



MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)
University Examinations for 2015/2016 Academic Year

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

FIRST SEMESTER EXAMINATION FOR DIPLOMA IN INFORMATION COMMUNICATION AND TECHNOLOGY

DIT 105: INSTALLATION AND CONFIGURATION OF COMPUTER SYSTEMS

Date: 5/8/2016

Time: 8:30 – 10:30 AM

INSTRUCTIONS

Answer Question One and Any Other Two Questions

QUESTION ONE (COMPULSORY)

- a) Differentiate between the following pair of terms in relation to computer systems:
 - i. Serial and Parallel connectors;
 - ii. BIOS and CMOS;
 - iii. SIMM and DIMM. (6 marks)
- b) Explain the relationship between *computer hardware* and *computer software*. (4 marks)
- c) The computer system has registers in the processor chip, describe **three** types of registers in the chip. (6 marks)
- d) Assuming you work as a computer expert in Machakos University and you have been instructed to perform an installation of Microsoft Windows 7 on the computer laboratory machines using the Microsoft Windows 7 DVD. Explain the steps you would take to perform the task. (8 marks)

- e) Describe the following booting modes:
 - i. Normal boot;
 - ii. Safe mode. (4 marks)
- f) Outline **two** symptoms that a CMOS battery may be running low. (2 marks)

QUESTION TWO

- a) Describe **three** reasons why the USB has become a very popular interface to computers for many peripheral devices. (6 marks)
- b) Assuming that you have a computer system which has a BIOS password, Outline the **two** possible ways of clearing the CMOS settings of the computer system to remove the password. (4 marks)
- c) Describe the factors affecting processor performance and motherboards. (10 marks)

QUESTION THREE

- a) Describe the classification of connectors/ports used in computer systems. (8 marks)
- b) Explain the following components of a computer mother board:
 - i) South bridge chipset;
 - ii) PCI slots. (4 marks)
- c) Describe the factors to consider when selecting software to install on a computer system. (8 marks)

QUESTION FOUR

- a) Describe the **six** steps involved in effective troubleshooting to diagnose and fix computer problems. (12 marks)
- b) Describe the following hard disk management utilities:
 - i) Disk defragmentation
 - ii) ScanDisk
 - iii) Disk Cleanup. (6 marks)
- c) Outline four devices tested by POST. (2 marks)

QUESTION FIVE

- a) Explain how data is organized on a hard drive in reference to the hard disk structure. (6 marks)
- b) Assuming your institution has procured new machines and they have requested your advice on installation. Outline **five** environmental factors to consider while choosing the location or area for installing the computer systems. (5 marks)
- c) Outline **four** symptoms that might suggest that u don't have enough memory and may require you upgrade. (4 marks)
- d) Outline the precautions to follow when installing new memory on the motherboard. (5 marks)