

KISII UNIVERSITY
UNIVERSITY EXAMINATIONS
MAIN CAMPUS
SECOND YEAR EXAMINATION FOR THE AWARD OF THE DEGREE OF
BACHELOR OF BUSINESS INFORMATION AND TECHNOLOGY
1st SEMESTER 2023/2024
(SEPTEMBER – December 2023)

BINM 252: DATA COMMUNICATIONS AND COMPUTER NETWORKS

STREAM: BINM 252 Y2S1

TIME: 2 HOURS

INSTRUCTIONS

- 1. Do not write anything on this paper.**
- 2. Answer questions ONE and any other THREE questions.**
- 3. Question ONE contains 25 marks. Every other question contains 15 marks**

QUESTION ONE (COMPULSORY)

[25 MARKS]

1. Explain the functions of the application layer and its inherent protocols
[4marks]
2. Discuss the driving forces of data communications today
[6marks]
3. Describe the components of a LAN
[6marks]
4. Critically evaluate Unshielded Twisted Pair (UTP) and Shielded Twisted Pair (STP)
[9marks]

QUESTION TWO

[15 MARKS]

1. Explain convergence as used in Data communications [6marks]
2. “You have been appointed the ICT manager with an international bank.”
Recommend to the bank appropriate application architecture
[9marks]

QUESTION THREE

[15 MARKS]

1. Briefly state the functions of three important data communications standards-making bodies. [6marks]
2. Write short notes on the following terminologies [4marks]
 - a. Telnet
 - b. Ping

3. Briefly describe five internet applications

[5marks]

QUESTION FOUR

[15 MARKS]

1. Describe packet switching as used in data communications [5marks]
2. "I'm going to present over 20% in increased IT spending this year" A usual statement from ICT executive. Discuss the advantages that networking bring to an organisation

[10marks]

QUESTION FIVE

[15 MARKS]

1. List and explain three network topologies [5marks]
2. Explain the functions of the following in networking
 - A) DHCP server
 - B) print server
 - C) Web server
 - D) DNS server
 - E) Router

[10marks]