

**061206T4CYB**

**CYBERSECURITY TECHNICIAN LEVEL 6**

**SEC/OS/CS/CR/01/6/A**

**PERFORM COMPUTER REPAIR AND MAINTENANCE**

**Nov/Dec. 2023**



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

**PRACTICAL ASSESMENT**

**INSTRUCTIONS TO THE ASSESSOR**

1. You are required to mark the practical as the candidate performs the tasks.
2. You are required to take video clips at critical points.
3. Allocate the candidate **10 minutes** to carefully read through the instructions and to collect the tools/resources required for the tasks.
4. Allocate the candidate **3 Hours** to perform **three (3)** practical tasks.
5. The candidate should write his/her name, registration code, date and sign in the practical assessment attendance register.
6. Ensure the candidate has a name tag and registration code at the back and front.
7. Ensure the candidate has been provided with:
  - A computer system whose computer case has been dismantled.
  - Set of screwdrivers
  - Antistatic wrist strap
  - Needle nose pliers
  - Tweezers or forceps
  - Windows Operating system (windows 7, 8 or 10)
  - Answer booklet

## OBSERVATION CHECKLIST

<b>Candidate's name &amp; Registration No.</b>			
<b>Assessor's name &amp; Reg. code</b>			
<b>Unit(s) of Competency</b>	<b>Perform Computer Repair and Maintenance</b>		
<b>Venue of Assessment</b>			
<b>Date of assessment</b>			
<i>(Award mark(s) appropriately as guided for in the items for evaluation indicated. Give a brief comment where necessary)</i>			
<b>Items to be evaluated:</b>	<b>Marks Available</b>	<b>Marks Obtained</b>	<b>Comments</b>
<b>Task 1: Assembling Computer case components.</b>			
<p><b>Adhered to prescribed safety as per workplace procedures.</b></p> <p><i>i.e. safety Boots (award 1mark), Dust coat (award 1mark), use of antistatic wrist strap (award 1mark), check for loose fitting clothes (award 1mark), Working on a clean and a stable surface (award 1mark).</i></p> <p><b>Assembling procedure</b></p> <p>i. <b>Motherboard Installation</b> - check for correct Location of the motherboard tray or mounting area within the case. Mark for carefully positioning the motherboard onto the screw holes on the case, ensuring it lines up correctly. Check for correct securing of the motherboard in place using screws, ensuring they are tightened – <i>Award 4 marks</i></p> <p>ii. <b>CPU and CPU Cooler Installation</b> – Mark for identifying the CPU socket on the</p>	<b>30</b>		

<p>motherboard and open the socket lever.</p> <p>Gently placing the CPU into the socket and aligning the markers on the CPU and socket.</p> <p>Check for correct closing of the socket lever to secure the CPU in place, attaching the CPU cooler according to manufacturer's instructions, ensuring it is properly seated and securely fastened - <i>Award 4 Marks</i></p> <p>iii. <b>Memory (RAM) Installation</b> – Locating the RAM slot, aligning the notch on the RAM module with the slot key and insert the RAM stick into the slot and pressing down the module firmly - <i>Award 2 Marks</i></p> <p>iv. <b>Storage and Expansion Cards Installation</b> – mark for correct identification of the appropriate drive bays for the storage devices and sliding them into the bays, securing them with screws or tool-less mechanisms - <i>Award 2 marks</i></p> <p>v. <b>Install the graphics card into the appropriate PCI slot</b> - Ensuring that graphics card is seated properly and secured with screws or latches. Installation of any additional expansion cards into their respective slots - <i>Award 2 marks</i></p> <p>vi. <b>Power Supply installation and Cable Management</b> – Check for correct placing of the power supply unit (PSU) into the designated PSU compartment within the case, ensuring it is oriented correctly.</p> <p>Connecting of the necessary power cables from the PSU to the motherboard, graphics card, storage devices, and other component</p>			
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<p>that requires power - <i>Award 4 marks</i></p> <p>vii. <b>Organizing and secure the cables</b> - Ensuring cables are secured using cable ties and routing them neatly to improve airflow and aesthetics - <i>Award 2 marks</i></p> <p>viii. <b>Final Checks and closing the case</b> – Confirming that all connections of all components are properly connected and secured. Verifying that all necessary cables are connected. Closing the computer case by reattaching the side panels and securing them with screws - <i>Award 2 marks</i></p> <p>ix. <b>Testing the computer</b> - Connecting the computer to a power source and powering on the computer and verify that it boots up correctly. Checking the functionality of all components, including the CPU, RAM, storage devices, graphics card, and any additional expansion cards - <i>Award 3 marks</i></p>			
<b>Task 2: Installing Operating System</b>			
<p>i. <b>Preparing Installation Media</b> - Checking that the candidate has the installation media for the desired OS, such as a DVD or USB flash drive and has mounted it to the correct port or drive- <i>Award 1 mark</i></p> <p>ii. <b>Setting Boot Priority</b> – Candidate is able to access the computer's BIOS or UEFI settings by pressing the appropriate key during startup (e.g., F2, Delete, Esc), and navigating to the "Boot Order" section in the BIOS/UEFI settings. Set the boot priority to prioritize the installation media (DVD drive or USB) so that the computer boots from it</p>	<b>20</b>		

