

RESOURCEFUL GUIDE

TO

SUBSIDIARY-ICT 850/1



COMPUTER STUDIES DEPARTMENT

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SET ONE:

1. (a). Write the acronym ICT in full. (01 mark)
- ✓ *Information, Communications Technology*
- (b). Mention two ways ICT can be used to improve teaching and learning. (02 marks)
- ✓ Computer-based training, which includes:
 - ✓ Computer-Assisted Instructions (CAI), so that teachers can use computers and other IT equipment to present teaching materials in a more interesting way.
 - ✓ Computer-Assisted Learning (CAL), so that students can use computers and appropriate software to learn at their own pace.
 - ✓ Computer-Assisted Assessment (CAA), which may reduce the time and labor to mark the answer scripts.
 - ✓ Distance learning through computer-based training and Web-based training.
 - ✓ Simulations of experiments or real-life situations that may be hazardous.
 - ✓ Electronic library system for searching, borrowing, and returning books.
 - ✓ The School Administration and Management System (SAMS) for keeping records of students and producing report cards or other related documents.
 - ✓ Edutainment, which is a type of educational software that combines education with entertainment.
- (c). Give two ways ICT has affected work today. (02 marks)
- ✓ *It has led to unemployment among workers.*
 - ✓ *It has led to job displacement.*
 - ✓ *It has improved work space environment and efficiency.*
 - ✓ *It has led to working from home away from standard offices (telecommuting).*
 - ✓ *It has increases presence of workflows 24/7.*
 - ✓ *It has led to isolation of workers.*
 - ✓ *It has led to loss of face - to - face interaction amongst workers even in the same company*
2. (a). Give the difference between soft copy and hard copy. (02 marks)
- ✓ *Soft copy refers to a copy of work still on a computer or stored in a digital or electronic form, while, Hard copy refers to a copy of work printed and kept in a more permanent way of physical media like printing papers, plastic plates, e.t.c.*

(b). **Mention two examples of display devices commonly used today.** (02 marks)

- ✓ *Monitor.*
- ✓ *Projector.*
- ✓ *Smart board.*

(c). **State one advantage of using a softcopy over a hard copy.** (01 mark)

- ✓ *It stores very little space*
- ✓ *It is a form that allows formatting and editing of content.*
- ✓ *It can easily be transported from place to place.*

3. (a). **Mention any three components found inside a computer's system unit.** (03 marks)

- | | |
|-----------------------------------|---------------------------|
| ✓ <i>Central Processing Unit.</i> | ✓ <i>Buses.</i> |
| ✓ <i>Mother board.</i> | ✓ <i>Expansion slots.</i> |
| ✓ <i>Memory chips.</i> | ✓ <i>Power unit.</i> |
| ✓ <i>ROM BIOS.</i> | ✓ <i>Drives.</i> |
| ✓ <i>CMOS battery.</i> | |

(b). (i). **What are computer peripheral devices?** (01 mark)

- ✓ *These are external hardware components that are connected onto a systems case.*

(ii). **State one example of a peripheral device.** (01 mark)

- | | |
|--------------------------|-------------------------------------|
| ✓ <i>Speakers.</i> | ✓ <i>Printer.</i> |
| ✓ <i>Barcode reader.</i> | ✓ <i>Projector.</i> |
| ✓ <i>MIDI.</i> | ✓ <i>Digital camera.</i> |
| ✓ <i>OCR</i> | ✓ <i>QR code reader.</i> |
| ✓ <i>OMR</i> | ✓ <i>Smart / Swipe card reader.</i> |
| ✓ <i>Scanner.</i> | |

4. (a). **Define a computer laboratory.** (02 marks)

- ✓ *A computer laboratory is a place where students learn practical uses of computers, such as programming or how to use a spreadsheet program.*

(b). **Give two ways a user can be safeguarded against accident while in a lab.** (02marks)

- ✓ *Should not run in a computer laboratory.*
- ✓ *Should avoid eating and drinking in a computer laboratory.*
- ✓ *Should avoid connecting and disconnection devices.*
- ✓ *Should insulate all wires and cables in a laboratory.*
- ✓ *Should install lightening arrestors.*
- ✓ *Should install fire detection equipment.*



(c). **Mention one way a computer resource can be abused.** (01 mark)

- ✓ Through software piracy.
- ✓ Through defacing hardware components.
- ✓ Through using institution resources for personal gain.
- ✓ Through misrepresenting content.
- ✓ Through giving away institution information without permission.
- ✓ Picking and taking equipment, software and other resources from the institution.
- ✓ Miss using consumables like printing papers, tonner, e.t.c.

