FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF MEDICAL ENGINEERING

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN MEDICAL ENGINEERING

EIT 2101: **COMPUTER APPLICATIONS (MEDICAL ENG.)**

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: SEPTEMBER 2018

TIME: 2HOURS

DATE: Pick Date Sep 2018

Instructions to Candidates
You should have the following for this examination
-*Examination pass and student ID*
This paper consists of **FIVE** questions. Attempt any THREE questions.
Do not write on the question paper.

QUESTION ONE

a) apart from physical sizes, power supply type and key board /pad, give any THREE outstanding

   differences between a computer and a calculator

   (6 marks)

b) Define the following terms as applied to computing;

   i) Computer terminal

   ii) Computer system

   iii) Cursor

   iv) Pointer

   v) RSI

   (6 marks)

c)

   i) Describe the bottom-up and the top-down programing approach

   ii) For each of the approaches in (i), state one merit and ONE demerit

   (8 marks)

QUESTION TWO

a)

    i)   List the resulting categories if computers are classified according to year of manufacture and simplicity.

    ii) State the technology in each of the categories in (i)

                                      (10 marks)

b) Describe the following input devices

    i) Ergonomic keyboard

    ii) Scroll-wheel

                                        (4 marks)

c) List SIX areas of application of medical software.

                                        (6 marks)

QUESTION THREE

a)

    i) Categorize computers according to the type of electronic signals in them

    ii) Explain each category in (i) above

                                        (9 marks)

b) Describe the following types of printers;

    i) Impact

    ii) Laser

    iii) Inkjet

                                        (8 marks)

c) Define the term WEB SITE and explain how it is identified in the web.

                                        (3 marks)

QUESTION FOUR

a)

    i) Name the THREE parts of the computer CPU

    ii) Explain the function of each of the parts in (i) above

                                        (9 marks)

b) Explain the functions of the following software

    i) System software

    ii) Utility programs

                                        (6 marks)

c) State THREE demerits of using database management systems.

                                        (3 marks)

d) Explain the logical view of data

QUESTION FIVE

a)

   i) Define the term buffer

   ii) Explain the need of buffering in computer systems

b) State the activities in each of the following functions of computer operating system.

   i) Job control

   ii) Memory management

c) With the aid of a sketch, describe the optical fibre method of data transmission