COMPUTER STUDIES
Term 1 2024 Series
Form One
Answer all the questions

1. Define the following Terms as used in Computer studies
     (i) Data
- *Raw facts that do not have much meaning to the user*
     (ii) Information
- *Processed data that is meaningful to the user*
     (iii) ICT
- *It is the integration of information and telecommunication facilities /resources to facilitate transfer of information from one point to another*

Award 2marks each max 6

2. Mention five examples of peripheral devices
- *Monitor*
- *Speaker*
- *Mouse*
- *Keyboard*
- *Scanner*
- *Microphone*
- *Gamming pad*
- *Touchpad*
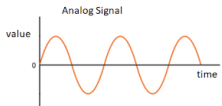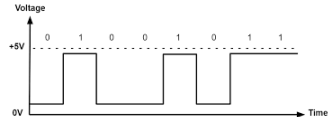- *Projector*
- *Printer*
- *Digitizer*
- *Camera*

Award 1mark each max 5

3. List five components/ devices housed within the computer system unit
- *Fan*
- *Heat sink*
- *Hard drive*
- *DVD drive*
- *RAM modules*
- *Expansion slot*
- *Motherboard*
- *CMOS battery*
- *Processor*

Award 1mark each max 5

4. With an aid of a diagram state the difference between analog and digital data

Analog	Digital
▪ *Continuous in nature*	▪ *Discrete in nature*

Award 2mark for description max 2
Award 1mark each for correct diagram max 2

5. Give five challenges experienced by users of first generation computer
- *Computer consumed a lot of power*
- *Computer generate a lot of heat*
- *Very large in size*
- *Very slow in processing*
- *Limited memory capacity*
- *Unreliable due breakdown of the vacuums tubes*
- *Limited programming capabilities*
- *Difficult to operate*

Award 1mark each max 5

6.
    (i) State five characteristics of fifth generation computers
- *Massive storage capacity*
- *Extremely fast when processing data*
- *Superior hardware and software*
- *Produce negligible heat*
- *Support artificial intelligence*
- *Relatively small in size*

Award 1 mark each max 5

    (ii) Mention three hardware technology difference between first generation and third generation computers
- *First generation computers used vacuum tubes while third generation computers used integrated circuit.*
- *First generation computers used punch cards for input while third generation computers used keyboards*
- *First generation computers used printouts for output while third generation computers used monitors*

Award 1mark each max 3

7. Mention four ways of controlling dust levels in a computer lab
- *Placing the door mats at the entrance*
- *Put curtains and blinders at the windows*
- *Clean the computer lab regularly*
- *Dust the computers and computer accessories using blower regularly*
- *Cover the computers with dust cover while not in use*

Award 1 mark each max 4

8.
    (i) Give four types of Keyboards
- *Onscreen keyboard*
- *Brailed Keyboard*
- *Flexible Keyboard*
- *Ergonomic Keyboard*
- *Wireless Keyboard*
- *Traditional Keyboard*

Award 1 mark each max 4

    (ii) State the functions of the following mouse skills

        (a) Double click
- *Open the selected item folder, folder or application*
        (b) Right click
- *Opens the context menu, which provides operations that pertain to the menu*
        (c) Drag and Drop
- *Moves a computer files folder or images from one place to another by clicking on them with the mouse and moving them across the screen.*

Award 2 marks each max 6

9. State five ways of enforcing security in computer laboratories established in learning institutions
   (5marks)
- *Have grilled doors and windows*
- *Employ security officer*
- *Install CCTV cameras*
- *Install Alarm systems*
- *Use of swipe cards to restrict access by unauthorized users*
- *Use of Biometric systems for user authentication*
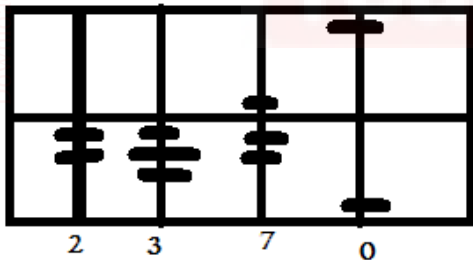- *Use tracking system*