5. (a). Give **the difference between cold and warm booting.** (02 marks)

- ✓ Cold booting involves starting a computer that was previously off, **while**; warm booting involves the starting up of a computer that was previously on.

(b). **Mention three reasons for restarting a computer.** (03 marks)

- ✓ Commonly carried out to recover from errors that cannot be recovered.
- ✓ When a computer locks or freezes.
- ✓ After installing of certain new software program.
- ✓ After installing a new hardware device like a flash disk.
- ✓ After uninstalling a hardware device.
- ✓ After uninstalling a software program.
- ✓ When the computer slows down.
- ✓ After changing CMOS or BIOS setup.
- ✓ When a computer has a virus, it can constantly restart itself.

6. (a). **Mention any three activities that can be done on a computer file.** (03 marks)

- | | |
|---------------------------|--|
| ✓ Edit. | ✓ Rename a file. |
| ✓ Delete. | ✓ Convert from one format to another
e.g. From .docx to .rtf. |
| ✓ Update. | ✓ Encrypt a file. |
| ✓ Send a file. | ✓ Print a file. |
| ✓ Combine / split a file. | ✓ Save as file |
| ✓ Open / close a file. | |
| ✓ Zip / compress a file. | |

(b). **State two advantages for backing up files by users.** (02 marks)

- ✓ It enables the user to have multiple copies of the same work which can be sent to different people for editing e.g. A book, magazine, e.t.c.
- ✓ It enables the user to recover work in case of data loss.
- ✓ It enables the user to supply copies of the works to many people e.g. Software.
- ✓

7. Study the file path given to you:

C:\Users\Budo\Desktop\Exams\SubICT-BOT,2015.docx

(a). **Write down the file name from the path above.** (01 mark)

✓ *SUBICT-BOT,2015*

(b). **Mention the possible application program this file was created.** (01 mark)

✓ *Ms. Word*

(c). **State the immediate folder name in which the file is located.** (01 mark)

✓ *Exams*

(d). **Identify the user name in the file path above.** (01 mark)

✓ *Budo*

(e). **What is the importance of having file extensions in a file path.** (01 mark)

✓ *It enables the computer to easily identify the specific application program in which to open a given file.*

8. (a). **Define the term data storage.** (01 mark)

✓ *It refers to the keeping of data / information for some time in a given location.*

(b). **Write short notes on the following terms as used in relation to data storage.**

(i). **Storage capacity.** (01 mark)

✓ *It refers to the maximum amount of data / information that a storage medium / device can hold.*

(ii). **Access time.** (01 mark)

✓ *It refers to the amount of time needed to transfer data / information from one place to another e.g. from a CD ROM to Memory.*

(iii). **Access mode.** (01 mark)

✓ *It refers to the method a storage medium / device uses to provide data / information to the user. It can be sequential, random, e.t.c.*

(c). Give one factor to consider before buying a Compact Disc - ROM. (01 mark)

- ✓ Amount of data available for storage.
- ✓ The needs of the user.
- ✓ The nature of data / information.
- ✓ The destination device for play back.
- ✓ quality of the COMPACT DISC - ROM

9. (a). State the difference between an address and a data bus. (02 marks)

- ✓ *An address bus consists of all the signals necessary to define any of the possible memory address locations within the central processing unit, **while**; a data bus is used to transfer instructions from memory to the CPU for execution. It carries data (operands) to and from the CPU and memory as required by instruction translation.*

(b). Mention any two mathematical operators carried out by the ALU. (02 marks)

Arithmetic operator	Comparison operator	Comparison operator	Text operator	Reference operator
+	=	=	&	: (colon)
–	>	>		, (comma)
*	<	<		(space)
/	>=	>=		
%	<=)	<=		
^	<>	<> , !		

(c). Give one way you can improve performance of the CPU. (01 mark)

- ✓ By increasing the amount of ram.
- ✓ By frequently dust blowing it.
- ✓ By installing operating system that it (the CPU) can run efficiently.