<p>first - <i>Award 3 marks</i></p> <p>iii. <b>Starting the Computer from the Installation Media</b> – After setting the BIOS, save the changes and restart the computer, and it should boot from the installation media - <i>Award 2 marks</i></p> <p>iv. <b>Choosing Language and Region</b> - Check for correct language selection, time zone, and keyboard layout when prompted by the installation wizard - <i>Award 2 marks</i></p> <p>v. <b>Partition and Format Hard Drive</b> - The installation wizard presents options for partitioning the hard drive. Note for correct selection the desired partitioning scheme (e.g., creating a new partition or using an existing one). Formatting the selected partition using the file system supported by the OS - <i>Award 3 marks</i></p> <p>vi. <b>Install the OS</b> - Follow the on-screen prompts to proceed with the installation, agreeing to any license agreements or terms of service if prompted. Wait for the installation process to complete, which may involve multiple steps like copying files, configuring settings, and installing drivers. Also, the computer may restart severally - <i>Award 3 marks</i></p> <p>vii. <b>Setting up User Account and Configuration</b> – Note for correct provision of the necessary information, such as username, password, and computer name, when prompted. The username and password should be as provided. Mark for correct</p>			
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<p>configuration settings related to network connectivity, privacy preferences, and updates - <b>Award 3 marks</b></p> <p>viii. <b>Finalize Installation</b> - After completing the initial setup, the computer should restart. Disconnect the installation media so that the computer can boot from the newly installed OS. Test the computer so that the computer can boot and allow successful login - <b>Award 3 marks</b></p>			
<b>TASK 3: Creating User Account</b>			
<p>i. Open the Control Panel and clicking on User Accounts - <b>Award 2 marks</b></p> <p>ii. In the User Accounts window, click on Create a new account – <b>Award 1 mark</b></p> <p>iii. In the Create a new account window, enter a username and password for the new account. Retype the password to confirm that they match - <b>Award 2 marks</b></p> <p>iv. Once you have entered the required information, click on Create account - <b>Award 1 mark</b></p> <p>v. Login to the new account to test that it's created successfully - <b>Award 4 marks</b></p>	<b>10</b>		
<b>TOTAL</b>	<b>60</b>		
<b>ASSESSMENT OUTCOME</b>			
<p><b>The candidate was found to be:</b></p> <p style="text-align: center;">Competent <input type="checkbox"/>      Not yet competent <input type="checkbox"/></p> <p><i>(Please tick as appropriate)</i></p> <p><b><i>(The candidate is competent if s/he gets 50% or higher of the items of evaluation correct)</i></b></p>			

**Feedback to candidate:**

**Feedback from candidate:**

**Candidate's Signature**

**Date**

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**Assessor's Signature**

**Date**

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