

S850/1

SUBSIDIARY ICT

Paper 1

2 hours 30 minutes

MWALIMU EXAMINATIONS BUREAU

Uganda Advanced Certificate of Education

SUBSIDIARY ICT I

PRE REGISTRATION EXAMINATIONS, 2016

Paper 1

2 Hours 30 Minutes

MARKING GUIDE:

1. (a). Give **two** ways IT is used to improve education and instruction in your school. (02 marks)
- **ICTs enable research by students through the use of internet to access information**
 - **Studying online by attending online Universities that offer online degrees and also distance learning (Cyber classes).**
 - **Teachers/instructors can use audio-visual method of teaching to ease students understanding of complex topics**
- (b). State **two** challenges of using IT at home. (02 marks)
- **Its exposes the youth to pornographic content**
 - **Its expensive since it requires electricity to run**
- (c). Mention **one** advantage of using IT in business. (01 mark)
- **Enormous amounts of data can be stored permanently for future use**
 - **Computers can process large amounts of data and generate error free results provided the data is entered correctly**
 - **Large number tasks can be processed at very fast processing speed eg. mathematical calculations**
2. For each of the following situations, state the most appropriate hardware device to use;
- (a). Making a hard copy of a document (1 mark)
- **printer**
- (b). Converting a document on paper into a digital format (1 mark)
- **scanner**
- (c). The salesman who needs to determine the price of a commodity at the supermarket
- **Barcode reader**
- (d). An input device to play a computer game (1 mark)
- **joystick**
- (e). To accurately print out vector graphics (1 mark)
- **plotter**
3. (a). Define a computer laboratory. (01 mark)
- **A computer laboratory is a room that is specially designed and prepared to facilitate the installation of computers and to provide a safe and conducive environment for storing and using the computers for learning purposes. e.g.[teaching & learning practical skills, internet surfing etc.]**
- (b). State two measures employed to ensure safety of the following while in a computer laboratory:
- (i). **Users.** (02 marks)
- **All power cables must be properly insulated and laid away from pathways in the room.**
 - **Computer laboratory must be well lit with appropriate wall paints to avoid eye strain, headaches, stress and fatigue and always fit radiation filter screens to reduce light that reaches the eyes**
 - **The seat for the user must be comfortable and have a straight backrest that allows someone to sit upright.**
- (ii). **Hardware** (02 marks)
- **Avoid overcrowding of machines and users.**
 - **Have good air circulation in the computer to avoid overheating.**
 - **Use Desktop locks, system unit enclosures and laptop locks.**
 - **Use water proof covers to protect computers from moisture, water and liquids**
4. (a). Write the acronym **CPU** in full. (01 mark)
- **Central processing unit**

- (b). Mention any **two** basic parts that make up the CPU. (02 marks)
- **Control unit**
 - **Arithmetic logic unit**
 - **registers**
- (c). (i). Give **one** way performance of the CPU can be improved. (01 mark)
- **Defrag the hard drive**
 - **Install Anti-virus Software**

NB:

Most of the computer problems are the result of viruses, spywares and the registry overload. If proper care is taken in addition to hardware maintenance check, computer performance can be stabilized

- (ii). Apart from the CPU, state **one** common system requirement for using a specific program or hardware component. (01 mark)

- **RAM**

5. (a). Distinguish between **hard** and **soft copy**. (01 mark)

- **This is unprinted digital document file which can be viewed on the display screen or in the video or audio form**
- **While**
- **Is a permanent reproducible copy in the form of tangible object of any media that can be directly used by a user.**

- (b). Give **two** advantages of keeping computer files in electronic form over print outs. (02 marks)

- **Consume less storage space**
- **Can easily be edited and formatted**

- (c). In relation to computer operations, state why each of the following is used:

- (i). **Print Preview**. (01 mark)

Helps the user to see how their work will look like on the actual paper before its printed.

