

# MARKING SCHEME

840/1  
COMPUTER STUDIES  
Paper 1  
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**KIBULI SECONDARY SCHOOL MOCK EXAMINATIONS 2006**

**COMPUTER STUDIES.**

1. All these are data storage devices except:  
A. Floppy diskette.  
B. Hard drive.  
C. Control unit.  
D. Zip drive.
2. Which one of these is odd?  
A. Microsoft word  
B. Microsoft Access  
C. Epi Info  
D. UNIX
3. A.....is a primary database structure.  
A. table  
B. report  
C. form  
D. query
4. The operating system is not directly involved in one of these tasks.  
A. File management  
B. Formatting a diskette  
C. Scheduling of print jobs  
D. Displaying a web pag
5. Which key combination on a keyboard do you use to open up a file in MS-Word  
A. File  
B. Ctrl file  
C. Alt F  
D. Alt O
6. This component of the Central Processing Unit (CPU) carries out all the logic and mathematical operations.  
A. ALU  
B. System clock  
C. Register  
D. Control unit
7. Which of the following set of devices does not belong to same group?  
A. Mouse, keyboard, joystick.  
B. Plotter, Printer, Scanner  
C. Diskettes, Hard disks, Zip drives  
D. ALU, Control unit, Primary Storage

8. .... is a group of commands available to the CPU which determines the basic computer operations that can be performed.
- A. Instruction set
  - B. Operating system
  - C. Rom Bios
  - D. Hard disk
9. Which of the following is not a computer peripheral?
- A. Monitor
  - B. Printer
  - C. CPU
  - D. Keyboard
10. A ..... is not an example of an output device.
- A. Pinter
  - B. Plotter
  - C. monitor
  - D. keyboard
11. Which of the following is not a programming tool?
- A. Debugger
  - B. An interpreter
  - C. Notepad
  - D. A compiler
12. Okello intends to draw up an inventory. Which of the following is the most suitable software to use?
- A. Ms-Word
  - B. C++
  - C. Ms -Excel
  - D. Pascal.
13. A ..... makes it easy to find your way round the internet.
- A. Network browser
  - B. Microsoft word
  - C. compiler
  - D. digital camera
- 14 Slides as an output are displayed using ..... software.
- A. A word processing
  - B. An internet explorer
  - C. A spreadsheets
  - D. A presentstion

- 15 Which of the following is not a storage device?
- A. Disk drive A
  - B. Disk drive B
  - C. Motherboard
  - D. CD-ROM
16. The process of starting a computer is referred to as
- A. surfing
  - B. booting
  - C. blocking
  - D. clicking
17. The output displayed on the screen is termed as
- A. Photocopy.
  - B. Soft-copy.
  - C. Master-copy.
  - D. Hard-copy.
18. One of these is a pointing device used to manipulate on screen objects.
- A. CD-ROM
  - B. Digital camera
  - C. scanner
  - D. mouse
19. Which of the following device can be used to convert images or text on documents into electronic format that a computer can display, store and print?
- paper Track ball
- A. scanner
  - B. monitor
  - C. CD-Rom drive
  - D. All of them
20. The option on the menu bar which enables one to name a document and store it on a storage device using another name is
- A. save
  - B. save as
  - C. edit
  - D. new

## SECTION B (60 MARKS)

Answer any **four** questions. All the working **must** be done in the space provided.

21. (a) (i) Define the term **Computer Virus**.

(02 marks)

### **SOLUTION:**

- ✓ A program or piece of code that is loaded onto your computer without your knowledge and runs against your wishes.
- ✓ A dangerous computer program with the characteristic feature of being able to generate copies of itself, and thereby spreading
- ✓ A computer Virus is a destructive programme that destroys files or folders on the computer.

- (ii) Identify any three possible symptoms of computer viruses.

(03 marks)

### **SOLUTION:**

- ✓ When some of the computer programmes get lost
- ✓ Some times the computer hangs (not responding to the commands)
- ✓ It can even refuse to boot.
- ✓ Most of the saved files or folders get lost.

- (b) State two ways in which one can guard a computer system against viruses.

(02 marks)

### **SOLUTION:**

- ✓ By scanning the floppy Diskettes before using them.
- ✓ By installing the scan software to scan the computer every week
- ✓ By not downloading every information you get from the net

- (c) (i) What do you understand by the term screen saver as applied to computers?

(02 marks)

**SOLUTION:**

- ✓ A small program that takes over the display screen if there are no keystrokes or mouse movements for a specified duration.
- ✓ A screen saver is an animated image that is activated on a personal computer display when no user activity has been sensed for a certain time.

- (ii) State two applications of a screen sever programme.

