**061006T4ICT**

**ICT Technician Level 6**

**ICT/CU/IT/CR/6/6/A**

**Perform computer repair and maintenance**

**Nov. /Dec. 2022**



**THE KENYA NATIONAL EXAMINATIONS COUNCIL**

**WRITTEN ASSESSMENT**

**Time: 3 hours**

## INSTRUCTIONS TO CANDIDATES

*Maximum marks for each question are indicated in brackets ( ).*

*This paper consists of* ***TWO*** *sections: A and B.*

*Answer questions as per instructions in each section.*

*You are provided with a separate answer booklet*.

***This paper consists of 3 printed pages***

***Candidates 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)**

*(Answer all the questions in this section)*

1. Define the following terms as used in computer systems. **(4 Marks)**
2. Adapter card
3. Bays
4. Explain the purpose of a power supply hardware component in a computer. **(2 Marks)**
5. Differentiate between CPU *overclocking* and *throttling* **(4 Marks)**
6. State the purpose of the following in a computer system.  **(2 Marks)**
7. CMOS
8. BIOS setup
9. Computer components perform better when kept cool. If the heat is not removed, the computer may run slower or components can be damaged. Explain **three** ways in which heat is regulated within a computer system. **(6 Marks)**
10. List any **four** motherboard form factor. **(4 Marks)**
11. State the function of the following in a computer system.  **(3 Marks)**
12. Operating system
13. RAM
14. Device driver
15. List any **four** types of drive interface technologies. **(4 Marks)**
16. State any **four** reasons why it's important to update computer systems regularly. **(4 Marks)**
17. Outline any **three** possible causes of Overheating of the computer Microprocessor. **(3 Marks)**
18. List any **four** diagnostic tools in computer. **(4 Marks)**

**SECTION B: (60 MARKS)**

***(Answer any three questions in this section)***

1. a) Define monitor resolution **(2 Marks)**

b) Explain briefly any **three** factors involved in monitor resolution **(6 Marks)**

c) List **four** technologies that are used in creating images in monitors and projectors. **(4 Marks)**

* + - 1. Monitors have controls for adjusting the quality of the image. Explain **four** common monitor settings. **(8 Marks)**

1. a) Explain **three** power protection devices used to protect data and computer equipment. **(6 Marks)**

b) Discuss at least **four** types of AC power fluctuations that can cause data loss or hardware failure. **(8 Marks)**

1. Outline any **six** benefits of preventive maintenance. **(6 Marks)**
2. a) Discuss the troubleshooting process **(12 Marks)**

b) Explain any **four** disk management tools. **(8 Marks)**

1. a) Explain the purpose of the following commands in relation to operating system files.

**(10 Marks)**

1. Msconfig
2. Regedit
3. Msinfo32
4. Dxdiag
5. Cmd

b) Discuss any **five** measures you would undertake to keep computer systems secure.  **(10 Marks)**