

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF
CERTIFICATE IN COMPUTER SCIENCE**

COSC 00171: NETWORKS AND INTERNET

STREAMS:

TIME: 2 HOURS

DAY/DATE: TUESDAY 13 /07/ 2021

2.30 PM – 4.30 PM

INSTRUCTIONS:

- Answer question **ONE** and **TWO** other questions
- Do not write anything on the question paper
- This is a **closed book exam**, No reference materials are allowed in the examination room
- There will be **NO** use of mobile phones or any other unauthorized materials
- Write your answers legibly and use your time wisely.
- Marks are awarded for clear and concise answers.

SECTION A (Answer ALL questions in this section)

QUESTION ONE (30 Marks)

- a. State TWO ways of accessing resources from websites. (2 Marks)
- b. While stating what they stand for, explain the difference between MAN, PAN and CAN. (6 Marks)
- c. Differentiate between spamming and phishing in computer networks. (4 Marks)
- d. Explain any Two advantages and TWO disadvantages of using a star topology. (4 marks)
- e. Differentiate internet, intranet and extranet. (6 Marks)
- f. Explain FOUR advantages of computer networks (4 Marks)
- g. While stating what they stand for, explain the role of each of the following: (4 Marks)
 - i. DNS

- ii. SMTP

SECTION B (Answer any TWO questions)

QUESTION TWO (20 Marks)

- a) Explain the role of the following devices in a network. (8 Marks)
 - i. Switch
 - ii. Hub
 - iii. Router
 - iv. Repeaters
- b) Using a diagram, explain the client/server model. (4 Marks)
- c) As a network architect, discuss FOUR factors to be considered when choosing a topology for a client. [8 marks]

QUESTION THREE (20 Marks)

- a. What is a computer network? Explain TWO advantages and TWO disadvantages of LAN. (6 Marks)
- b. Explain FOUR factors to be considered when selecting a transmission medium (4 marks)
- c. State and explain FIVE types of network security implementations (10 Marks)

QUESTION FOUR (20 Marks)

- a. Describe the layers of the TCP/IP Model (8 Marks)
- b. Explain the role of a network administrator. (4 marks)
- c. While stating what they stand for, distinguish between TCP and UDP (8 Marks)

QUESTION FIVE (20 Marks)

- a. List any FOUR **main** uses of the Internet. (4 Marks)
- b. List and explain FOUR types of computer networks (8 marks)
- c. With the aid of diagrams, explain each of the following network topologies (8 Marks)
 - i. Ring Topology
 - ii. Bus Topology
 - iii. Star Topology
 - iv. Hybrid Topology

.....