(02 marks)

**SOLUTION:**

- ✓ XScreenSaver application
- ✓ Desktop system

- (iii) State two precautions that should be taken when cleaning a screen display area.

(02 marks)

**SOLUTION:**

- ✓ Make sure that you use a clean cloth.
- ✓ Never use rough materials when cleaning the screen.
- ✓ Apply the liquid cleaner to the cloth you are using.

- (d) State any two steps that must be followed to safely shut down a computer from the Microsoft Word file.

(02 marks)

**SOLUTION:**

- ✓ First save whatever you have typed.
- ✓ Click on the close button from the tool bar.
- ✓ Click on the start button and select shut down.

22. (a) Define the following terms:

(i) Warm booting

(01 mark)

**SOLUTION:**

- ✓ Booting is referred to as starting or restarting a computer.

(ii) Monitor

(01 mark)

**SOLUTION**

- ✓ A monitor is an output device that displays the processed information on the screen.

(iii) Folder

(01 mark)

**SOLUTION:**

- ✓ Folders are used to store files on your hard drive. Folders allow people to organize their files in a way that makes sense to them.

(iv) Artificial intelligence

(01 mark)

**SOLUTION:**

- ✓ The branch of computer science concerned with making computers behave like humans. Artificial intelligence includes games playing, expert systems, natural language, robotics.

- (b) (i) List any two ways of starting an application in Windows.

(02 marks)

**SOLUTION:**

- ✓ Click on the start button.
- ✓ Click on programs and select any application of your choice

**OR**

- ✓ Press the window key on the keyboard
- ✓ Select programs using the direction keys and select any application of your choice

- (ii) What is the windows utility used to view contents of a floppy disk, hard and network drives?

(01 mark)

**SOLUTION:**

- ✓ My computer

- (iii) What must be done to floppy disks before they are used?

(01 mark)

**SOLUTION:**

- ✓ It must be formatted.

- (iv) What do we call the basic applications that are built into windows that allow us to perform tasks like drawing or text editing?

(01 mark)

**SOLUTION:**

- ✓ Tool bars



- (c) (i) CD-ROM stands for.

(01 mark)

**SOLUTION:**

- ✓ Compact Disk Read Only Memory

- (ii) State two ways in which a CD-ROM can be useful in education.

(02 marks)

**SOLUTION:**

- ✓ A CD-ROM drive uses an optically read, plastic coated disk. The information is recorded on the surface of the disk
- ✓ For saving documents.
- ✓ You can print from a printer on campus which is connected to the Open Printer System.

- (iii) State three precautions for correct handling of diskettes.

(03 marks)

**SOLUTION**

- ✓ Do not put the diskette in direct sun light, dust or near a magnetic environment.
- ✓ They should be kept out of reach to children.
- ✓ Never bend a floppy disk.
- ✓ It should be put back in its cover box when not in use.
- ✓ Write on the label before putting it on the floppy disk.

23. (a) Write the following abbreviations in full.

(04 marks)

**SOLUTION:**

FTP. File Transfer Protocol  
CPU. Central Processing Unit

IP. Internet Protocol  
I.C. Integrated Circuit

- (b) Define the following terms:  
Hard copy.

(01 mark)

**SOLUTION:**

- ✓ Hardcopy means printed output.
- ✓ The printout of a computer file or the typewritten copy submitted to a printer to be typeset.
- ✓ Printed material, as opposed to information in microform or digital (computerized) format.

**Soft copy.**

(01 mark)

**SOLUTION:**

- ✓ A soft copy is an electronic copy of some type of data, such as a file viewed on a computer's display

**Bug.**

(01 mark)

**SOLUTION**

- ✓ An error or defect in software or hardware that causes a program to malfunction.  
Often a bug is caused by conflicts in software

- (c) Explain the meaning of the following:
- (i) HTTP.

(02 marks)

**SOLUTION:**

- ✓ (HyperText Transfer Protocol) The Web's communication standard, referenced in the http:// that appears at the beginning of every web page address

(ii) HTML.

(02 marks)

**SOLUTION:**

- ✓ Hypertext Markup Language is the authoring software language used on the Internet's World Wide Web. HTML is used for creating World Wide Web pages.

(d) Fill in the gaps in the table below.

(04 marks)

**SOLUTION:**

Task	Type of software that can be used.
(i) <u>Typing documents</u>	Adobe Photoshop, Paintbrush, MS-Word.
(ii) Present a lecture	<u>MS-power point</u>
(iii) <u>Calculations</u>	MS-Excel
(iv) Reading information on the Internet	<u>Internet browser</u>

24. (a) Why is the binary number system used for computer?

(02 marks)

**SOLUTION:**

✓ Because it's the language that a computer can understand.

(b) Convert the

(i) binary number 10101010 to its decimal equivalent.

