 Province of the

EASTERN CAPE

EDUCATION

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

**HOME SCHOOLING SELF-STUDY WORKSHEET ANSWER SHEET**

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| **SUBJECT** | INFORMATION TECHNOLOGY THEORY | **GRADE** | 12 | **DATE** | 30 March to 3 April 2020 |
| **TOPIC** | * How cloud computing affects hardware needs * Cloud computing and virtualisation * Risks and benefits of cloud computing | **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. Cloud computing relies heavily on *virtualisation* technologies. Give two ways in which this is achieved by referring to suitable examples.  1. 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.   2. Give three potential risks of using cloud computing.  2. 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).   3. Give three broad benefits of cloud computing.  3. 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   4. What does the term ‘scalability’ mean?  4. The ability to increase or decrease the amount of resources needed on demand.  5. Give an example of scalability in action.  5. A web hosting service increasing the bandwidth, CPU power, memory, etc. to be able to cope with a sudden increase in traffic. | | | | |