10.(a). Define a software suite. (01 mark)

- ✓ *It refers to the collection of integrated packaged software sold as a single unit.*

(b). Give two advantages of purchasing a software suite. (02 marks)

- ✓ It is relatively cheap to buy.
- ✓ It has similar interface features / tools.
- ✓ Learning one package can enable the user to work with another easily.

(c). Mention two ways computer software can be obtained legally. (02 marks)

- ✓ By creating own software.

- ✓ By buying from authorized vendors.
- ✓ By obtaining as an add on component e.g. hardware drivers sold in inclusion.

11. In relation to a presentation program, what is meant by the following terms:

- (a). **Master layout.** (01 mark)
- ✓ It refers to the overall design / appearance of a presentation.
- (b). **Clip art gallery.** (01 mark)
- ✓ A tool that provides a user with a list and categorised program pictures normally called clip art that can be used for any purpose.
- (c). **Slide sorter view.** (01 mark)
- ✓ It refers to the display of slides at once in vertical rows, miniature or thumbnail view.
- (d). **Place holder.** (01 mark)
- ✓ Is a rectangular dotted object that is used to hold content in a specific region on a slide.
- (e). **Transition looping.** (01 mark)
- ✓ Is a presentation facility that allows all slides to move continuously or by self.

12. Today, many people prefer buying items online. As an ICT student:

- (a). **Suggest a name to this type of business activity.** (01 mark)
- ✓ E-commerce.
- (b). **Give two advantages of using this type of trade.** (02 marks)
- ✓ Transactions can occur immediately and globally, thus save time for participants on both ends.
 - ✓ Transactions can occur 24 hours per day.
 - ✓ Businesses have access to millions of people with Internet connections.
 - ✓ Businesses have the ability to gather customer information, analyze it, and react if appropriate.
 - ✓ Information can be changed and be available quickly.
 - ✓ Customers can compare prices easily.
 - ✓ Feedback can be immediate.
 - ✓ Manufacturers can buy and sell directly, avoiding the cost of the middleman.
 - ✓ Distribution costs for information is reduced or eliminated.

(c). **Mention two other services provided by the internet.** (02 marks)

- ✓ *The World Wide Web.*
- ✓ *E-mail.*
- ✓ *FTP (File Transfer Protocol).*
- ✓ *Newsgroups.*
- ✓ *Message boards.*
- ✓ *Mailing lists.*
- ✓ *Chat rooms.*
- ✓ *Instant messaging.*
- ✓ *Internet telephony.*
- ✓ *Videoconferencing.*

13. **You are given the following URL:**
<https://www.kingscollegebudo.sc.ug>

(a). **What is the meaning of https?** (02 marks)

- ✓ *It is a communication protocol for secure communication over a computer network, with especially wide deployment on the internet.*

(b). **Give the domain name in the URL.** (01mark)

- ✓ *kingscollegebudo*

(c). **Suggest the possible:**

Top Level Domain Name (01 mark)

- ✓ *.sc*

Second Top Level Domain Name (01 mark)

- ✓ *.ug*

14. (a). **Mention two ways through which computer viruses can be transmitted.** (02 marks)

- ✓ *Through sharing of computer files.*
- ✓ *Through sharing of storage devices e.g. Flash disks.*
- ✓ *Through sharing of computer networks / internet.*
- ✓ *Through installation of already infected programs and software.*
- ✓ *Opening of e-mail attachments that might be infected.*
- ✓ *Booting from CD or floppy diskettes.*
- ✓ *Through activities of computer crime like hacking through systems.*

(b). **Suggest two possible functions of an antivirus to a computer.** (02 marks)

- ✓ *It scans a computer for viruses.*
- ✓ *It cleans files that are infected.*
- ✓ *It deletes files that are infected and cannot be cleaned.*

- ✓ It quarantines files that cannot be deleted.
- ✓ It can be used to block certain sites, programs and resources.
- ✓ It can be used to track stolen devices like laptops.
- ✓ It alerts the user of the possible threat.

(c). **Give one danger of computer viruses to computer hardware.** (01 mark)

- ✓ Deletes files.
- ✓ Makes some hardware devices not available.
- ✓ Un installs devices.
- ✓ Leads to system failure.
- ✓ Makes the computer take long while booting.
- ✓ Makes the computer to frequently restart.
- ✓ Computer can play noises.

