





Province of the
EASTERN CAPE
EDUCATION

DIRECTORATE SENIOR CURRICULUM MANAGEMENT (SEN-FET)

HOME SCHOOLING SELF-STUDY WORKSHEET ANSWER SHEET

SUBJECT	INFORMATION TECHNOLOGY THEORY	GRADE	12	DATE	30 March to 3 April 2020
TOPIC	Revision Exercises What is cloud computing?	TERM 1 REVISION	(Please tick)	TERM 2 CONTENT	✓
TIME ALLOCATION	1hr	<u>TIPS TO KEEP HEALTHY</u> 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 - Its gr8! @ grade12 theory, Study Opportunities - Information Technology Theory Book Grade 12 , DBE - Past Exam Papers Answer all questions				
	Operating Systems 1. Many end-users are not really sure what an operating system is and why they even need one.				

	Give a concise (short, to-the-point) definition of what an operating is and give four typical functions of an operating system. 1. An operating system is system software which controls all the activities that take place in a computer. Functions of an operating system • provides an interface • manages processes and tasks • manages memory • manages input and output • manages the disk/s etc. 2. Multitasking is when a computer runs or appears to run multiple programs at the same time. Briefly explain how this is achieved in a system with a single core CPU. 2. The operating system splits the CPU time between the active programs and gives each program a few fractions of a second of access time to the CPU. Because this switching between programs happens so quickly, it appears to us that the computer is performing more than one task at the same time. 3. Can multitasking and multiprocessing take place in a computer system with a single CPU? Briefly motivate your answer. 3. Multitasking can take place with a single (or multiple) processor, and can be used to allocate CPU time to each of the active programs, so that it appears that the computer is performing more than one task at the same time. Multiprocessing, however, only takes place when the operating system divides the programs or threads or processes between <i>more than one physical CPU</i>. (This includes CPUs with more than one core because each core is a CPU even if it is not on a separate chip). Virtualisation 1. Virtualisation is a common term in computers. This ranges from virtual memory to virtual reality. How are all these systems 'implemented'. 1. They are created as virtual 'objects' using software. 2. List two main advantages of virtualisation
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2. You will save money and time. You will increase the level of efficiency.
3. Give two examples of virtualisation software.
3. Virtual Box, Parallels, VM Player, etc.
4. Explain the difference between a host and a guest operating system in the context of virtualisation.
4. The host operating system is the original operating system installed on the computer. The guest operating systems are those that run as virtual operating systems on the computer.
5. How does the concept of a virtual machine get around the issue of different operating systems?
5. A virtual machine (VM) is a software program emulating a computer, running inside our real PC. The programs installed inside the virtual machine will behave as if, and believe that, they're running in the hardware the virtual machine is emulating. Virtualisation allows one to simulate an operating system environment, so you can run several different virtual operating systems on the same machine. You first load your 'normal' operating system (known as the host) then the simulated operating system (the guest) runs on a virtual machine.

Cloud Computing

1. What do you need to be able to use cloud computing?
1. A good Internet connection.
2. List four uses of cloud computing.
2. File syncing, backup, media repository, applications
3. Name three file syncing services.
3. Any three valid examples such as Dropbox, iCloud, OneDrive (formerly SkyDrive), SugarSync, CX and Google Drive.
4. What is the main advantage or aim of file syncing?
4. All your devices have the (same) latest copy or version of files.