

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN
CHEMISTRY, PHYSICS, CRIMINOLOGY AND SECURITY STUDIES, BSIS,
ECONOMICS AND STATISTICS**

COSC 103: INTRODUCTION TO COMPUTER APPLICATIONS

STREAMS:

TIME:2 HOURS

DAY/DATE: FRIDAY 13/12/2019

2.30 P.M – 4.30 P.M

INSTRUCTIONS:

Answer question ONE and any other TWO questions.

QUESTION ONE { 30 MARKS }.

- (a) Using the computer block diagram explain four basic functions of a computer system. (7 marks)
- (b)) Discuss the operations of any two types of computer viruses. (4 marks)
- (c) Discuss three characteristics of computers (6 marks)
- (d) Outline at least four key features of fourth and fifth computing generations. (4 marks)
- (e) Explain the three categories of computers according to their functionalities. (6 marks)
- (f) Define the term Protocol as applied in computer networks and outline the functions of a communication protocol. (3 marks)

QUESTION TWO {20 MARKS}.

- a). State and explain **four** different types of computer registers. (8 marks)
- b). List and explain four Components of a communication network: (8 marks)
- c). Discuss **two** fundamental categories of Computer software using suitable examples for each. (4 Marks)

QUESTION THREE { 20 MARKS }.

- a). Explain the purpose of EACH of the following elements of a computer system: (6 Marks)
- i. Accumulator
 - ii. ALU
 - iii. Control unit
 - iv. Data bus
 - v. RAM
 - vi. ROM
- b) Discuss the following forms of computer networks: LAN, WAN and MAN. (5 marks)
- c). Describe Star topology, Bus topology and Mesh network topologies, giving their advantages and limitations. (9 marks)

QUESTION FOUR { 20 MARKS }

- a) The bus subsystem consists of three main parts. Name and explain the parts. [6Marks]

b) List and explain any three types of computer operating systems. [6marks].

c) Using appropriate examples distinguish between input and output devices. (8 marks)

QUESTION FIVE (20 MARKS)

a) List four functions of the operating system software (4 Marks)

b) Convert decimal 157_{10} to its binary equivalent (4 marks)

c) Briefly, discuss what is Internet? Explain two roles of the internet in enhancing business performance in government sector. (4 Marks)

d) What is the positive and negative impact of internet? (4 Marks)

e) Catherine was working on a presentation created using a presentation program and wished to insert a slide between slides 3 and 4. Outline the steps she would follow to achieve her objective. (4 marks)
