



*(University of Choice)*

# **MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**(MMUST)**

**MAIN CAMPUS**

**UNIVERSITY EXAMINATIONS**

**2021/2022 ACADEMIC YEAR**

**SECOND YEAR SECOND SEMESTER EXAMINATIONS  
FOR THE DIPLOMA**

**IN**

**INFORMATION TECHNOLOGY**

**COURSE CODE: DIT 057**

**COURSE TITLE: COMPUTER SYSTEM MAINTENANCE**

**DATE: 25/04/2022      TIME: 3:00 - 5:00PM**

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## **INSTRUCTIONS TO CANDIDATES**

Attempt Question ONE (compulsory) and any other TWO questions

**TIME: 1 HOUR 30 MINS**

MMUST observes ZERO tolerance to examination cheating

### Question One (24 marks)

- a. Explain the term Blue Screen of Death. Explain the two most likely causes of this BSOD. (4 marks)
- b. One of the activities carried out on a computer during maintenance is dust control and removal. Outline two main effects of dust on the computer system (2 Marks)  
c. List any three features of the USB port. (3 marks)
- d. From the device manger, explain how one can tell that there is a hardware compatibility issue with the programs installed. State the remedies to the issue. (4 marks)
- e. Clearly distinguish between SRAM and DRAM. (2 marks)
- f. After cleaning your motherboard with a dust remover machine like the blower, you will need to clean it further by applying a certain liquid to prevent short circuiting. Explain the composition of this liquid. Give reasons why it is used instead of water. (4 marks)
- g. During installation of an operating system, you will have to enter into the BIOS. Describe how you would open the BIOS. Discuss the important settings that you need to configure in the BIOS before installation of the operating system. (3 marks)

### Question Two (18 Marks)

- a. Outline the sequence of functions carried out by POST from the time the electrical signals are sent to the CPU to full load of the Operating system.(4 marks)
- b. POST is an important feature found on all motherboards, since it helps check the integrity of computer hardware and gives feedback through error codes. Each computer brand has its own sequence. Dell computer is an example with POST feature. List any six POST Audio Error Codes and their meaning during boot sequence in Dell computers. (6 marks)
- c. State the importance of CMOS chip and explain what happens when the CMOS battery low. (4 marks)
- d. You are suspecting that the power supply unit of your computer is not functioning because your computer is not powering on. Describe how you can ascertain this. (4 marks)

### Question Three (18 Marks)

- a. Hardware conflicts can cause serious problems to computer system.

- i. State the causes of hardware conflicts **(2 marks)**
  - ii. Discuss how you would be able to detect a hardware conflict in windows OS **(5 marks)**
- b. Discuss the principle duties of the BIOS During POST in boot up process of a computer **(5 marks)**
  - c. Explain what is meant by a Disaster Recovery Plan. Give reasons why it is important. **(4marks)**
  - d. Distinguish between firewall program and antivirus program. **(2 marks)**

#### **Question Four (18 Marks)**

- a. Your organization has been hit by fire due to electricity faults and burnt all the computers in the lab. You are advised to carry out a disaster recovery plan to mitigate against future disasters. Describe steps involved in Disaster Recovery Plan. Give reasons why it is important. **(6 marks)**
- b. Describe any three classifications of computer ports **(6 marks)**
- c. Describe the term **computer port** and explain physical characteristics of **D-shell** connector and **DIN** connector. **(6 marks)**

#### **Question Five (18 Marks)**

- a. During the boot process, how does the operating system know which services it needs to run at different run levels? Explain how it determines the order in which these services are started **(4 marks)**
- b. State four importance of computer maintenance **(4 marks)**
- c. Explain what is meant by CMOS chip. Explain why it is important and what happens when the CMOS battery low. **(4 marks)**
- d. State the functions of device drivers **(2 marks)**
- e. Explain the difference between the following data backup mechanism citing their advantages and disadvantages. **(4 marks)**
  - i. Incremental backup
  - ii. Differential backup