

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**FIRST YEAR FIRST SEMESTER EXAMINATION FOR THE AWARD
OF DEGREE OF BACHELOR OF SCIENCE DEGREE IN : CHEMISTRY; PHYSICS;
BIOLOGY; BSIS; CRSS; ECON AND STAT, MICROBIOLOGY; MATHEMATICS;
HEALTH RECORDS; ANGRICULTURE; BIOCHEMISTRY; ACTURIAL SCIENCE ;
BPSY; COMDEV; BED ECDE; BIOMEDICAL; BA-JMC.**

COSC – 103 : INTRODUCTION TO COMPUTER APPLICATIONS.

STREAMS: YEAR1 SEMESTER 1

TIME: 2 HOURS

DAY/DATE: FRIDAY 18/12/2020

11.30AM – 1.30 PM

INSTRUCTIONS

- Answer question **ONE** and any other **TWO** questions.

QUESTION ONE (30 MARKS) COMPULSORY

- a) Find the value of X, Y and Z: (6 Marks)
- i. $52139_{10} = (X)_{16}$
 - ii. $1011.1101_2 = (Y)_{10}$
 - iii. $CBAD_{16} = (Z)_{10}$
- b) Explain the difference between copying and deleting a file. (4 marks)
- c) Provide a definition of application software, and provide three examples of this type of software. (4 marks)

- d) Describe the following terms as used in spreadsheet:
- i. Cell (2 marks)
 - ii. Formula bar (2 marks)
- e) Explain three types of operating systems giving an example in each case (6 marks)
- f) Discuss the three major types of computer network, citing the differences in each type. (6 marks)

QUESTION TWO (20 MARKS)

- a) Using a well labeled diagram, explain the role of the various functional components of a computer. (10 marks)
- b) Discuss five output and five input devices in a computer, giving their main functions. (10 marks)

QUESTION THREE (20 MARKS)

- a) Kenya Airport Authority, a state corporation, intends to buy human resource management software. Explain any two factors they should consider when selecting the software. (4 marks)
- b) Explain the three components of central processing unit (CPU). (6 marks)
- c) With the aid of sketches, describe two-page orientation options. (4 marks)
- d) State two ways of reducing eye strain when using a computer. (2 marks)
- e) Distinguish between spreadsheet and worksheet as applied in spreadsheet programs (4 marks)

QUESTION FOUR (20 MARKS)

- a) Discuss any THREE social impacts of the internet. (6 marks)
- b) Define the term computer virus, hence explain any three common types. (6 marks)
- c) You are the head of a local Network consulting company. Your company has won a contract to design and develop a network for a middle level college in Chuka. Explain four benefits the college will gain by implementing the network. (8 marks)

QUESTION FIVE (20 MARKS)

- a) Describe two types of page breaks available in typical word processing program. (4 marks)
- b) Distinguish between cut and paste features as applied in word processing programs. (4 marks)
- c) Study the following extract created using word processing program and then answer the question that follows

Introduction

Cognitive science is the scientific study of intelligence and intelligent systems with particular reference to intelligent behaviour in computing.

Cognitive science is an interdisciplinary course encompassing cognitive psychology, linguistics, artificial intelligence, neuroscience, philosophy, and other fields as well, with the common goal of understanding the nature of human thought.

The Heritage Illustrated Dictionary defines cognition as

- The mental process or faculty by which knowledge is acquired.
- That which comes to be known, as through perception, reasoning, or intuition; knowledge

Therefore, we can see that cognitive science encompasses many disciplines of study like **neuroscience** for the study of the brain and **nervous** system, **psychology** for learning, **information processing** and so on.

- Identify *eight* formatting features applied in the extract. (4 marks)
- d) Explain the term defragmentation as used in computer systems. (2 marks)
- e) Under what circumstance would the keyboard numeric pad be used when entering data in the computer. (2 marks)
- f) Differentiate between special-purpose and general-purpose computers giving a place where each is likely to be found. (4 marks)

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