15.(a). **In relation to a windows desktop environment, give one function of the following:**

(i). **Recycle bin.** (01 mark)

- ✓ Also called the trash, refers to the location where files and programs temporarily deleted from the file manager are kept.

(ii). **Internet Explorer.** (01 mark)

- ✓ Is a computer program that is used to view pages on the internet.
- ✓ Is a computer program that is used to find and open drives and files.

(iii). **My Computer.** (01 mark)

- ✓ An icon that enables the used to see drives and other system properties.

(b). **Give two reasons for formatting a storage medium.** (02 marks)

- ✓ To prepare a data storage device for initial use e.g. Hard disk.
- ✓ It enable the disk to obtain a new filing system e.g. NTFS, xfat, e.t.c.
- ✓ Needed to make a storage device visible to an operating system.
- ✓ It is also used to clean a storage device.

16.(a). **Write one function name used to evaluate the following assignments in Ms Excel:**

(i). **Determine the total score.** (01 mark)

- ✓ SUM

(ii). **Obtaining the best done eight subjects out of the ten sat for.** (01 mark)

✓ *SUM, SMALL*

(iii). **Determining the average score for Senior One C out of three streams.**

✓ *AVERAGEIF*

(b). **Mention any two data types that can be manipulated in a spreadsheet.**

(02 marks)

✓ *Labels / text.*

✓ *Numbers / values.*

✓ *Formulas / functions.*

✓ *Percentages.*

✓ *Data and time.*

17.(a). **What is a website?**

(02 marks)

✓ *It is a collection of related WebPages hyperlinked together.*

(b). **Write short notes on the following types of websites.**

(i). **Web Aggregator.**

(01 mark)

✓ *It is a type of website that collects content from other sites mainly of a particular type.*

(ii). **A blog.**

(01 mark)

✓ *It a type of website that is generally used to post online diaries which may include discussion forums in reverse chronological order.*

(iii). **Web portal.**

(01 mark)

✓ *A site that provides a starting point or a gateway to other resources on the Internet or an intranet.*

18. **In relation to word processing, write short notes on the following terms:**

(a). **Footer.**

(01 mark)

✓ *Text that appears in the bottom margin of a page.*

(b). **Foot note.**

(01 mark)

✓ *Text mainly citation that automatically appear at the bottom of the page.*

(c). **End note**

(01 mark)

✓ *Text that automatically appear at the end of the document.*

(d). Mail - Merge.**(01 mark)**

- ✓ *It is a facility that enables the user to manage and produce the same copy or work but with multiple addresses.*

(e). Caption.**(01 mark)**

- ✓ *Refers to a title or short explanation appended to an article, illustration, cartoon or poster.*

19.(a). Mention two advantages of using a laptop over a desktop computer. (02 marks)

- ✓ *It is more portable than a desktop computer.*
- ✓ *It has an inbuilt power backup that lacks in a desktop computer.*
- ✓ *It covers a small office space.*
- ✓ *It has many inbuilt facilities like webcam, keyboard, touch pad which may be bought differently for the case of desktop computers.*

(b). Give two reasons for switching off a computer after use.**(02 marks)**

- ✓ *To avoid power wastages.*
- ✓ *To reduce wear and tear for computers.*

(c). In relation to a computer monitor, what is a viewing angle?**(01 mark)**

- ✓ *Is the maximum angle at which images on the monitor can be viewed, without excessive reduction in quality of the image*

20. (a). Define the term data.**(01 mark)**

- ✓ *It refers to the raw facts and figures entered into a computer.*

(b). Mention two ways data may be misused in an organization.**(02 marks)**

- ✓ *Deleting it accidentally.*
- ✓ *Misrepresenting it.*
- ✓ *Changing it.*
- ✓ *Giving it out without permission.*

(c). Give two ways data accuracy can be maintained at point of entry.**(02 marks)**