(02 marks)

(ii) decimal number 121 to its binary equivalent.

(02 marks)

(c) (i) Explain the meaning of the term control unit as used in a computer system.

(02 marks)

**SOLUTION:**

✓ That portion of hardware in the CPU that directs sequence of operations, interprets coded instructions, and initiates proper commands to other parts of the computer.

(ii) State any two functions of the control unit.

(02 marks)

**SOLUTION:**

✓ Carries out all the logic and mathematical operations.

(iii) Define a byte

(01 mark)

**SOLUTION:**

- ✓ A byte is a set of 8 bits that represent a single character in the computer's memory.

(d) Distinguish between ROM and RAM.

(04 marks)

**SOLUTION:**

**ROM: Read Only Memory**

- ✓ A memory chip that permanently stores instructions and data.
- ✓ Hardware that allows fast access to permanently stored data but prevents addition to or modification of the data.

- ✓ **RAM: Random Access Memory**

RAM (random access memory) is the place in a computer where the operating system, application programs, and data in current use are kept so that they can be quickly reached by the computer's processor.

(25) (a) (i) Define the term band width.

(01 marks)

**SOLUTION:**

- ✓ Bandwidth refers to how much data you can send through a network or modem connection.

(ii) List **three** communication media.

(03 marks)

**SOLUTION:**

- ✓ Twisted pair cable
- ✓ Coaxial cable

- ✓ Fiber-optic
- ✓ Microwave
- ✓ Satellite

(b) Below are specifications for two different types of computers **A** and **B**.

**Specification:**

	Computer A	Computer B
<b>RAM</b>	<b>64MB</b>	<b>128MB</b>
<b>HARD DISK</b>	<b>700 MB</b>	<b>20 GB</b>
<b>SPEED</b>	<b>800 MHz</b>	<b>1 GHz</b>
<b>COMPUTER WORD:</b>	<b>32-bit</b>	<b>64 – bit</b>
<b>NETWORK CARD</b>	<b>NO</b>	<b>YES</b>
<b>VIDEO CARD</b>	<b>YES</b>	<b>YES</b>

Study them and answer the questions that follow:

(i) Which computer is faster in processing data?

(01 marks)

**SOLUTION:**

- ✓ Abbreviation for ***gigahertz***. One GHz represents 1 billion cycles per second. The speed of microprocessors, called the clock speed, often is measured in gigahertz. For example, a microprocessor that runs at 200 GHz executes 200 billion cycles per second.
- ✓ Abbreviation for ***megahertz***. One MHz represents one million cycles per second. The speed of microprocessors, called the clock speed, is measured in megahertz. For example, a microprocessor that runs at 200 MHz executes 200 million cycles per second.

❖ **Therefore computer B is faster in processing data.**

- (ii) How many bytes can computer A handle at the same time?  
(02 marks)

**SOLUTION:**

- ✓ Computer A can handle 4 bytes at the same time.
- (iii) Which computer is more likely to be connected to a LAN and why?  
(02 marks)

**SOLUTION:**

- ✓ Its computer B.
- ✓ Because it has a network card

- (c) Define the following terms:
- (i) Software.

(01 mark)

**SOLUTION:**

- ✓ Written coded commands that tell a computer what tasks to perform. For example, Word, PhotoShop, Picture Easy, and PhotoDeluxe are software programs.
- ✓ A set of computer programs, procedures, and associated documentation concerned with the operation of a data processing system; e.g. , compilers, library routines, manuals, and circuit diagrams. [JP1] 2.  
Information (generally copyrightable) that may provide instructions for computers  
Coded instructions (programs) that make a computer do useful work.

(ii) Hardware.

(01 mark)

**SOLUTION:**

- ✓ Refers to objects that you can actually touch, like disks, disk drives, display screens, keyboards, printers, boards, and chips. In contrast, software is untouchable
- ✓ Hardware is the physical aspect of computers, telecommunications and other information technology devices.

(iii) Application programme.

(01 mark)

**SOLUTION:**

- ✓ a program that gives a computer instructions that provide the user with tools to accomplish a task.

(d) Distinguish between down loading and uploading a computer

(03 marks)

**SOLUTION:**

- ✓ **Downloading:** To copy data (usually an entire file) from a main source to a peripheral device.
- ✓ To transfer files or data from one computer to another. To download means to receive; to upload means to transmit.

***While***

- ✓ **Uploading:** To transmit data from a computer to a bulletin board service, mainframe, or network. For example, if you use a personal computer to log on to a network and you want to send files across the network, you must upload the files from your PC to the network.