- (ii). **Save As**. (01 mark)

- **Save as helps a user to save his/her file on a specific storage location.**

6. (a) Given the following information below;

A	Symantic Antivirus	D	E-mail
B	Quick Books	E	Compiler
C	Unix	F	PASCAL

Select the information from the table above which matches with the following ..,below;

- (i) Operating system **unix**
- (ii) Utility software.....**symantic antivirus**
- (iii) Packaged software.....**quick books**
- (iv) Programming language...**PASCAL**
- (v) Communication software...**E-mail**

7. (a). Define the term **data back-up**. (01mark)
- This is the process of getting the duplicate copy of the original data
- (b). Give two reasons for carrying out a data back-up by an organisation apart from ensuring data security. (02 marks)
- Simple recovery
 - Computer failure
 - Save time and costs of redoing the work in case of breakdown.
- (c). Apart from carrying out data back-ups, mention one way data can be kept away from damage. (02 marks)
- Encryption
 - Installing an anti-virus
8. (a). Distinguish between a **file** and a **folder**. (01 mark)
- A file is an item that contains information for example, text or music or image.
- While
- A folder is a virtual container within a graphical user interface, in which groups of computer files and possibly other directories can be kept and organized
- (b). In relation to file management, what is the importance of the following components:
- (i). **Path delimiter**. (01 mark)
- specifies a unique location of a file in a file system
- (ii). **File extension**. (01 mark)
- These are letters at the end of a file name after the period that identifies the type of an application used to create a given document.
- (c). Give **two** causes of file loss in a computing environment. (02 marks)
- Computer virus
 - Deletion
9. (a). What is a desktop publishing program (**DTP**) **program**? (01 mark)
- Is one that uses electronic(digital) content to create and reproduce text and graphic images
- (b). Mention any **two** publications a DTP can appropriately reproduce. (02 marks)
- Calendars
 - Brochures
 - Flyers
 - Certificates
- (c). State a DTP program that uses the following file extension:
- (i) **.ai** adobe illustrator (01 mark)
- (ii). **.pub** .Microsoft publisher (01 mark)
- 10.(a). Define a **computer network**. (01 mark)
- Is a collection of two or more computing devices that are linked together to share resources like printers and CD/DVD drives, exchange files or allow electronic communication
- (b). State **two** dangers of using a wireless network connection. (02 marks)
- Speed
 - Reliability
 - Security
 - Reduced Management Control
- (c). Briefly, describe **one** function of the following in a networking environment:
- (i). **Router**. (01 mark)
- Traffic direction on the internet
 - Forwarding data packets between computers
- (ii). **Hub**. (01 mark)
- Hubs functions as the central connection point for LAN.

11.(a). Mention **one** practical activity carried out by the following personnel in the computing environment. (05 marks)

(a). **Network Administrator.**

- Installation, configuration and supporting an organisation's LAN

(b). **Systems Administrator.**

- Installation, supporting and maintaining servers or other computer systems

(c). **Website Developer.**

- Design, build and maintain websites and web applications to meet their client's needs.

(d). **Computer Instructor.**

- Design and develop appropriate computer instructional material
- Teach learners how to use computers

(e). **Information System Manager.**

- Provide the ICT infrastructure for an organisation

12. Write **True (T)** or **False (F)** against each of the following statements (a) to (e).

	Item	T/F
(a).	I can create a new e-mail address using the sign-in facility.	F
(b).	HTTP is a standard that allows a user to access electronic pages from a web server.	T
(c).	Ordinary post office mail is more secure than e-mails.	F
(d).	Protocols set a required standard for use of a network and its resources.	T
(e).	A distributed database structure allows customers to carryout online transactions.	T

13. You are given the following *URL*; <http://www.jjebexaminations.ac.ug/physics.pdf>

(a). Write **WWW** in full. (01 mark)

- World wide web

(b). State the **URL** host name. (01 mark)

- jjebexaminations

(c). What is the *Second Top Level Domain* for the **URL**? (01mark)

- .ug

(d). Write down the page label being displayed. (01 mark)

- physics

(e). Suggest **one** example of a browser that you could use to open the above **URL**.

