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	Examples of cloud computing Online storage – file syncing, Online storage – backup, Media repositories, Cloud applications Software as a Service	**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. **PRACTICE 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				

	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. 5. It is possible to upload files to a file syncing service and manage them manually, but it works best when you download and install a local app and set it up so that a specific folder on your computer is automatically synced. Why is this the case? 5. This is because any sub-folder or file you create, save or update within the home folder will automatically be uploaded to, or updated in, the cloud. 6. Explain the difference between using a file syncing service and a backup service. 6. A file syncing service is meant to be treated like an external storage device. A backup service offers incremental backup of a whole system and is only meant to be accessed when you try to restore data after a disaster. 7. Online media stores like iTunes and Amazon all provide the facility of media repositories. a) What is a media repository in this context? a) It is storage space in the cloud to save the media you purchased instead of having to download that media. b) Give two advantages of using a media repository service. b) Advantages: • You don't need to download your purchases and carry them around on portable storage. • You can connect to the 'cloud' and play the media from whatever device you happen to be using. • You always have access to ALL your media, no matter what device you are using or how little storage space you have on that device. c) Why is the service less suitable for media such as movies?

	c) Because the media is played online from the Internet, media repositories work better for relatively low-bandwidth media, such as music, than for high-bandwidth media, such as movies. High-bandwidth means that more cap is used in the streaming process, and there is also a higher possibility that the media will be 'jerky' (caused by buffering) over a slow connection. 8. How does a cloud application differ from a local application? 8. The processing takes place on a server in the cloud instead of on the local computer. 9. What does it mean if a cloud app has a 'local front end'? 9. There is an application installed on the device that runs to create the user interface and so reduce the amount of data that needs to be transferred. 10. Photosynth is an example of a cloud-based application. What is this service used for? 10. You (and many other people) can upload photos taken at any zoom, angle, etc. of a location and have everyone's photos stitched together to create a pan-able, zoom-able mega-panorama or 3D view of the scene. 11. What does it mean to rent something? 11. To pay a fee to be able to use something for a specified time. 12. How does using SaaS differ from purchasing software? 12. You pay a fee for the right to use software – and always have the latest version of the software – instead of buying the permanent right to use a specific version for a fixed once-off fee. 13. With SaaS, who owns what? 13. The client owns nothing – the software creator owns the software and sells a time-limited right to use it. 14. Give an example of a SaaS application that can be downloaded and run on your computer. 14. Adobe Creative Cloud, Office 365. 15. Cloud computing relies heavily on *virtualisation* technologies. Give two ways in which this is achieved by referring to suitable examples. 15. Two ways plus suitable examples: • You can split the resources of very powerful machines between multiple users (e.g. where it appears that you have access to your own storage or web server when you are actually sharing a single powerful server computer or large NAS (Network Attached Storage) with others).

	• You can combine the resources of many machines to create a super-powerful service that can – using virtualising technology – appear to be a single machine. 16. Give three potential risks of using cloud computing. 16. Three potential risks of using cloud computing: • You are relying on the service provider to stay in business or, at least, if they go out of business, warn you and give you the opportunity to recover (download) your data and find an alternative service provider. • You are trusting the company to follow good security practices to keep your data safe from hackers. • You are trusting the company to follow good backup policies that will ensure that your data is safe if disaster strikes. • Companies can 'oversell' their services (i.e. have more customers than their resources can handle, which can result in lower-quality services). 17. Give three broad benefits of cloud computing. 17. Three broad benefits of cloud computing: • Resources are scalable • The ability to work and access resources wherever you have Internet connectivity • It enables collaboration • You can outsource maintenance, upgrades of hardware, software installation and upgrades 18. What does the term 'scalability' mean? 18. The ability to increase or decrease the amount of resources needed on demand. 19. Give an example of scalability in action. 19. A web hosting service increasing the bandwidth, CPU power, memory, etc. to be able to cope with a sudden increase in traffic.