

061006T4ICT

ICT TECHNICIAN LEVEL 6

IT/OS/ICT/CR/6/6

PERFORM COMPUTER REPAIR AND MAINTENANCE

March/April 2025



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

WRITTEN ASSESSMENT

TIME: 3 HOURS

INSTRUCTIONS TO CANDIDATE

1. This paper consists of **TWO** sections: **A** and **B**.
2. Answer **ALL** questions in section **A** and **ANY THREE** (3) 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 paper consists of FOUR (4) printed pages

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

SECTION A (40 MARKS)

Answer ALL the questions in this section.

1. Md. Lucy introduced a topic on troubleshooting to your class.
 - a) Define the term

troubleshooting

b) Explain its importance in computer repair.

2. Mombo Ltd has decided to upgrade its network interface card (NICs). State FOUR reasons that may have necessitated this move.
3. Stress testing is an essential practice in computer repair and maintenance. Outline FOUR purposes of testing method.
4. Checking a computer's warranty before replacing any components is a crucial step in the repair and maintenance process, State FOUR benefits of doing so.
7. Mijiti computer hardware inventory had the following terms. Define them as used in inventory management
 - a) Model number (2 Marks)
 - b) Serial number (2 Marks)
8. When working with a Power Supply Unit (PSU), Wambilianga was advised to take caution due to the potential risks involved. Explain TWO potential hazards he should be aware of. (4 marks)
9. By understanding the nature of the fault, a technician will decide whether to repair or replace a computer component. Differentiate between repairing and replacing (4 marks)
10. During system repairs in the computer lab at Mayeko TTI, Peter was requested to document all that was being done. State FOUR reasons why this documentation is important. (4 Marks)

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5. POST (Power-On Self-Test) is a critical diagnostic procedure. (2 Marks)

- a) Define the term POST (Power-On Self-Test).
- b) Explain how it helps in the testing process. (2 Marks)

6. Testing the functionality of a computer's RAM is crucial to ensure that the system runs efficiently and reliably. Outline FOUR ways to detect any issues with a computer's RAM (4 Marks)

SECTIONB (60 MARKS)***Answer Any THREE Questions in This Section***

11. a) During a computer repair and maintenance practical session. Mr. Mafuta distributed motherboards resembling the one in Figure 1(a) below to each group. Describe the function of each of the parts Labeled 1 to 6. (12 Marks)

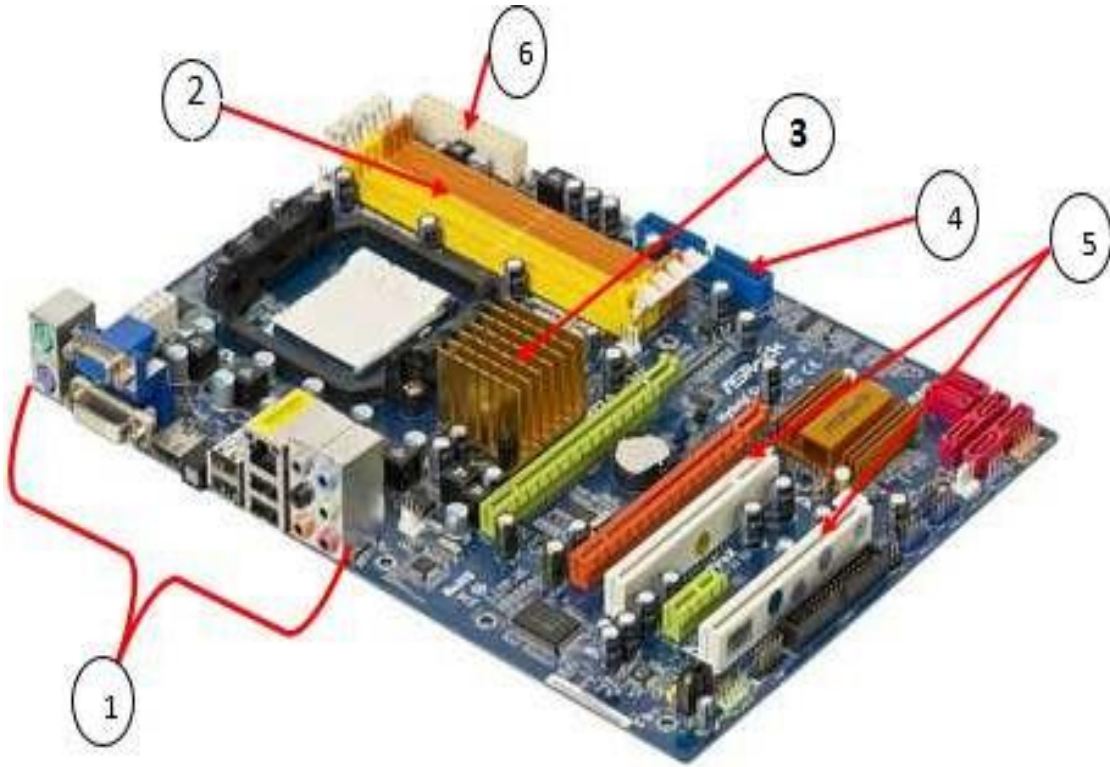


Figure 1(a)

- b) Judy was diagnosing a computer fault and decided to use the test methods listed below. Explain the two types of testing techniques.
- i. Functional test (2 Marks)
 - ii. Performance test (2 Marks)
- c) Failing computer drives often exhibit specific symptoms that indicate impending failure. Outline FOUR signs of a failing storage drive. (4 Marks)
12. In the ICT sector, adhering to Occupational Safety and Health standards is essential to ensure the safety and well-being of employees working in environments with equipments and other related tools.
- a) List FOUR Personal Protective Equipment's (PPE) commonly used in computer repair and maintenance. (4 Marks)

- b) Explain the importance of the below precautionary measures when handling computer components.
- i. Grounding (2 Marks)
 - ii. Antistatic measures (2 Marks)
- c) Safe handling and disposal of e-waste is essential to protect the environment, ensures human health and recover valuable materials. Describe THREE steps in each case to follow when
- i. Handling e-waste (6 Marks)
 - ii. Disposing of e- waste (6 Marks)
13. a) As a computer technician, you have been asked to assemble a maintenance toolkit for a new office. Describe the function of FIVE tools you are likely to enlist in the toolkit. (10 Marks)
- b) A status report is an essential document that helps stakeholders to understand the current state of the computer. Discuss FIVE key components that will be included in the report. (10 Marks)
14. a) You have been tasked with. In your strategy. Explain FIVE differences which you would include in your maintenance strategy. (10 Marks)
- b) As a computer technician, determining whether upgrading a system is necessary requires evaluating multiple factors to ensure the upgrade will deliver tangible benefits. Explain FIVE factors you would consider before deciding on upgrading. (10 Marks)