- ✓ *Data validation.*
- ✓ *Data verification.*

End of set one!**SET TWO:**

1. (a). **Define the term information processing cycle.** (01 mark)
- ✓ *It refers to a sequence of events in processing information, which includes input, processing, storage and output.*
 - ✓ *Also a sequence of events that converts data into information*
- (b). **Give the difference between data and information.** (02 marks)
- ✓ *Data refers to meaningless, raw, un summarized facts, **while**, information refers to processed, summarized and meaningful data.*
- (c). **State any two ways data may be lost in a computer laboratory.** (02 marks)
- ✓ *Deleting files accidentally.*
 - ✓ *Viruses and damaging malware.*
 - ✓ *Mechanical damages of hard drive.*
 - ✓ *Power failures.*
 - ✓ *Theft of computer.*
 - ✓ *Spilling coffee, and other water damages.*
 - ✓ *Fire accidents and explosions.*
 - ✓ *Natural disasters.*
2. (a). **Write any two ways you can express =MAX(B4:B20)** (02 marks)
- ✓ *=MAXA(B4:B20)*
 - ✓ *=LARGE(B4:B20,1)*
- (b). **Describe how a shop keeper can use a spreadsheet program.** (03 marks)
- | | A | B | C |
|---|--------------|----------|------------|
| 1 | Item | Quantity | Unit price |
| 2 | Sugar | 20 | 3,500 |
| 3 | Salt | 36 | 500 |
| 4 | Soda | 65 | 800 |
| 5 | Rwenzori | 98 | 2,000 |
| 6 | Yoghurt | 56 | 3,000 |
| 7 | Toilet paper | 23 | 1,000 |
3. (a). **State two advantage of keeping work in a soft copy.** (02 marks)
- ✓ *Convenient to store.*
 - ✓ *Can be easily transported from one computer to another.*
 - ✓ *Easily edited and formatted.*
 - ✓ *Can be shared by many people easily say in a network.*
 - ✓ *Data security can easily be achieved at least costs.*
 - ✓ *Not affected much by natural disasters like humidity, e.t.c.*

- ✓ Cheaper to store.
- ✓ Soft copies can easily be searched quickly and obtained.

(b). Mention two dangers of software piracy.

(02 marks)

- ✓ Leads to loss to software manufacturers.
- ✓ Leads to imprisonment to offenders.
- ✓ Leads to lack of software support from software developers.
- ✓ Leads to transmission of computer viruses.

(c). Give one way a password can be kept secure.

(01 mark)

- ✓ Use a different password for every website you visit.
- ✓ Use a combination of upper case, lower case, numbers and symbols.
- ✓ Change your passwords every three months.
- ✓ If it's hard to remember all your passwords, try a password manager.
- ✓ Set up two-step log-ins.
- ✓ Do not give your passwords to other people.

4. (a). Give the difference between hardware and software.

(02 marks)

- ✓ **Hardware** refers to the physical / tangible parts or components of a computer, while; **Software** refers to a set electronic instructions a computer needs to work.

(b). State any two branches of system software.

(02 marks)

- ✓ Operating system.
- ✓ Programming languages.
- ✓ Utility programs.
- ✓ Device drivers.
- ✓ Firmware

(c). What is a computer program?

(01mark)

- ✓ A computer program is a collection of instructions that performs a specific task when executed by a computer.

5. (a). State two advantages of using a Graphical User Interface (GUI).

(02 marks)

- ✓ A GUI allows computer users to employ visual elements, such as desktop icons, to navigate and operate software.
- ✓ GUIs serve as a replacement for the earlier command line interface, or CLI, approach, in which users type key terms and symbols to operate the computer.
- ✓ You can create a more rich, and sensitive interface than is possible with CLI.
- ✓ Most lay users will have a smaller learning time using a GUI.
- ✓ Complex, multi-step, dependent tasks can easily be grouped together in a way that discourages mistakes.
- ✓ Ability to embed media
- ✓

(b). Briefly, explain the following as used in word processing.

(i). Red wave underline below a word.

(01 mark)

✓ *Wrong spelling of word.*

✓ *Repetition of a word*

(ii). Green wave underline below a sentence.

(01 mark)

✓ *Grammatical error.*

✓ *Word order error.*

(iii). Auto - complete.

(01 mark)

✓ *Auto complete, or word completion, is a feature in which an application predicts the rest of a word a user is typing.*

6. (a). Mention any one device that can be used to enter data into a computer.

