 Province of the

EASTERN CAPE

EDUCATION

**DIRECTORATE SENIOR CURRICULUM MANAGEMENT (SEN-FET)**

**HOME SCHOOLING SELF-STUDY WORKSHEET**

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| **SUBJECT** | INFORMATION TECHNOLOGY THEORY | **GRADE** | 11 | **DATE** | 6 April to 10 April 2020 |
| **TOPIC** | Electronic Communications – Use of wireless technologies/Data Security | **TERM 1****REVISION** | (Please tick) | **TERM 2 CONTENT** | ✓ |
| **TIME ALLOCATION** | 1hr | **TIPS TO KEEP HEALTHY**1. **WASH YOUR HANDS** thoroughly with soap and water for at least 20 seconds. Alternatively, use hand sanitizer with an alcohol content of at least 60%.2. **PRACTISE SOCIAL DISTANCING** – keep a distance of 1m away from other people.3. **PRACTISE GOOD RESPIRATORY HYGIENE**: cough or sneeze into your elbow or tissue and dispose of the tissue immediately after use.4. **TRY NOT TO TOUCH YOUR FACE.** The virus can be transferred from your hands to your nose, mouth and eyes. It can then enter your body and make you sick. 5. **STAY AT HOME.**  |
| **INSTRUCTIONS** | Resources used// Most of this week’s work is taken from the New DBE book* Its gr8! @ grade12 theory, Study Opportunities
* Information Technology Theory Book Grade 12 , DBE
* Past Exam Papers

Answer all questions |
|  | 1 Indicate whether the following statements are TRUE or FALSE. 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. SMTP is the protocol used to receive emails.b. Services like WhatsApp or Skype use VoIP to allow users to make free voice calls to other WhatsApp or Skype users.c. SMTP stands for Short Message Transfer Protocol and is used to send emails.d. POP3 is the only protocol that can be used to receive email messages.e. HTTP and HTTPS are used to transfer files over the internet.2 You have decided to place 3G connectivity instead of ADSL connectivity in your living room. A wireless router will be used to connect all your mobile devices and computers to the interneta. What is wireless technology?b. 3G/LTE connectivity is becoming popular in many homes. Explain what 3G is.c. What type of network category does 3G fall in?d. List ONE advantage 4G/LTE has over 3G.e. What medium of data transmission is used in 3G/LTE?3 Protocols are necessary to enable transmission across a network or the Internet. Briefly describe where each of the following will be used.a. VOIPb. POP34 A password is used to protect your computer from others accessing it. Answer the following questions regarding security of a computer.a. Explain how using a password for online services can protect you.b. List THREE ways to make your password secure.c. What is encryption?d. What do most websites use to enable encryption?5 Match the COLUMN A (1.1 – 1.12) with the correct answer in COLUMN B. Writedown only the question number and the matching letter in COLUMN B (A – L).

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| COLUMN A | COLUMN B |
| 5.1. Firewall5.2. Password5.3. Encryption5.4. Protocol5.5. VOIP5.6. Wi-Fi5.7. POP35.8. Software firewall5.9. HTTPS5.10. SMTP5.11. Hardware firewall5.12. Bluetooth | A. This protocol tells your email application what information is needed to successfully send an emailB. Wireless LANs connecting computers and devices using radio signals communicating through wireless access points over a short rangeC. These are installed on the user’s computer and protects a single computer.D. A security feature on most computers and online servicesE. A set of rules that describe how data is sent between two computersF. Determines how the voice data should be sent and receivedG. This works by allowing any data you request or send to go through while blocking anyunrequested informationH. Any data sent between two computers is changed from something that is useful to encrypted data that looks like nonsense.I. This one of the protocols that is used to retrieve emails from your mail server.J. This protocol ensures that all data sent to and from the website is encryptedK. Connects devices over short distances using radio waves.L. This is installed between a local network and the internet and protects all the computers on the network. |

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