

**COMPUTER STUDIES FORM TWO
MARKING SCHEME
FORM TWO
TERM ONE OPENER EXAM 2022**

1. Define the following terms.
 - i) Computer 2mks
It is an electronic device capable of receiving data (input) and performs a sequence of operations (processing) to produce output also known as information.
 - ii) Datum 2mks
Datum is the singular for data. It refers to raw, unprocessed facts that have no meaning to the user.
 - iii) Information 2mks
Information is the processed data that is meaningful to the user.
 - iv) Computer system 2mks
A computer system is a collection of three entities namely software, hardware and liveware that work together to process and manage data.
 - v) Operating system 2mks
An operating system is a system software that manages the hardware and execution of applications.

2. Give **three** differences between a CRT and a flat panel screen. 3mks

CRT	Flat Panel screen
Is bell-shaped	Screen flat shaped
Has poor resolution	Good resolution
Heavier hence less portable	Light hence more portable
Occupies more space	Occupies less space
Cheaper	Expensive
Produces a lot of radiation	Produces less radiation
Consumes more power	Consumes less power

3. Mention **FOUR** reasons why laptops are more expensive than desktop computers with the same specifications. 4mks
 - ✓ *The technology of miniaturization of components is expensive.*
 - ✓ *They are smaller than desktop computers and are therefore portable.*
 - ✓ *They have inbuilt uninterruptible power supply (ups) in form of a battery.*
 - ✓ *Most of their peripheral devices are inbuilt unlike in a desktop.*

4. a) Write the acronym UPS in full. 1mk
 - ✓ **Uninterruptible power supply.**
- b) Explain the uses of UPS. 3mks
 - ✓ *It provides power temporarily in the event of power failure. This enables the user to save the work and shut down the computer using the correct procedure.*

- ✓ *It regulates the amount of power into the computer hence eliminating power surge and brown out.*
 - ✓ *It alerts the user when there is a blackout by producing a beeping sound. The user is made aware that the systems is now operating on battery and therefore have limited time to work on the computer.*
5. a) State three precautions that should be taken to protect data loss in a computer. 4mks
- ✓ *Install antivirus software and update it frequently.*
 - ✓ *Connect the computer to a power backup such as the UPS.*
 - ✓ *Shut down the computer using the correct procedure always.*
 - ✓ *Avoid careless handling and storage of the disk.*
- b) List **four** causes of computer data loss. 4mks
- ✓ *Power fluctuations.*
 - ✓ *Computer virus infection*
 - ✓ *Accidental deletion of files.*
 - ✓ *Improper shutting down of the computer.*
 - ✓ *Disk crashing*

6. List **five** differences between a microcomputer and a supercomputer. 5mks

supercomputers	Microcomputers
<i>Large in size</i>	<i>Smaller in size than a supercomputer.</i>
<i>Generate a great deal of heat</i>	<i>Generate less heat</i>
<i>Are kept in a special room with a special cooling system</i>	<i>Does nor have to be kept in a special room</i>
<i>Expensive</i>	<i>Affordable</i>
<i>Consume a lot of power</i>	<i>Consume less power</i>
<i>Faster in data processing</i>	<i>Slower in data processing</i>

7. a) List **three** ways by which computers can be classified. 3mks
- ✓ **functionality**
 - ✓ **purpose**
 - ✓ **physical size**

8. b) Give **two** examples classified under each category mentioned in question. 3mks

classification	computers
<i>Functionality</i>	<i>Analog, digital and hybrid</i>
<i>Physical size</i>	<i>Super computers, mainframe, minicomputers and microcomputers</i>
<i>purpose</i>	<i>General purpose ,dedicated and special purpose computers</i>

9. Suggest how computers have been made user-friendly for persons that are physically challenged in the following areas. 4mks

- a) Without hands
- ✓ *Use of voice recognition technology as input device.*
- b) Impaired vision
- ✓ *Use of devices that can capture data written in braille or use of Braille keyboard.*
 - ✓ *Use of voice recognition technology.*
 - ✓ *Use of sharp contrasting colours in designing the programs.*
 - ✓ *Use magnifies to enlarge output on the screen.*

✓ *Use of projectors*

10. a) Explain **three** health problems that can be caused by prolonged use of computers. 3mks

- **Backache: caused by improper sitting posture.**
- **Eye strain: caused by radiations emitted by the monitor.**
- **Neck ache: causes by putting the monitor above the eye level**

b) For each problem listed 10(a) mention one way in which they can be prevented. 3mks

problem	Prevention
Backache	Sit upright with your back resting on the backrest chair
Eye strain	Avoid using a flickering monitor. Regulate the amount of light from the monitor.
Neck ache	Position your monitor on the same level with yours eyes.

11. State the differences between impact and non-impact printers. 4mks

Impact printer	Non-impact printer
Slow in printing	Fast in printing
Uses ink ribbon	Uses electrostatic or thermal principles.
Multiple copy production is possible when carbonated paper is used.	Multiple copy production is almost impossible
Cheaper to maintain.	Costly to maintain
Noisy when printing since the print head comes into contact with the stationery	Quiet when printing since the print head does not come into contact with the stationery during printing

12. a) Define a keyboard. 2mks

A keyboard is an input device containing letters, numbers and other special keys used for data entry.

b) Mention two advantages of using a keyboard. 2mks

- **The keyboard is very reliable compared to other methods of text input.**
- **It is cost effective since it comes along with the computer.**
- **It is easier to learn**

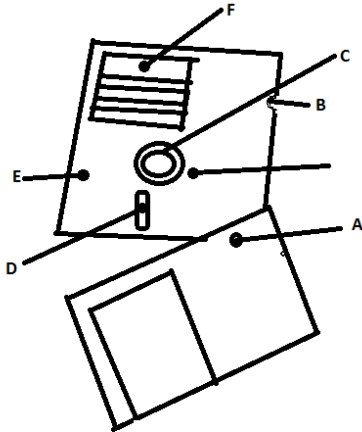
c) A student wants to upgrade her operating system. State five factors she should consider. 5mks

- ✓ **Hardware configuration of the computer.**
- ✓ **Application or software intended for the computer.**
- ✓ **User-friendliness of the operating system.**
- ✓ **Documentation available.**
- ✓ **Cost**
- ✓ **Reliability**
- ✓ **Security**
- ✓ **The computer architecture, for example, if is Aple, IBM, or IBM compatible.**

d) State four functions of an operating system. 4mks

- ✓ *Job scheduling*
- ✓ *Resource control and management*
- ✓ *Interrupt handling*
- ✓ *Memory management*
- ✓ *Input/output handling*
- ✓ *Error handling*

e) Use the diagram below to answer the questions that follow.



a) Name the device.

1mk

✓ *Diskette/floppy disk (3 ½ inch floppy disk or 3 ½ inch diskette)*

b) Name the parts labeled A to E.

5mks

- A. *Protective flap*
- B. *White protect tab/notch*
- C. *Hub ring*
- D. *Recording window (head slot)*
- E. *Plastic casting/jacket*
- F. *label*