(02 marks)

✓ *Mouse.*

✓ *Keyboard.*

✓ *Tracker ball.*

✓ *Microphone.*

✓ *Remote control.*

✓ *Scanner.*

✓ *MICR reader.*

✓ *OCR reader.*

✓ *Web cam.*

✓ *Touch pad.*

✓ *Stylus pen.*

✓ *Light pen.*

✓ *QR code reader.*

✓ *Bar code reader.*

✓ *Touch screen.*

(b). Give two requirements for conducting a live video conference.

(02 marks)

✓ *Web cam.*

✓ *Head set.*

✓ *Computer / device e.g. mobile phone.*

✓ *Internet connectivity.*

✓ *Video conferencing software.*

(c). State two uses of ICT in your school.

(01 mark)

✓ *Computer-based training, which includes*

✓ *Computer-assisted instructions (CAI), so that teachers can use computers and other IT equipment to present teaching materials in a more interesting way.*

✓ *Computer-assisted learning (CAL), so that students can use computers and appropriate software to learn at their own pace.*

✓ *Computer-assisted assessment (CAA), which may reduce the time and labor to mark the answer scripts.*

✓ *Distance learning through computer-based training and Web-based training.*

✓ *Simulations of experiments or real-life situations that may be hazardous.*

✓ *Electronic library system for searching, borrowing, and returning books.*

✓ *The School Administration and Management System (SAMS) for keeping records of students and producing report cards or other related documents.*

- ✓ Edutainment, which is a type of educational software that combines education with entertainment.

7. (a). What is a transition loop?

(01 mark)

- ✓ Is a feature in a presentation program that allows the slide to move either continuously or repeatedly or to the final slide depending on the user defined the settings.

(b). Suggest any two features of a good looking presentation.

(02 marks)

- ✓ Use of clear fonts.
- ✓ Each slide should have a heading.
- ✓ Use of appropriate colours and fonts.
- ✓ Use minimal animations.
- ✓ Use few but relevant graphics / images.
- ✓ Should address needs of the user.

(c). Give two uses of a slide sorter facility.

(02 marks)

- ✓ Slide Sorter view gives you a view of your slides in thumbnail form.
- ✓ This view makes it easy for you to sort and organize the sequence of your slides as you create your presentation, and then also as you prepare your presentation for printing.
- ✓ You can add sections in Slide Sorter view as well, and sort slides into different categories or sections.

8. (a). Give two factors to consider before buying a printer.

(02 marks)

- | | |
|-------------------------------|---|
| ✓ Printing speed | ✓ Economical printing |
| ✓ Print quality | ✓ Supplies management |
| ✓ Supported operating systems | ✓ Accessibility of the printer and other accessories. |
| ✓ Ease of use | ✓ Security of the printer |
| ✓ Flexible paper handling | ✓ |
| ✓ Interface connections | |
| ✓ Energy savings | |

(b). What is a printer driver?

(01 mark)

- ✓ Is a computer program that is used to configure or attach a printer in order to work with a computer.

(c). Outline two reasons for scrolling a page / document.

(02 marks)

- ✓ When one wants to see hidden work in a document.
- ✓ When one wants to zoom in or out of a document.
- ✓ When one wants to go through a program menu list.
- ✓ When one wants to see all the pages in a document.
- ✓

9. (a). State any one component found in a title bar.

(01 mark)

- ✓ Maximize /Restore button.
- ✓ Minimize / collapse button.

✓ Close / exit button

(b). Give two crimes committed through use of e-mails. (02 marks)

✓ Fraud.

✓ Malice.

✓ Sabotage.

✓ Spamming.

✓ Identity theft.

✓ property infringement.

✓ Hacking into e-mail accounts.

✓ Eavesdropping.

✓ Cracking.

✓ Software piracy.

✓ Intellectual

(c). My e-mail address is **myname@gmail.com**. Identify:

(i). E-mail separator. (01 mark)

✓ @

(ii). Domain name.

(01 mark)

✓ gmail

10. Write down an application example for carrying out each of the following tasks.

(05 marks)

(a). Typeset a letter to invite the Guest of Honour Ms. Word, Abi Word, Word Pro, e.t.c

(b). Draw a budget for Senor Six ICT club 2016 Ms. Excel, Sheetstar, e.t.c

(c). Send an e-mail to a classmate Outlook, e.t.c.

(d). Prepare a talk to the senior ones in your school Ms. PowerPoint e.t.c.

(e). Search for information from the internet Google search engine, Bing search engine, e.t.c.