Award 1mark each max 5

10. Mention three functions of Uninterruptible Power Supply
- *Provide temporary power when there is a power blackout*
- *Warn the user by beeping to notify him or her about the power loss*
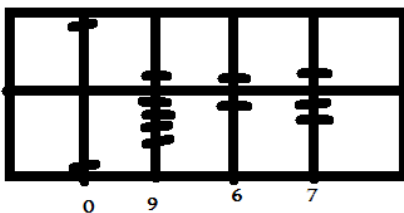- *Regulate power from unstable source*

Award 1mark each max 3

11. Use abacus to represent the following numbers

    (i)   2370

Award 2marks for correct diagram max 2

    (ii)   0967

Award 2marks for correct diagram max 2

12.
    (i) Name three electronic pathway used by computer components mounted on motherboard to exchange signals

- *Control bus*
- *Address bus*
- *Data bus*

Award 1mark each max 3

(ii) State three characteristics of Dynamic Random Access Memory

- *DRAM is slower*
- *DRAM is cheap*
- *DRAM require refreshing*
- *DRAM is constructed using Capacitors and Transistors*
- *DRAM require more power*

Award 1 mark each max 3

13. List three examples of toggle keys found on a standard keyboard
- *Num Lock*
- *Caps Lock*
- *Scroll lock*
- *Insert Key*

Award 1 mark each max 3

14. Identify the function of each key represented by the symbols shown below

(i)

- *Move the cursor on a straight line at a specific interval*

Award 2marks max 2

(ii)

- *Delete characters from right to left*

Award 2marks max 2

15. Mention five disadvantages of using computers in organizations
- *Power dependent*
- *Security threats*
- *Computer breakdown*
- *Create unemployment*
- *High initial cost*

Award 1 mark each max 5

16.

(i) Why is Charles Babbage considered as the father of computers
- *Considered as the father of computer because the idea or concept used in Analytical and difference engine were borrowed and used in developing modern computers*

Award 2marks max 2

(ii) Name three non-electronic devices used to perform arithmetic manipulations before electronic computer were invented
- *Napier's Bone*
- *Abacus*

- *Slide Rule*
- *Pascaline Machine*
- *Weaving loom*

Award 1 mark each max 3

17. State five ways of using computers in learning institutions like schools
- *Teachers communicate with parents via email, whattapps, email and bulk sms*
- *CCTV cameras are installed in school for security and for monitoring students*
- *Computer program like Rolan, Spreadsheet are used to store and analyze academic data*
- *Student do research on the internet*
- *Computer simulation are used to carry experiments*
- *Parents make payments via e-platform*
- *Computer Aided learning*
- *Computer Aided Instruction*
- *E-learning*
- *Prepare teaching time table using Timetabling programs*
- *Prepare and keep books of account using accounting software*
- *Use of Biometric systems to capture attendance*

Award 1 mark each max 5

18. List five input devices that capture directly from source
- *Camera*
- *QR code scanner*
- *Finger Print Scanner*
- *Optical Character Recognition*
- *Optical Mark Recognition*
- *Optical Barcode Recognition*
- *Magnetic Ink Character Recognition*
- *Magnetic Stripe Recognition*

Award 1 mark each max 5

19. Name three Arithmetic and Logical operations undertaken by the ALU **(6marks)**
Arithmetic Operation
- *Addition*
- *Subtraction*
- *Multiplication*
- *Division*
Logical Operation
- *Sorting*
- *Comparing values*
- *Matching*

Award 1mark each for Arithmetic operation max 3
Award 1 mark each for logical operation max 3

20. State two ways in which dampness affects computers that are installed in the Laboratory
- *High humidity may cause rusting of metallic parts of the computers*
- *Very low humidity may cause accumulation of static electricity which is likely to damage computer circuitry*

Award 1mark each max 2