

061306T4CSC

COMPUTER SCIENCE LEVEL 6

ICT/OS/CS/CR/01/6/A

UNDERSTAND COMPUTER ORGANISATION AND ARCHITECTURE

NOV/DEC 2023



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

PRACTICAL ASSESSMENT

TIME: 2 Hours

CANDIDATES INSTRUCTIONS

- i. In this practical assessment, you are required to perform **THREE** tasks
- ii. You have **Ten** minutes to read through the instructions and check availability of resources for the practical.
- iii. Each task has specific instructions.
- iv. All tasks carry **50** marks.
- v. The assessor will record your performance at critical points using audio-visual means.

You will be provided with the following resources:

- i. A working computer installed with windows OS

TASK 1

(20 Marks)

Perform the disassembly and subsequent reassembly of a computer system, adhering to safety protocols and ensuring all components are correctly installed

a) Disassemble a computer

(i) Disconnect all external devices and power sources.

(ii) Open the system unit, disconnect and extract the following components:

- CMOS battery
- RAM (Random Access Memory)
- Cooling fans
- CPU (Central Processing Unit) heat sink and fan
- Expansion cards (Specifically, Sound Cards)
- Power supply unit
- HDD (Hard Disk Drive)

b) Reassemble a computer

Reassemble a computer by putting all the previously mentioned components back together, and then boot the computer to ensure proper functionality.

TASK 2

(20 Marks)

You are tasked with identifying the computer components, following the guidance provided by the assessor. The assessor will verbally indicate each component, and your responsibility is to physically locate and confirm its presence within the system unit. If you observe the absence of any component, kindly inform the assessor.

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|---------------------------|---------------------|----------------|
| 1. Power Supply Unit | 8. RAM | 15. Monitor |
| 2. Ethernet port | 9. CMOS Jumper | 16. VGA port |
| 3. Motherboard | 10. USB port | 17. Heatsinks |
| 4. Network Interface Card | 11. SATA data cable | 18. CPU |
| 5. Backup Battery (CMOS) | 12. I/O Shield | 19. RAM slot |
| 6. CPU Socket | 13. HDMI port | 20. Sound Card |
| 7. Cooling System (Fans) | 14. Ethernet port | |

TASK 3

(10 Marks)

Conduct a system diagnostic using both Device Manager and the DirectX Diagnostic Tool to identify and resolve any hardware or software issues on the computer

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