11. Explain the following mouse techniques:

(a). Click. (01 mark)

✓ Refers to pressing either of the mouse buttons once.

(b). Double click. (01 mark)

✓ Refers to pressing a left button in a quick double succession. It is normally used to open an application, execute a program, e.t.c.

(c). Scroll. (01 mark)

- ✓ Refers to moving a page either direction in order to see hidden work, zoom in or out, e.t.c.

(d). Drag. (01 mark)

- ✓ Move to new location

(e). Drop. (01 mark)

- ✓ Refers to releasing an object that has been dragged.

12.(a). Under what circumstance may a user opt for a compact disk for data storage? (02 marks)

- ✓ When one wants to keep a copy permanently.
- ✓ When one wants to keep a portable copy of the work.
- ✓ When one wants to keep a lot of work in one location.
- ✓ When one wants to keep data for distribution e.g. software, e.t.c.

(b). Give one reason for storing a document in a pdf format. (01 mark)

- ✓ PDF documents can be quickly and easily created
- ✓ It ensures required security without compromising originality.
- ✓ It has the ability to compact and able to compress large files.
- ✓ It has the ability to exist independently from the hardware, software and operating system (OS) used to create or view the PDF document.
- ✓ Less chance of information being lost, destroyed or being accessed inappropriately.
- ✓ Records are managed throughout their lifetime.

(c). Many people today prefer buying goods online. State two advantages of using this practice. (02 marks)

- ✓ It is extremely convenient while carrying out transactions.
- ✓ It is time saving.
- ✓ Without driving from store to store the consumer can easily compare and contrast products.
- ✓ When products are placed online, they come with all the specifics, and they want you to compare them with others, know they have the best options and come back for more.
- ✓ Because the competition is high, companies online want you to look at other consumer reviews.
- ✓ Increasing customer base.
- ✓ Rise in sales.
- ✓ it is open for consumers 24/7 every day of the year. The doors never close and profits will keep rising.
- ✓ With the right marketing, every consumer around the globe can find the business site, products and information without leaving home.

✓ *Instant transactions.*

13.(a). **Distinguish a webpage from a website.** (01 mark)

✓ *A **webpage** is a single page in a website, while a **website** is a collection of several WebPages.*

(b). Describe the following types of websites:

(i). Blog. (01 mark)

✓ *A blog (also called a weblog or web log) is a website consisting of entries (also called posts) appearing in reverse chronological order with the most recent entry appearing first (similar in format to a daily journal).*

(ii). Wiki. (01 mark)

✓ *Is a website which allows collaborative modification of its content and structure directly from the web browser.*

(iii). Rating site. (01 mark)

✓ *A rating site (less commonly, a rate-me site) is a website designed for users to vote on or rate people, content, or other things.*

(iv) Portal. (01 mark)

✓ *A web portal is most often one specially designed web site that brings information together from diverse sources in a uniform way.*

14.(a). **Under what circumstances may a user carry out the following activities?**

(i). Software updating. (01 mark)

✓ *When one wants to increase, modify or add software functionality of the same version.*

(ii). Computer restarting. (01 mark)

✓ *Commonly used to recover from errors that cannot be recovered.*

✓ *When a computer locks or freezes.*

✓ *After installing of certain new software program.*

✓ *After installing a new hardware device like a flash disk.*

✓ *After uninstalling a hardware device.*

✓ *After uninstalling a software program.*

✓ *When the computer slows down.*

✓ *After changing CMOS or BIOS setup.*

✓ *When a computer has a virus, it can restart itself.*

(b). **Muwanguzi carried out a fresh installation of his laptop and later, he realized that some of the devices could not function.**

State two possible causes of this occurrence

(02 marks)

- ✓ *He had not yet installed device drivers.*
- ✓ *Maybe there was device incompatibility.*

(c). **Define an off - the - shelf software.**

(01 mark)

- ✓ *Refers to application programs already made for use to solve a variety of tasks.*

15.(a). **Outline any two functions of an operating system.**

(02 marks)

- ✓ *Provides basic working environment/interface on a computer.*
- ✓ *Controlling the use of peripherals.*
- ✓ *Controlling the loading and running of application programs.*
- ✓ *Organizing the use of memory/Memory management*
- ✓ *It helps in the booting process of a computer.*
- ✓ *It helps in file management*
- ✓ *It helps in protecting hardware and software.*
- ✓ *It helps in the process of connecting devices to work with a computer (configuring devices)*
- ✓ *It helps in the processor management e.g. multitasking and time sharing.*

