 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** | 10 | **DATE** | 14bApril to 17 April 2020 |
| **TOPIC** | Basic Concepts of System Software – Test/Consolidation activity | **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 chapter 4   * Its gr8! @ grade12 theory, Study Opportunities * Information Technology Theory Book Grade 12 , DBE * Past Exam Papers   Answer all questions |
|  | Choose the correct answer.  1. Embedded computers are found in …  a. IOT devices  b. motor cars  c. all of the above.  2. A device manager is ...  a. an application programme  b. a utility programme  c. an application tool  3. A desktop computer will typically have …  a. a stand-alone operating system  b. a server operating system  c. none of the above.  4. Storage is usually associated with an …  a. HDD  b. SSD  c. all of the above.  5. What is your option should your computer not have an automatic driver?  a. Download the driver from the manufacturer’s website.  b. Install the driver from the CD/DVD that comes with the hardware.  c. Both A and B.  6. A driver’s role is to \_\_\_\_\_  a. explain to your operating system how to communicate with the plug-and-play device.  b. explain to your operating system how to communicate with the hardware device and make it  function properly.  c. explain to your operating system how to communicate with the software device and make it  function properly.  7. The following operating systems work directly on computers to ensure sure that the tasks of an operating  system are completed.  a. Stand-alone systems  b. Embedded operating systems  c. Network operating systems  8. In order to optimise your computer by playing music and using another application for your essay, you want your  operating system to allocate the exact number of resources to these applications that they need to run so that  they can both run at the same time. We call this the \_\_\_\_\_\_\_\_\_\_\_.  a. Process management system  b. I/O management system  c. Hardware management system.  9. Choose a term/concept from COLUMN B that matches a description in COLUMN A. Write only the letter next to  the question number (e.g. 1– A). There can be more than one answer to a question. Some of the questions  (column A) may have more than one correct answer (column B).   |  |  | | --- | --- | | COLUMN A | COLUMN B | | 1. Manages hardware, software and other applications on a  computing device.  2. Managing the signals received from an input device and  sending the correct signals to an output device.  3. Lines of code and computer instructions that tell the hardware  of a computing device what to do.  4. Managing the applications and the resources used by  applications (Apps) on a computing device.  5. Software that contains a set of instructions that command a  computer’s operating system on how to communicate with  the hardware.  6. An operating system designed for a specific purpose.  7. Processes used to improve the performance of data  storage resources.  8. System software that helps users in maintaining their computers | A. Storage management system  B. Utility program  C. Embedded  D. I/O management system  E. Software  F. Operating system  G. Process management  H. Device driver |   10. 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 word(s) in bold text to make the statement TRUE where  necessary. You may not simply use the word ‘NOT’ to change the statement. NO mark will be awarded if only  FALSE is written down.  a. The I/O manager makes sure that files are stored correctly.  b. File managers allow users to manage files that are stored on their computers.  c. Embedded operating systems form the backbone of the internet.  d. RAM is responsible for keeping information that the computer is currently using.  11. In your own words, explain why it is important to use drivers.  12. Look at the following advertisements for two computers and answer the questions below:   |  |  | | --- | --- | | COMPUTER 1 | COMPUTER 2 | | Intel Core i5 CPU (2.5 GHz)  4GB 2133 MHZ RAM  1 TB HDD  Windows 10  Mouse, keyboard and speakers  21” HD monitor  2-year warranty  Norton anti-virus standard | Intel Core i7 CPU (3.8 GHz)  Nvidia GeForce RTX 2060 GPU  8GB 2400 MHZ RAM  256 GB SSD  Windows 10  Mouse, keyboard and speakers  27” Full HD monitor  2-year warranty |   a. Your friend wants to play a game on his computer, but the game keeps crashing with the following error message – “Error: Insufficient Memory”.  i. Which of the two computers advertised above will most likely solve this problem?  ii. Explain the reason for your choice.  iii. What does it mean when we say that the operating system is responsible for the memory management  in a computer?  b. The advertisements states that, one computer has 8 GB RAM and a 256 GB SSD and the other has 4GB RAM and a 1 TB HDD. What do RAM, SSD and HDD mean?  c. Explain the role of a device driver.  d. Explain system software in your own words.  e. Every computing device must have an operating system loaded, whether it is Windows, Linux, macOS, or Android.  i. Which operating system is used by both computers in the advertisements?  ii. What is the main role played by a computer’s OS?  iii. Utility programs are included when an OS is pre-installed on a computer. Give an example of a utility  program that is preinstalled.  f. Which computer has another type of system software loaded apart from the operating system?  i. Write down the computer number.  ii. Write down the name of the system software referred to. | | | | |