### SECTION C (20 MARKS)

*Answer only **one** question from this section. Answers to the question must be done in the answer booklet provided.*

26. Explain why a school should have a web-site.

(20 marks)

#### **SOLUTION:**

- ✓ A web site can do a lot for you and your business.
- ✓ A web site is an invaluable business tool for both you and your clients.
- ✓ Your web site enables you to make, as much information available to customers as you think is needed.
- ✓ It can enable customers to find out all the information they need about your products.

#### **Such as:**

- ✓ The service you provide.
- ✓ The product you offer.
- ✓ Your products images with specs & prices.
- ✓ The location of your business & where you offer your service.
- ✓ Special offers to your clients.
- ✓ A web site can give also contact facilities e-mail, phone, fax... so that your clients can reach you easily
- ✓

28. Give your arguments in favour and against the impact of computers in our society to.

(20 marks)

#### **SOLUTION:**

##### **1. Simultaneous, remote access to patient data**

Multiple clinicians can access a patient's record simultaneously from many locations. With the recent advent of secure data transmission over the web, clinicians can now review and edit patient records from anywhere in the world.

##### **2. Legibility of record**

Handwritten charts are notoriously difficult to read. On-screen or printed text is often far more legible than handwriting.

3. **Safer data**  
New users often fret over the potential for lost data due to system malfunctions. With a well designed and tested backup scheme and disaster recovery system, a computer-based record is much more reliable and less prone to data loss than conventional paper-based records.
4. **Patient data confidentiality**  
Record access can be restricted and monitored automatically; each user can have specific levels of access to various data types. Audit logs can be screened electronically to look for statistical abnormalities which may signal unauthorized record accesses.
5. **Flexible data layout**  
Users can have a separate data display and data entry screen, recall data in any order (e.g., chronologically or in reverse chronological order), and create disease or condition specific data review formats. Paper records suffer from temporal constraints in the sense that data are fixed in the exact sequence in which they were recorded.
6. **Integration with other information resources**  
Once in electronic form a patient's data can be linked to reference information stored and maintained locally or, via the internet, on a computer half-way around the world.
7. **Incorporation of electronic data**  
Physiologic data can be captured automatically from bedside monitors, laboratory analyzers, and imaging devices located throughout the healthcare enterprise. Such data capture is free from the uncertainties and unreliabilities of human data entry efforts.
8. **Continuous data processing**  
Provided that data are structured and coded in an unambiguous fashion, programs can continuously check and filter the data for errors, summarize and interpret data, and issue alerts and/or reminders to clinicians following the detection of potentially life-threatening events.
9. **Assisted search**  
In a small fraction of the time required using a manual system, computers can search free-text (or as Octo Barnett terms it "expensive text") as well as structured data to find a specific data value or to determine whether a particular item has ever been recorded. However, unstructured text must be searched with care since clinicians use many different words and phrases to express the same clinical concept.
10. **Greater range of data output modalities**  
Data can be presented to users via computer-generated voice, two-way pagers, or email, for example. In addition, instructions can be sent to external, computer-controlled devices like automatic pill dispensers, or infusion pumps which will then carry out the clinician's intended action. Patient-specific alarms can flash lights, ring bells, or buzz buzzers. Finally, multiple single plane images can be transformed back into a single 3-dimensional image and superimposed on the surgeon's field of view.

### **11. Tailored paper output**

Data can be printed using a variety of fonts, colors, and sizes to help focus the clinician's attention on the most important data. In addition, images can be combined with textual data to create a more complete "picture" of the patient's condition.

### **12. Always up to date**

If the electronic record is integrated, then all data is immediately available to all practitioners regardless of their physical location as soon as the data is entered into the computer. This eliminates the problems associated with several physicians, each keeping a small portion of a patient's medical record in their offices and transferring these paper-based records back and forth as they consult.

## **DISADVANTAGES:**

- Discouraging people with less technology advantages.
- Internet availability.
- Connection tariffs.
- Speed of technologies advance outsmart the users' possibilities.
- Technical disabilities need more acquired knowledge.
- Centres on one specialisation at a time.
- Learning a lot in a particular study field is not necessarily useful.
- Non-availability of on-line reference material.
- Many institutions does not recognise a specific qualification.
- English knowledge must be satisfactory.
- Overestimation of time available.
- learners experience frustration going through all their mail messages.

### **Limitations of Computers**

- Computer networks are costly to develop.
- Technology is changing rapidly.
- Widespread computer illiteracy still exist.
- Students must be highly motivated and proficient in computer operation.

### **Disadvantages of Computer Conferencing**

- Problems with reliable access to the Internet.
- Learning curve and time investments can be very steep.
- Software configurations do not necessarily communicate with each other.
- Students do not always have a good knowledge of telecommunications software.
- Students have to remember to log in frequently.
- Misunderstandings can arise quickly and be difficult and time-consuming to solve.

