MACHAKOS UNIVERSITY

University Examinations for 2021/2022 Academic Year

DIRECTORATE OF TVET

SECOND YEAR FIRST TERM EXAMINATION FOR

CERTIFICATE IN INFORMATION TECHNOLOGY

COMPUTER MAINTENANCE & SUPPORT

DATE: 25/7/2022   **TIME: 8.30-11.30 AM**

INSTRUCTIONS
Answer question one in section A and any four questions in section B

SECTION A

QUESTION ONE (32 MARKS)

a) Explain two advantages of a bar code reader as a computer input device.   (4 marks)

b) State two advantages of a mouse as a computer input device.   (2 marks)

c) Identify two computer printing technologies.   (2 marks)

d) Distinguish between the following pairs of computer maintenance and support terms.

    i.   Magnetic disk and magnetic tape   (4 marks)

    ii.   ROM and RAM   (4 marks)

    iii.   Compact disk and Floppy disk   (4 marks)

e) Describe two security threats to computer systems.   (4 marks)

f) Using a well-labelled diagram, illustrate the structure of a disk plate in a hard disk.

    (6 marks)

g) Explain the term BIOS as used in computing.   (2 marks)

SECTION B

QUESTION ONE (17 MARKS)

a) Explain each of the following malware terms.

    i.   WORM   (2 marks)

    ii.   Trojan horse   (2 marks)

    iii.   Boot virus   (2 marks)

    iv.   Bombs   (2 marks)

b)   Write in full the following acronyms;

    i.   DVD   (2 marks)

    ii.   NIC   (2 marks)

    iii.   POST   (2 marks)

c)   Differentiate between the term, disk partitioning and disk formatting.   (3 marks)

QUESTION TWO (17 MARKS)

a)   Write in full the following acronyms.

    i.   BIOS   (2 marks)

    ii.   CMOS   (2 marks)

    iii.   UPS   (2 marks)

b)   Explain the function(s) of the following computer components.

    i.   Processor   (2 marks)

    ii.   Motherboard   (2 marks)

    iii.   Registers   (2 marks)

    iv.   Bus   (2 marks)

c)   Outline two safety precautionary measures to be observed when maintaining a computer.

    (3 marks)

QUESTION THREE (17 MARKS)

a)   Define the following terms in the context of ICT.

    i.   Computer maintenance   (2 marks)

    ii.   Peripheral device   (2 marks)

    iii.   Trouble shooting   (2 marks)

    iv.   E-waste   (2 marks)

b)   Describe two types of I/O ports.   (4 marks)

c)   Fill the following dashes.

    i.   1 GB   =   _____KB   (2 marks)

    ii.   2 TB   =   _____ MB   (3 marks)

QUESTION FOUR (17 MARKS)

a)   Write the following abbreviations in full.

    i.   EPROM   (2 marks)

    ii.   CD-RW   (2 marks)

    iii.   DVD-R   (2 marks)

b)   Identify one symptom of a computer virus infection.   (1 mark)

c) Explain two environmental effects of electronic waste. (4 marks)

d) Distinguish between the following computer terms;

    i. Internal memory and Auxiliary memory (2 marks)

    ii. Flash disk and cassette tape (2 marks)

    iii. Scanner and plotter (2 marks)

QUESTION FIVE (17 MARKS)

a) Describe two types of RAM. (4 marks)

b) Outline one solution of power surges. (1 mark)

c) Explain the meaning of the following terms as used in computer maintenance and support.

    i. Form factor

    ii. Upgrading

    iii. Compatibility (6 marks)

d) Define the following terms in the context of computer systems.

    i. Processor (2 marks)

    ii. Boot (2 marks)

    iii. E-waste management (2 marks)