



MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

P.O. Box 972-60200 – Meru-Kenya.

Tel: +254 (0)799529958, +254 (0)799529959, +254 (0)712524293

Website: www.must.ac.ke Email: info@must.ac.ke

UNIVERSITY EXAMINATIONS 2021/2022

SECOND YEAR FIRST SEMESTER EXAMINATIONS FOR DIPLOMA IN INFORMATION TECHNOLOGY

CIT 2414 – PC MAINTENANCE AND REPAIR

DATE: AUGUST 2022

TIME: 1½ HOURS

INSTRUCTIONS: Answer question *one* and any other *two* questions.

QUESTION ONE (30 MARKS)

- a) Define computer maintenance and state 3 good reasons why Computer Maintenance is so important (4 marks)
- b) State the four basic types of computer maintenance (4 marks)
- c) List four computer maintenance tools and materials (4 marks)
- d) Outline four reasons of upgrading a hardware or software component (4 marks)
- e) State four basic units of electricity giving their SI units (4 marks)
- f) Define what a computer port and give an example (2 marks)
- g) State the functions of the following components.
 - (i) Computer case (1 mark)
 - (ii) Power supply (1 mark)
 - (iii) CPU fan (1 mark)
 - (iv) Heat Sink (1 mark)
- h) The following types of AC power fluctuations can cause data loss or hardware failure. State the meaning of each
 - (i) Blackout (1 mark)
 - (ii) Brownout (1 mark)
 - (iii) Spike (1 mark)

- (iv) Power surge (1 mark)

QUESTION TWO (15 MARKS)

- a) State four ways of Preventing ESD Damage (4 marks)
- b) State 3 steps of RAM installation (3 marks)
- c) Troubleshooting requires an organized and logical approach to problems with computers and other components. State 6 steps followed in troubleshooting process (6 marks)
- d) State two common uses of laptops (2 marks)

QUESTION THREE (15 MARKS)

- a) Data is transmitted in one of three modes. Explain each of the following modes (3 marks)
 - (i) Simplex
 - (ii) Half-duplex
 - (iii) Full-duplex
- b) The OSI model is an industry standard framework that is used to divide network communications into seven distinct layers. List down the seven layers stating the function of each (7 marks)
- c) A social engineer is a person who is able to gain access to equipment or a network by tricking people into providing the necessary access information. State three ways to protect against social engineering (3 marks)
- d) State two Computer Maintenance Tools and Materials used in PC maintenance (2 marks)

QUESTION FOUR (15 MARKS)

- a) The value of physical equipment is often far less than the value of the data it contains. To protect data, there are several methods of security protection that can be implemented. State four ways of protecting data (4 marks)
- b) As a technician, you should be aware of all business policies about customer calls. State four factors included in a business policy that a technician need to be aware of (4 marks)
- c) There are many different types of customers. State five types of difficult customers technicians handle (5 marks)
- d) State two types of computer maintenance (2 marks)