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: ITC 014

COURSE TITLE: COMPUTER SYSTEM MAINTENANCE

DATE: 13/12/2022 **TIME:** 02:00-04:00PM

INSTRUCTIONS TO CANDIDATES

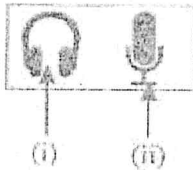Answer **Question ONE (1)** and any other **TWO**

TIME: 1 Hour 30 Minutes

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 4 Printed Pages. Please Turn Over.

Question ONE (24 marks)

a. Name ant two classifications of computer ports **(2 marks)**
b. Outline four activities that should be carried out during routine computer maintenance **(4 marks)**
c. Explain two circumstances under which organizations may carry out preventive computer maintenance **(4 marks)**
d. Different malware have different impacts on computer systems. Distinguish between ransom ware and a virus **(4 marks)**
e. Patrick was given a computer which could not power on. He decided to test the power supply unit.
   i.   Explain the procedure he would use to troubleshoot **(4 marks)**
   ii.   Explain how the results from (i) above would be interpreted **(2 marks)**
f. The below shows signs that represent input/output ports of a computer system. Outline the function of the signs labeled (i) and (ii) **(4 marks)**

Question TWO (18 marks)

a. A technician was setting CMOS for a new computer
   i.   Write the acronym CMOS in full **(1 mark)**
   ii.   Outline four boot priority options that he could use **(4 marks)**
b. John was required to back up the data in his company's computer system
   i.   Outline any three types of backup strategies that he could use **(3 marks)**
   ii.   Explain two factors that he should consider while choosing a backup strategy **(4 marks)**
c. Patel chose to use external hard disk to store her pictures and videos. Outline three reasons for her choice. **(3 marks)**
d. Outline three signs that may show that your computer is infected by a **malware.** **(3 Marks)**

Question THREE (18 marks)

a. Job was required to list functions of computer's BIOS during a job interview. Outline four functions that he could have listed **(4 marks)**

b. Explain each of the following types of discs as used in computer systems
  i. Restore disk **(2 marks)**
  ii. Installation disks **(2 marks)**

c. Patel wanted to replace a 2 GB Random Access Memory (RAM) chip with a 4GB RAM chip. Explain two reasons for shutting down the computer before she replaced the RAM chip. **(4 marks)**

d. List any three configurations that can be made in the BIOS　　　**(3 marks)**

e. Outline any three features of the USB port.　　　**(3 marks)**

Question FOUR (18 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. Explain two main effects of dust on the computer system.
(4 Marks)

c. Peter was given a laptop having a newly installed graphics card. However the card was not working properly. From the device manger, explain how one can tell that there is a hardware compatibility issue with the hardware device installed. State the remedies to the issue. **(4 marks)**

d. 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)**

Question FIVE (18 Marks)

a. One way of maintaining software is through updates. Discuss the following categories of updates stating how and when they are used.

    i.   Automatic Updates   **(4 Marks)**

    ii.   Automatic Alerts for Updates   **(4 Marks)**

    iii.   Manual Updating.   **(4 Marks)**

b. You have been given a laptop by a client who claims he cannot connect to the internet and he cannot fix it. In that room you have a strong wi-fi signal with USSD name **FREEWIFI,** but you realize that the laptop cannot even detect any wi-fi signals. Discuss the possible causes of this problem and provide a possible solution.   **(6 Marks)**