

FORM 3

LESSON 3

INTRODUCTION TO COMMUNICATION TECHNOLOGIES

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HOW NETWORKING DEVICES WORK

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- a. **Hub** is a basic networking device that connects multiple devices. It works by broadcasting data to all connected devices without filtering or directing the traffic.
- b. A **switch** is a device that connects multiple devices and forwards data frames based on **MAC addresses**.
- c. A. Repeater is a networking device which receives weak signals, amplifies and regenerate them
- d. A bridge is a networking device that divides a busy network into segments and transmit data by broadcasting
- e. A modem is a device that is used to convert a digital signal to analogue signal for transmission and from analogue to digital at the receiving end.
- f. A **Network Interface Card (NIC)** is a hardware component that enables a device, such as a computer, to connect to a network

EXERCISE 3

Here are some of the questions for you to practice. No need for you to send responses, its for your own practices.

1. Explain how the following networking devices work
 - a. Hub

_____ (2 marks)

- b. Switch

_____ (2 marks)

- c. A modem

_____ (2 marks)

- d. A bridge

e. _____
_____ (2 marks)

END OF THE LESSON 3