



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2022/2023 ACADEMIC YEAR**

**FIRST YEAR FIRST SEMESTER EXAMINATIONS
FOR THE DIPLOMA
IN
INFORMATION TECHNOLOGY**

COURSE CODE: DIT 057

COURSE TITLE: COMPUTER SYSTEM MAINTENANCE

DATE: 20/12/2022

TIME: 09:00-11:00AM

INSTRUCTIONS TO CANDIDATES

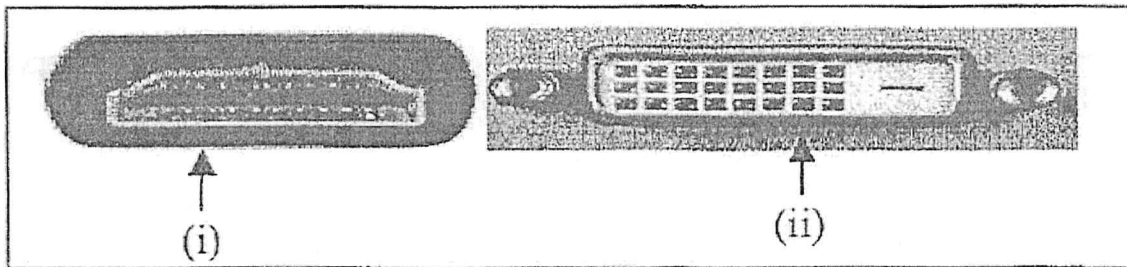
Attempt Question ONE (compulsory) and any other TWO questions

TIME: 1 HOUR 30 MINS

MMUST observes ZERO tolerance to examination cheating

Question ONE (24 marks)

- a. The figure below shows ports used to connect a computer monitor. Identify the ports labelled (i) and (ii). (4 marks)



- b. Outline **five** factors that should be considered when selecting a troubleshooting technique. (5 marks)
- c. Explain **three** circumstances under which an organization could consider disposing computers. (6 marks)
- d. List **four** types of application software used in computers. (4 marks)
- e. Elizabeth noted that some of her documents in her computer were encrypted and she was forced to pay a certain fee through Internet to decrypt her files.
- Identify this type of attack. (1 marks)
 - Outline four possible causes for the attack identified in (i). (4 marks)

Question TWO (18 Marks)

- a. Churchil noted an email that appeared as if it was sent by his bank requesting her o confirm her account details.
- Identify the type of attack depicted in the email (1 mark)
 - Outline four security measures that she could use to mitigate the type of attack identified in (i) (4 marks)
- b. Frank was advised by his friends to stop placing his laptop on the bed while using it. Explain two possible effects on the laptop that could have informed this advice (4 marks)
- c. It is advisable that before you open inside the computer system you first need to unplug all the cables from the system unit, especially the power cables. Besides you need to press and hold the power button for 5 seconds. Explain why these precautions are important (5 marks)
- d. A lecturer instructed students to store their document on a recordable compact disk (CD-R) and not in a flash memory. Explain two reasons that could justify the instruction to students (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. Mithy was required to replace a faulty RAM chip in a computer. Outline four precautions that she could observe in order to accomplish the task. **(4 marks)**
- b. Computer technicians experience several challenges when carrying out routine maintenance. Outline three challenges they could experience. **(3 marks)**
- c. Describe each of the following types of hard disk interfaces:
 - i. IDE; **(2 marks)**
 - ii. SATA. **(2 marks)**
- d. Explain the function of each of the following keys during Power On Self Test (POST) process in a computer system.
 - i. Esc **(3 marks)**
 - ii. F10 **(4 marks)**

Question FIVE (18 Marks)

- a. Describe two advantage of the invention of the USB port. **(4 marks)**
- b. State four importance of data backup **(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