

## **MURANG'A UNIVERSITY OF TECHNOLOGY**

### SCHOOL OF COMPUTING AND INFORMATION TECHNOLOGY

#### UNIVERSITY ORDINARY EXAMINATION

#### 2021/2022 ACADEMIC YEAR

# SECOND YEAR FIRST SEMESTER EXAMINATION FOR DIPLOMA IN INFORMATION TECHNOLOGY

#### SIT056– FUNDAMENTALS OF COMPUTER NETWORKS

#### **DURATION: 2 HOURS**

#### **INSTRUCTIONS TO CANDIDATES:**

- 1. Answer question one and any other two in section B
- 2. Mobile phones are not allowed in the examination room.
- 3. You are not allowed to write on this examination question paper.

#### QUESTION ONE (30 MARKS)

a)	Define the following terms.		(6 mks)
	i.	Data communication	
	ii.	Protocol	
	iii.	Multiplexing	
	iv.	Encoding	
	v.	Data link Control	
	vi.	Packet	
b)	Discu	ass with the aid of a diagram the data communication system.	(6 mks)
c)	Discu	ss the 3 types of directions of data flows of data transmissions.	(6 mks)
d)	Distin	guish between parallel and serial types of data transmissions.	(6 mks)
e)	) Discuss 3 advantages of packet switching technique.		(6 mks)

#### **QUESTION TWO (20 MARKS)**

a)	Discuss any 3 types of Data line encoding schemes	(12 mks)			
b)	Explain 4 functions of Data communication protocols	(8 mks)			
QUESTION THREE (20 MARKS)					
a)	State and explain 5 devices used in internet working.	(10 mks)			

b) Discuss briefly the 3 functions of Data link control	(10 mks)
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#### **QUESTION FOUR (20 MARKS)**

a)	Explain 5 features of ATM Technologies.	(10mks)
b)	Explain briefly the 3 LAN technologies	(10 mks)