PAPER ONE

1: Identify programming languages used in the following generations :

(i)   **First generation**

ASCII

(ii)   **Second generation**

Binary

2: Give the importance of having the following in computer laboratory:

(i)   **Standard furniture in the laboratory**
Because poor sitting may lead to health risks such as back pains

(ii)   **Anti-glare screen/monitor**
To avoid glare caused bright backgrounds

(iii)   **UPS**
Used to protect the computer from power related issues

3: Explain the following terms as used in booting:

(i)   **BIOS**
It is where the post process is accomplished

(ii)   **POST**
It is the process by which , when the computer is turned on you may hear the sound of the cooler fan running after which lines of text start scrolling on the screen

(b) Differentiate between:

(i) Backspace and delete keys on the keyboard
Backspace is used to delete typed characters or words from right to left while delete key is used to erase characters in a document.

(iii)   **Insert and type over mode**

4: Explain the functions of the following central processing unit components

(i)   **ALU**
Perfoms logical operations and comparison on data.

(ii)   **Control Unit**
Interpreting instructions.

(iii)   **Primary memory**
Store data just before and after processing.

5: (a) Differentiate between static RAM and dynamic RAM

Static RAM chips are physically larger and much more expensive than dynamic RAM chips.

(b) Distinguish between a compiler and an interpreter

6 (a) List two softcopy output devices

    (i)   Music

    (ii)   Screen display

(b) Distinguish between impact and non-impact printers siting one example in each

       Impact printers use striking mechanism and are noisy, e.g dot-matrix

       Non-impact printers by either laser, thermal or ink and are silent e.g laser

7 State two merits of using the following input devices:

    (i)   **Speech recognition**

    (ii)   **Touch screen**

8 Differentiate between freeware and open source as end user license software

       Freeware is a category of software license which allow for free of charge acquisition and use

       While open source is a software whose program code is made available to users

9 (a) List four types of system software

       Operating systems

       Firmware

       Utility software

       Network Software

(b) Explain the following functions of the operating system:

    (i)   **Job scheduling**

        To allocate the CPU tasks waiting for execution in the main memory

    (ii)   **Interrupt handling**

        It's the prioritizing of the interrupts in a queue and handling the conditions that are arisen by the interrupt.

10: Explain the following disk management tools:

    (i)   **Disk formatting**

        Is the process of preparing a storage medium such as hard disk, flash disk or memory card for first time use

    (ii)   **Disk defragmentation**

        It's the process of moving file fragments to contagious location to optimize on storage space and performance

11 Differentiate between the following terms as applied in operating system:

(i)   **Multi user**

Current trend is towards sharing hardware and software resources hence need a multi-user Operating system

(ii)   **Multi-tasking**

It is also known as multi programming operating systems, enables the CPU to execute more than one task