

Name:.....Class:.....AdmNo:.....

Computer Studies

Form 2 End Term 1 Examination

Time: 2Hours

Instruction: Answer All Questions in the spaces

1. Describe the following three components of the computer system.
 - a) Hardware [2mks]
refers to the physical components of a computer system. This is the tangible components/parts of a computer e.g. keyboard, mouse, CPU, monitor etc.
 - b) Software [2mks]
can be described as computer programs or this is the intangible parts of a computer.
 - c) Liveware [2mks]
can also be termed as wetware and greyware. This word is used to describe a computer user
2. Define the following terms as used in computer system:
 - a) System [2mks]
a system is a collection of entities that work together to achieve a common goal.
 - b) Computer system [2mks]
is a collection of entities (hardware, software, liveware, and firmware) that work together to receive, process, manage and present information in a meaningful format.
 - c) Firmware [2mks]
these are manufacturer's settings though, can be classified under software i.e. programs in ROM chips.
3. Differentiate between input stage and output stage. [4mks]
Input stage – this stage involves entering data into the computer using input devices e.g. keyboard.
Output stage – this stage involves processing outcome that will be displayed by output devices i.e. the screen.
4.
 - a) What is a peripheral device. [2mks]
These are the devices connected to the system unit via communication media i.e. interface cables and wireless means. The cables are attached to the system using special sockets called ports while wireless peripheral devices use light rays (optical means) to connect to the system unit i.e. infrared rays.
 - b) The following are common examples of peripheral devices. Give the function(s) for each component.
 - i) Keyboard [2mks]
this peripheral device looks like a typewriter. It is used to enter data into the computer inform of characters, symbols and instructions. Therefore, a keyboard is keying input device.
 - ii) Mouse [2mks]
this is a pointing device that enable the user to enter commands. To input a command, the user moves the mouse which also moves the pointer on the screen, the user then clicks on icons and to issue commands.
 - iii) Monitor [2mks]
the monitor is also called the screen or VDU. This output device enables the user to see what is happening in the system unit.
 - iv) Printer [2mks]
this is an output device which converts softcopy (intangible data/output) into hardcopy (tangible output/data).

5. Describe the five generations of computers in terms of hardware technology used. [5mks]

Generation	Hardware technology used
First generation	Thermionic valves or vacuum tubes
Second generation	Transistors
Third generation	Integrated Circuits (ICs)
Fourth Generation	Very Large Scale Integrated Circuits (VLSI)
Fifth Generation	Use of advanced VLSI in the name of microprocessor

6. Dust and smoke damage the surface of the hard disk and other moving parts of a computer system. State four ways dust can be avoided in a computer laboratory. [4mks]

- *Avoid smoking in the computer lab*
- *Cover computers with dust covers*
- *Put curtains along the windows*
- *Avoid entering the lab with muddy shoes*
- *Use the dust blower to blow off the dust from the computers more often*

7. Give five factors one needs to consider before acquiring a computer system. [5mks]

- *Processor type and speed*
- *Memory capacity*
- *Warranty*
- *Cost*
- *Compatibility and upgradability*
- *Special needs*
- *Portability*
- *Multimedia capabilities*
- *Documentation*
- *Research*
- *Training*
- *User-friendliness*
- *Authenticity*
- *Data security*
- *Durability*

8. a) Define the term operating system. [2mks]

- *It is the main program that controls and manages the computer's hardware and software resources. It acts as the interface between the user applications and the computer hardware.*

b) List five resources that are managed and controlled by the operating system. [5mks]

- *Processor*
- *Memory*
- *Input/output devices*
- *Secondary storage devices*
- *Communication devices*

c) System software performs the fundamental operations that avails the computer resources to user applications. Give four types or ways of categorizing system software. [4mks]

- *Operating system*
- *Firmware*
- *Networking software*
- *Utility programs*

9. a) What is a scanning device. [2mks]

- *These are devices that capture data directly into the computer.*
- *They can also be defined as devices that use a magnetic or photo-electric source to scan and convert images into electric signals that can be processed by an electronic apparatus such as a computer.*

b) Give two ways of classifying scanning devices. [2mks]

- *Optical scanners*
- *Magnetic scanners*

10. Explain the function(s) of the following keys on the keyboard.

i) F1 [2mks]

- *Activate help*

ii) Shift key [2mks]

- *Enable other keys to activate second function*

iii) Return Key [2mks]
 • Carry out command/execute for the active option or button/starts a new line when editing or typing lines of text

iv) Home key [2mks]
 • Moves the cursor to the beginning of the current line or display the top of the active window.

v) Insert key [2mks]
 • Switch from insert mode to type over mode editing modes and vice versa.

11. Explain three types of special purpose memories housed in the CPU, system board, input and output devices to enhance system performance. [6mks]

- Cache memories

A CPU cache is a cache used by the CPU of a computer to reduce the average time to access memory. The cache is a smaller, faster memory which stores copies of the data from the most frequently used main memory locations. As the microprocessor processes data, it looks first in the cache memory and if it finds the data there (from the previous reading of data), it does not have to do the more time consuming reading of data from larger memory. Cache memory is sometimes described in levels of closeness and accessibility to the microprocessor. An L1 cache is on the same chip as the microprocessor.

- Buffers

A buffer is a region of physical memory storage used to temporarily hold data while it is being moved from one place to another. Typically, the data is stored in a buffer as it is retrieved from an input device (such as a mouse) or just before it is sent to an output device (such as speakers). However, a buffer may be used when moving data between processes within a computer. Like a cache, a buffer is a 'mid point holding place' but exist not so much to accelerate the speed of an activity as to support the coordination of separate activities.

- Registers

A processor register is a small amount of storage available as part of a CPU or other digital processor. Such registers are (typically) addressed by mechanisms other than main memory and can be accessed more quickly.

12. State five factors to consider when purchasing a printer. [5mks]

- Hardware cost- this is the initial cost of the printer i.e. laser printers are costly
- Running cost- this involves maintenance cost i.e. consider the cost of buying cartridges and toners and also the printing mechanisms.
- Software and networking features-is your printer compatible with the features of your computer. Most modern printers require higher memory and a higher computer speed.
- Printing speed-which kind of printer do you want? Character, line or page printer? If you handle large volumes of data? Then page printer will serve better.
- Printing quality and reliability-presentable work and reliability are vital for the general output of a printer. Check whether it supports different paper sizes.
- User needs-user's expectations and needs are vital in any printer purchase i.e. card printers, photo printers, receipt printers, publishing etc.
- Availability of running materials-do some feasibility study on the availability of running materials in the market for they should be readily available.

13. a) Define a file. [2mks]

- It is a collection of related data or information given a unique name for ease of access and stored in one location.

b) Briefly describe three types of files. [6mks]

- System files- contain information that is critical for the operation of the computer.
- Data files- these files contain user specific data.
- Application- these files hold programs or applications files that are executable.

14. Differentiate between disk formatting and disk partitioning. [4mks]
- *Disk formatting is the process of creating tracks and sectors in a new disk in preparation for data storage while disk partitioning is the process of dividing the physical disk into two or more logical drives where each partition is treated as a separate drive installed on its own partition.*
15. a) Define Electronic word processing. [2mks]
- *Word processing is the art of creating, saving, editing, formatting and printing text and graphic documents using an electronic word processor.*
- b) The following is a word screen. Label it with the correct name. [10mks]

Download the other FREE materials from <https://teacher.co.ke/notes>

