 Marks)
- b) Explain how you can use the Device Manager on Windows 7 to roll back, disable or uninstall Device Drivers. (6 Marks)
- c) Describe how you can use the 'msconfig' utility to modify startup programs. (4 Marks)
- d) Describe THREE reasons why if you have an SSD drive in your computer, you should NOT defragment your hard disk. (6 Marks)

#### QUESTION FOUR (20 Marks)

- a.) Define the term port with regards to computer hardware (2 Marks)
- b.) Using FOUR examples in each, discuss the TWO major types of ports. (8 Marks)

- c.) Discuss the roles of BIOS in performing a clean installation of an operating system.  
(10 Marks)

**QUESTION FIVE (20 Marks)**

- a.) Explain the steps you would undertake in order to create a new disk partition on Windows. (5 Marks)
- b.) State and explain FIVE features that differentiate the NTFS and FAT file systems. (5 Marks)
- c.) List FOUR types of cables used to connect exterior devices to the system unit. (4 Marks)
- d.) Explain the role of the following graphical components in Operating Systems. (6 Marks)
- i. Desktop
  - ii. Wallpaper
  - iii. Screensaver
  - iv. Icon
  - v. Pointer
  - vi. Taskbar
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