JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

UNIVERSITY EXAMINATIONS 2017/2018

YEAR 2 SEMESTER 1 EXAMINATIONS FOR THE DEGREE OF BACHELOR OF ARCHITECTURAL TECHNOLOGY

HPS 2106: INTRODUCTION TO COMPUTER APPLICATIONS/FUNDAMENTALS OF COMPUTER SYSTEM

DATE: JANUARY 2018   TIME: 2 HOURS

INSTRUCTIONS: ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS.

QUESTION ONE

a) With the aid of a well labeled diagram, discuss the four components of a computer systems (10 marks)

b) Explain any five safe computer practices to avoid virus infection to your computer (5 marks)

c) Computers are classified according to size, purpose and data handling. Discuss the classification of computers according to size (5 marks)

i) Convert the following to binary
   a) 465_{10}
   b) 634.25_{10} (5 marks)

Compute the following;

   a) $10010101_2 - 00110101_2$
   b) $11010_2 * 10001_2$ (5 marks)

QUESTION TWO

Explain any four function of the operating system (4 marks)

Discuss any three types of computer buses (6 marks)

Alice has 600MB of data. Bob has 2000MB of data. will it all fit on Alice's 4GB thumb drive (4 marks)

Explain any three types of computer software (6 marks)

QUESTION THREE

a) What is open source software (2 marks)

b) Define the term "Application software" and give at three two examples (4 marks)

c) Discuss three types of ROM (6 marks)

d) Differentiate between;

    i) Hardcopy and softcopy
    ii) Input device and output device
    iii) Data bus and address bus
    iv) RAM and ROM (8 marks)

QUESTION FOUR

a) With example differentiate between word processors and spreadsheets (4 marks)

b) Explain at least two characteristics of computers (4 marks)

c) Explain four operations of the cpu comprise in a machine cycle (8 marks)

d) Differentiate between CD-Rs and CD-RWs (4 marks)

QUESTION FIVE

a) Define the term "computer system" (2 marks)

b) Explain any two examples of output devices (4 marks)

c) Discuss any five areas where computer can be used (10 marks)

d|) Differentiate between Data and Information (4 marks)