COMPUTER STUDIES
FORM 1 END TERM 2 – 2024 EXAMINATION
MARKING SCHEME

1. a) What is a peripheral device? [1mk]
   - ***Peripheral devices*** *are the elements (components) connected to the system unit so as to assist the computers satisfy its users.*
   - ***Peripheral devices*** *are the elements (components) connected to the system unit via the data interface cables.*

   b) Name four examples of peripheral devices. [2mks]
   - *keyboard, mouse, monitor, printer, storage device, microphone etc.*

   c) Differentiate between data interface cable and power cable. [4mks]
   - *Data interface are used to connect a device to the computer system and are used to carry data power cable are used to transmit power.*

   d) List three types of interface cables. [3mks]
   - *Serial*
   - *parallel*
   - *VGA cable*
   - *HDMI*
   - *Firewire cable*
   - *USB cable*

2. Name four characteristics of a computer. [4mks]
   - *Accuracy*
   - *Versatile/flexibility*
   - *Diligence*
   - *Memory /vast storage*
   - *Speed*
   - *Reliability*

3. State four characteristics of the fifth generation of computers. [4mks]
   - *Technology used is superconductor and parallel processing*
   - *Voice recognition input devices introduced such as microphone*
   - *Artificial intelligence was introduced*
   - *Internet introduced*
   - *Distributed computing system has been introduced*
   - *Small, but high capacity storage device called*
   - *Speed*
   - *Portability*
   - *Emitted very little or negligible*
   - *Easy to use and maintain*
   - *Software user-friendly*

4. Name four mouse techniques and give the function of each. [8mks]
   - Double click- *open a program, select a word*
   - Click- *select an item, execute a command*
   - Right click- *opens a context sensitive menu*
   - Drag and drop- *move an item from one place to another.*

5. Name three categories of keyboard keys. [3mks]
   - *Alphanumeric*
   - *Number*
   - *Numeric keypad*
   - *Cursor movement and editing keys*
   - *Special purpose keys*
   - *Function keys*

6. State three facilities that will ensure proper ventilation in a computer laboratory. [3mks]
   - *Large & enough windows and doors*
   - *Installing fans*
   - *Installing air conditioning system*
   - *Avoid overcrowding of either machines or people in the room*

7. Explain the following power related problems experienced in the computer lab. [6mks]
   - Brownout- *this is a partial blackout. It is the condition whereby there is low voltage flowing to the system.*
   - Blackout-*this is the situation where there is no current flowing to the system.*
   - Power surge-*is a condition where there is high voltage flowing to the system.*

8. Name three ways of classifying computers, giving an example for each category. [6mks]
   - *Functionality – analog, digital and hybrid*
   - *Physical size and processing power- supercomputer, mainframe, mini and microcomputer.*
   - *Purpose – general and special purpose*

9. Explain the following components of a computer system.
   Hardware [2mks]
   - *The physical components of a computer which are tangible.*

   Software [2mks]
   - *A set of instructions that guide the computer in each and every activity during data processing.*

   Liveware
   - refers *to the computer user.* [2mks]

10. a) Give two functions of an input device. [2mks]
    - *Accepts data from the medium in which it is stored*
    - *Convert data from human readable form to computer/machine readable form*
    - *Transmit the data to the computer for processing.*

    b) List six examples of input devices. [3mks]
    - *mouse, keyboard, joystick, trackball, touch screen/monitor/screen, scanners OMR, OCR, OBR, badge readers, microphone,*

    c) State three factors to consider when choosing an input device. [3mks]
    - *Volume of data to be entered*
    - *The type of data to be entered*
    - *Speed of input*
    - *Special needs of the user*
    - *The cost of the input device*
    - *Compatibility of the input device*
    - *The reliability of the input device*

11. a) Differentiate between softcopy output and hard copy output. [4mks]
    - *Softcopy output is the output that can be listened or can be viewed while hardcopy output is the printed output from a printer, plotter etc.*
    - *Softcopy refers to the intangible output while hardcopy refers to the tangible output.*

    b) Give two examples of softcopy output devices and two hardcopy output devices. [4mks]
    - *Softcopy output devices- LED, Monitor, speakers, data projectors, TV screen*
    - *Hard copy output devices – printer, plotter, fax machines, COM*

c) State three differences between an impact and a non-impact printer. [6mks]

Impact printers	Non-impact printers
Speed of printing is low	*Speed of printing is high*
Use inked ribbons, which may be colored or black	*Use electrostatic or thermal principles or toners*
Multiple copy production is possible when carbonated paper is used	*Multiple copy production is almost impossible*
Cheaper to buy and maintain. The ribbons are not expensive	*Costly to purchase and maintain. The toners and cartridges are expensive*
Noisy printers.	*Quiet printers.*
Poor quality prints out.	*High quality print out.*

12. a) Describe three functional elements of the Central Processing Unit. [6mks]
- *Control Unit*
- *Arithmetic and logic*
- *Main memory*

b) Define a computer bus. [2mks]
- *Electronic pathway for data and instructions.*

c) Name and explain three types of computer buses. [6mks]
- *Data bus*
- *Address bus*
- *Control bus*

13. a) Write in in full the following acronyms. [2mks]
- RAM- *Random Access Memory*
- ROM- *Read Only Memory*

b) State three differences between RAM and ROM. [3mks]

RAM	ROM
Volatile	*Non volatile*
Temporary	*Permanent/semi-permanent*
User defined	*Firmware*
Hold data	

14. Give three difference between CRT monitor and flat panel displays. [3mks]

CRT	*FLAT PANEL DISPLAY*
It is bell shaped	*It is flat shaped*
Has poor resolution	*Has a high resolution*
Heavier, hence not portable	*Light, hence portable*
Occupies more space	*Occupies less space*
Cheaper	*Expensive*
Produces a high amount of radiation	*Produces a low amount of radiation*
Consumes more power	*Consumes less power*

15. State three factors to consider when selecting a storage device. [3mks]

- *Cost: the storage devices come in different prices*
- *Availability: is the desired storage device available in the market*
- *Accessibility to information stored in it: this may be sequential or direct/random*
- *Durability: one should buy a device that is long lasting.*
- *Storage capacity: a device with large storage capacity will hold more data and information. Some devices have large capacities in megabytes, gigabytes etc.*
- *Physical size and portability: some devices can easily fit in a pocket while others cannot. Some devices have storage are more portable; that is, they can easily be carried from place to place.*
- *Compatibility with the existing computer system hardware: a system should have for example, a CD drive if the device to be used is a CD.*

16. State three ways a computer can be used in a school. [3mks]

- *In research*
- *Analysis of examination*
- *In library*
- *During registration especially NEMIS-admission of new student*
- *Preparing examination*
- *For entertainment*
- *As teaching aids*