(University of Choice)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

2022/2023 ACADEMIC YEAR

FIRST SEMESTER EXAMINATIONS

FOR THE DEGREE

IN

NURSING & MIDWIFERY

COURSE CODE: BCS 110

COURSE TITLE: FUNDAMENTALS OF COMPUTING

DATE: 14/4/2023 **TIME:** 8:00 am

INSTRUCTIONS TO CANDIDATES

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

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over.

SECTION A: **COMPULSORY QUESTION**   **{30 MARKS}**

QUESTION 1

a) When you are creating your CV or working on some other documents, on your personal computer.

    i.   Where is your work stored, before you finally save it?   **(1 Mark)**

    ii. The storage unit (as in question above) holds or does three important things. Outline the three.   **(3 Marks)**

b) In MMUST, students use the computers at the labs and their own laptops. Based on your knowledge on history of computers.

    i.   Which generation do the laptops and desktops represent?   **(2 Marks)**

    ii. Argue your answer in question above, (use three reasons).   **(6 Marks)**

c) Explain any three known characteristics of a computer system.   **(6 Marks)**

d) Explain why you would or would not classify a basic mathematical calculator as a computer.

    (2 Marks)

e) Modern computers have primary storage and secondary storage. Explain the meaning of these using a suitable example in each case.   **(4 Marks)**

f) Explain the relationship, if any, between the computer hardware, system software and application software, provide an example in each case.   **(6 Marks)**

SECTION B: ANSWER ANY TWO QUESTIONS   {20 MARKS EACH}.

QUESTION 2

a) The CPU is the brain of the computer,

    i.   Justify this statement   **(2 Marks)**

    ii.   Use a block diagram to explain the CPU.   **(4 Marks)**

b) Monitors are known output devices, describe the two main types of monitors.

    (2 Marks)

c) Show how you can express this binary numbers to the decimal equivalent.

    i. 10101_2 **(3 Marks)**

    ii. 12570_8 **(3 Marks)**

d) Show how you can express this decimal numbers to the binary equivalent.

    i. 39_{10} **(3 Marks)**

    ii. 26_8 **(3 Marks)**

QUESTION 3

a) Draw a block diagram of basic components of a computer system. Explain each component in detail.   **(10 Marks)**

b) You have been selected in a committee to advise the government on how they can benefit from the use of computers. Discuss **three** different applications of computers, you will recommend.

    (6 Marks)

c) Computers have primary storage and secondary storage. Explain the meaning of these using a suitable example in each case.   **(4 Marks)**

QUESTION 4

a) Discuss three types of memory, citing one advantage in each case.   **(9 Marks)**

b) Define a communication network, and hence discuss the importance of networking, use any three reasons.   **(7 Marks)**

c) Monitors and printers are known output devices; -

    i.   Describe the two main types of Printers.   **(2 Marks)**

    ii.   Give two example in question above.   **(2 Marks)**

QUESTION 5

a) Give one similarity and one difference between RAM and ROM.   **(4 Marks)**

b) Discuss **four** different applications of computers in a learning institution.**(8 Marks)**

c) Computer systems may be classifieds based on different perspectives.

    i.   Outline any **two** such perspectives.   **(2 Marks)**

    ii.   Discuss any **three** types of computer systems.   **(6 Marks)**

End of Exam