Province of the

EASTERN CAPE
EDUCATION

DIRECTORATE SENIOR CURRICULUM MANAGEMENT (SEN-FET)

HOME SCHOOLING SELF-STUDY WORKSHEET ANSWER SHEET

SUBJECT	COMPUTER APPLICATIONS TECHNOLOGY	GRADE	12	DATE	20/04/20
TOPIC	Networks: General	TERM 1 REVISION		TERM 2 CONTENT	✓

Write down the correct answer for each of the following questions.

1. Multiple choice:

    a. Which one of the following is not networking equipment?

    Answer: B

    b. An advantage of wide area networks is that everyone on the network can access the same data and…

    Answer: C

    c. A disadvantage of wide area network is that the setting up of it can …

    Answer: C

2. Matching items

    Match column B with column A:

    Answer: **2.1** *H*   **2.2** *D*   **2.3** *A*   **2.4** *F*   **2.5** *B*

3. True or false statements

Indicate whether the following statements are TRUE or FALSE. Write 'true' or 'false' next to the question number. Correct the statement if it is FALSE. Change the underlined word(s) to make the statement TRUE. You may not simply use the word 'NOT' to change the statement.

a. An extender is a piece of hardware that can be added to a computer and makes it possible to connect to a network.

Answer: False – A network adapter

b. The internet is the best-known LAN.

Answer: False – WAN

c. A WAN is a computer network that covers a small area.

Answer: False – large

d. To create a wireless network, you only need two types of networking equipment: a wireless access point and a wireless network adapter.

Answer: True

e. In modern computers, the network adapters are built into the motherboard.

Answer: True

4. Short questions

Answer the following questions.

a. What is a WAP and why is it important in a wireless network?

Answer: A wireless access point (WAP) is like a hub for wireless devices. It allows wireless devices to connect to each other in a local network, but does not connect the local network to the internet.

b. In your own words describe what the internet is and why it is important in modern society.

Answer: The internet is a computer network that consists of billions of connected devices, allowing people to share information, obtain entertainment or chat to one another.

c. What role does an ISP play when connecting to the internet?

Answer: An (ISP) Internet Service Provider is a company that allows the user to connect to their network. Through this network the user is able to connect to the internet. Any two of the following: M-Web, Afrihost, Telkom, Vodacom, MTN, etc.

d. Large networks have changed the way we share and store information. Name three additional advantages of large networks.

Answer: Any three of the following:
- *sharing hardware*
- *providing access to entertainment*
- *providing access to services*
- *connecting people.*

e. If you are looking to create a home network, what equipment will be needed. Will this change when you look to connect the network to the internet?

Answer: Any three of the following:

- *Network adapter*
- *Network cables*
- *Router*
- *Switch*
- *Hub.*

f. What are the advantages and disadvantages of using a wireless network instead of a wired network when connecting to the internet?

Answer:

ADVANTAGES:

CONVENIENCE – The wireless nature of such networks allow users to access network resources from nearly any convenient location within their primary networking environment (a home or office). With the increasing saturation of laptop-style computers, this is particularly relevant.

MOBILITY – With the emergence of public wireless networks, users can access the internet even outside their normal work environment. Most chain coffee shops, for example, offer their customers a wireless connection to the internet at little or no cost.

PRODUCTIVITY – Users connected to a wireless network can maintain a nearly constant affiliation with their desired network as they move from place to place. For a business, this implies that an employee can potentially be more productive as his or her work can be accomplished from any convenient location.

DEPLOYMENT – Initial setup of an infrastructure-based wireless network requires little more than a single access point. Wired networks, on the other hand, have the additional cost and complexity of actual physical cables being run to numerous locations (which can even be impossible for hard-to-reach locations within a building).

EXPANDABILITY – Wireless networks can serve a suddenly-increased number of clients with the existing equipment. In a wired network, additional clients would require additional wiring.

COST – Wireless networking hardware is at worst a modest increase from wired counterparts. This potentially increased cost is almost always more than outweighed by the savings in cost and labor associated to running physical cables.

DISADVANTAGES

SECURITY – To combat this consideration, wireless networks may choose to utilize some of the various encryption technologies available. Some of the more commonly utilized encryption methods, however, are known to have weaknesses that a dedicated adversary can compromise.

RANGE – The typical range of a common 802.11g network with standard equipment is on the order of tens of meters. While sufficient for a typical home, it will be insufficient in a larger structure. To obtain additional range, repeaters or additional access points will have to be purchased. Costs for these items can add up quickly.

RELIABILITY – Like any radio frequency transmission, wireless networking signals are subject to a wide variety of interference, as well as complex propagation effects that are beyond the control of the network administrator.

SPEED – The speed on most wireless networks (typically 1-54 Mbps) is far slower than even the slowest common wired networks (100Mbps up to several Gbps). However, in specialized environments, the throughput of a wired network might be necessary.

g.   Give an example of where HTTPS protocol is used and how does it differ from HTTP?

Answer: HTTPS is mainly used for ecommerce. It is used when the data sent over the network must be secure and protected, for instance when online banking is done. It works the same as Hypertext Transfer Protocol but is more secure.