

061205T4CYB

CYBER SECURITY TECHNICIAN LEVEL 6

SEC/OS/CS/CR/01/6

Perform Computer Repair and Maintenance

March/April 2026



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL (TVET CDACC)
WRITTEN ASSESSMENT**

Time: 2 HOURS

INSTRUCTIONS TO CANDIDATE

1. This paper consists of **TWO** sections: **A** and **B**.
2. Attempt **ALL** questions in section **A** and **ANY THREE** Questions in section **B**
3. Marks for each question are indicated in the brackets.
4. Candidates are provided with a separate answer booklet
5. Do not write on the question paper.

*This guide consists of **THREE (3)** printed pages.*

*Candidate should check the question paper to ascertain that all the pages are
printed as indicated and that no questions are missing*

SECTION A (40 MARKS)

Attempt ALL questions in this section.

1. Computer systems depend on certain support components to function effectively. Outline TWO functions for each of the following support components. (4 marks)
 - a) BIOS
 - b) UPS (Uninterruptible Power Supply)
2. Motherboards allow hardware components to communicate with the operating system. State FOUR bus architectures used on motherboards. (4 marks)
3. Performance tuning is common among system users when dealing with hardware, software or a combination of both. State FOUR benefits of overclocking a CPU. (4 marks)
4. Storage technologies have evolved significantly. State FOUR characteristics of solid-state drives (SSD). (4 marks)
5. A computer maintenance report is an essential document during maintenance. Outline FOUR importance of this report. (4 marks)
6. During a routine maintenance task, a technician decides to consult the components manual. Identify FOUR reasons a technician would use a manual when disassembling and assembling computer components. (4 marks)
7. A computer system requires regular upgrades in order to perform optimally. Identify FOUR challenges faced when upgrading hardware components. (4 marks)
8. Peripheral connectivity ensures all external devices can communicate effectively with the computer to ensure smooth input, output and data exchange. . State FOUR USB connector type. (4 Marks)
9. A computer memory is classified into primary and secondary memory. Outline FOUR functions of a random-access memory (RAM). (4 marks)
10. Thermal paste and applicator tools are essentials in designing compact electronics where overheating can cause device failure. Distinguish between thermal paste and applicator tool. (4 marks)

SECTION B (60 MARKS)

Attempt ANY THREE questions in this section.

- 11.** John, a cybersecurity analyst at ABC Company, is responsible for overseeing a systems upgrade while ensuring compliance with the organization's licensed software and ICT policy.
- a) Describe FOUR steps John would take to ensure software license compliance during the upgrade. (8 marks)
 - b) Explain THREE importance of adhering to ICT policy on licensed software during computer system upgrade. (6 marks)
 - c) Assess THREE controls John would implement to monitor and enforce software compliance throughout the upgrade (6 marks)
- 12.** During system troubleshooting, a technician discovered that a computer's motherboard had malfunctioned as a result of overheating.
- a) Describe FIVE factors he would consider when acquiring a new motherboard. (10 marks)
 - b) Explain FIVE possible preventive measures that the technician should put in place to prevent computer overheating. (10 marks)
- 13.** A technician is assigned to diagnose and service computers with hardware and performance issues..
- a) Describe FIVE tools used in computer repair and maintenance. (10 Marks)
 - b) Explain FIVE steps followed when safely disassembling a computer. (10 Marks)
- 14.** Sam has noticed abnormal system behavior on his personal computer, leading him to suspect a malware infection.
- a) Explain FOUR common symptoms that indicate a computer may be infected with a virus. (8 marks)
 - b) Analyze THREE possible causes of virus infections on personal computers. (6 marks)
 - c) Evaluate THREE preventive measures Sam should implement to protect his computer from future virus infections. (6 marks)

END