(01 mark)

- Chrome
- Firefox
- Explorer

14.(a). Give the difference between **application** and **system software**. (01 mark)

- Application software is computer software designed to help the user to perform specific tasks. **WHILE**
- System software is computer software designed to operate the computer hardware and to provide a platform for running application software

(b). Mention any **two** branches of system software. (02 marks)

- Operating system
- Utility programmes
- Device driver

- (c). State **one** effect of the following to a computer file:
- (i). **File Compression.** (01 mark)
- The logical size of a **file** is reduced to save disk space for easier and faster transmission over a network
- (ii). **Antivirus program.** (01 mark)
- Scans the computer for virus, deletes the virus and then repairs the damaged files
15. Hilda prefers to store her documents online rather than removable devices.
- (a). What is **online storage.** (01 mark)
- Online storage (Cloud storage) refers to the practice of storing electronic data with a third party service accessed via the Internet
- (b). State **two** examples of cyber (online) storage facilities you know. (02 marks)
- Dropbox
 - Google drive
 - Microsoft OneDrive
 - iCloud
- (c). Give **one** advantage of using cyber storage over removable devices. (01 mark)
- Accessibility
 - Cost saving since most of them are free.
- (d). How can Hilda ensure security of her data held by online data banks? (01 mark)
- Having a strong password.
- 16.(a). Give the difference between **editing** and **formatting** of a document. (01 mark)
- With editing, you change the contents of the document for example if you change any character to another character **WHILE**
 - Formatting involves changing how the contents of a document look like for example, If you change the appearance of any character, like bold, size, color, underline, subscript.
- (b). Mention **two** word processing program facilities used to:
- (i). **Edit** a document. (02 marks)
- Copy, paste, Thesaurus
- (ii). **Format** a document. (02 marks)
- Bold, underline,
- 17.(a) Mention any **two** devices that can be used to aid wireless connection. (02 marks)
- Wireless router
 - Satellite dish
 - Wireless card
- (b). State **two** practical uses of GPS by a school. (02 marks)
- Keeping track of valuable belongings
 - Help locate places on a tour
- (c). List **one** component of a communication channel. (01 mark)
- Communication devices (sender and receiver)
 - Communication medium
 - Protocol
- 18.(a). State **two** examples of pointing hardware devices. (02 marks)
- Mouse
 - Trackball

(b). Give **two** advantages of using a **hard disk** over a **floppy diskette**. (02 marks)

- HDD are contained within computers so can't be damaged easily as compared to floppy disks which can be removed easily.
- HDD contain more space as compared to floppy disks which are only 1.44Mb.
- HDD have a high read-write speed as compared to floppy disks

(c). Outline **one** way you can care and maintain a hard disk. (01 mark)

Keeping it away from dust.

19.(a). State **two** activities you can put a computer to for survival. (02 marks)






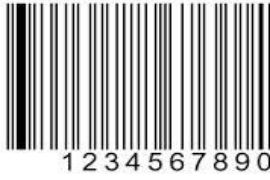
- Music recording
- Secretarial and printing

(b). Your Dad wants to buy a computer. State **two** factors you will encourage your Dad not to ignore. (02 marks)

- RAM size
- Processor type and speed
- Size of hard disk

(c). Suggest to your Dad **one** physical threat he should expect while using his laptop. (01 mark)

20.Using the following, answer questions (a) to (c) below.

		
<i>Figure 1</i>	<i>Figure 2</i>	<i>Figure 3</i>
		
<i>Figure 4</i>	<i>Figure 5</i>	<i>Figure 6</i>

(a). Identify items labelled:

(i). **Figure 3** (01 mark)

- RAM chip

(ii) **Figure 6** (01 mark)

- Barcodes

(b). Give **one** function of the component labelled **Figure 1** to a computer. (01 mark)

- Supply power to all internal components in the system unit
- Regulates and converts Ac to DC currents

(c). I can connect device labelled figure 5 to device labelled figure 4 using USB ports. (02 marks)

END