

COMPUTER STUDIES
FORM 1 END TERM 2 – 2023 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
<i>Speed of printing is low</i>	<i>Speed of printing is high</i>
<i>Use inked ribbons, which may be colored or black</i>	<i>Use electrostatic or thermal principles or toners</i>
<i>Multiple copy production is possible when carbonated paper is used</i>	<i>Multiple copy production is almost impossible</i>
<i>Cheaper to buy and maintain. The ribbons are not expensive</i>	<i>Costly to purchase and maintain. The toners and cartridges are expensive</i>
<i>Noisy printers.</i>	<i>Quiet printers.</i>
<i>Poor quality prints out.</i>	<i>High quality print out.</i>

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 full the following acronyms. [2mks]

- *RAM- Random Access Memory*
- *ROM- Read Only Memory*

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

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

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

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

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*