(b). **Distinguish between a freeware and a shareware.**

(02 marks)

- ✓ ***Freeware** refers copyrighted software provided at no cost, While; **Shareware** refers to copyrighted software provided on a trial basis but later the user has to pay to use of all the functions provided.*

(c). **State one factor to consider before buying a software program.**

(01 mark)

- ✓ *Compatibility issue with the hardware.*
- ✓ *Compatibility with the available software.*
- ✓ *Needs of the organisation.*
- ✓ *Is the product an up-to-date, current version or release?*
- ✓ *Ease of use of the software/User friendly*
- ✓ *Whether the manufacturer offers technical assistance of users of the programs.*
- ✓ *Nature of the software manufacturer.*
- ✓ *Efficiency and productivity of the program.*
- ✓ *Whether the software vendor offers service support centre for routing updates.*
- ✓ *Cost of the program to use.*

16.(a). Briefly, explain when the following functions can be used:**(i). IF.**

(01 mark)

- ✓ The **IF** function in Excel returns one value if a condition is true and another value if it's false.

(ii). COUNTIF

(01 mark)

- ✓ The **COUNTIF** function in Excel counts the number of cells that meet criteria you specify.

(b) How many cells are in the range B10:G14?

(01 mark)

- ✓ 30 cells

(c). State any two qualities of a good graph.

(02 marks)

- ✓ It should have a good descriptive title.
- ✓ Should have right data selection.
- ✓ Should be the right chart type.

17.(a). State one practical use of the following keyboard keys.**(a). Enter.**

(01 mark)

- ✓ Is used to send the cursor to the next line or execute a command or operation.

(b). Caps Lock.

(01 mark)

- ✓ Computer keyboard toggle key that enables or disables all the letters from being typed in uppercase.
- ✓ It changes or gives room for activation of small letters (lower case) to capital letters (UPPER CASE) and from capital letters to small letters.

(c). Num lock.

(01 mark)

- ✓ It activates or deactivates the numerical pad on the keyboard.

(d). Space bar.

(01 mark)

- ✓ It provides necessary gaps between words in a sentence.

(e). Control key.

(01 mark)

- ✓ Is a modifier key which, when pressed in conjunction with another key, performs a special operation (for example, Ctrl + C); similar to the Shift key, the Control key rarely performs any function when pressed by itself.

18.(a). Give two advantages of real - time data processing. (02 marks)

- ✓ *There is no significant delay for response.*
- ✓ *Information is always up-to-date.*
- ✓ *Output from the computer may be used to adjust and improve the input.*

(b). State any two parts that make up a CPU. (02 marks)

- ✓ *ALU.*
- ✓ *Control unit.*
- ✓ *Registers.*

(c). Mention one component that can be replaced or upgraded to improve the general performance of the CPU. (01 mark)

- ✓ *RAM.*
- ✓ *Video cards.*
- ✓ *Hard disk drive.*

19.(a). List two advantages of LCD over CRT monitors. (02 marks)

- ✓ *LCD monitors require less than one-third the power of a CRT.*
- ✓ *LCD monitors take up less desk space than traditional CRT monitors.*
- ✓ *Radiation emitted by LCD monitors is neglectable than that of CRTs.*
- ✓ *They have a narrow viewing angle compared to CRT monitors.*
- ✓ *They have a higher refresh rate compared to CRT monitors.*
- ✓ *They have a higher and colour rich resolution than CRTs.*

(b). State two factors to consider before buying a monitor. (02 marks)

- ✓ *Size*
- ✓ *Resolution*
- ✓ *Aspect Ratio*
- ✓ *Backlighting*
- ✓ *Twisted nematic (TN) or In-plane switching (IPS)*
- ✓ *Video input*
- ✓ *Ergonomic flexibility*
- ✓ *Needs of the organisation.*

(c). While servicing a computer, state one use of the following:

(i). Screw driver. (01 mark)

✓ To lock or open screws in hardware devices.

(ii). Wrist anti-static chain.

(01 mark)

✓ Used to safely ground a person working on very sensitive electronic equipment, to prevent the build-up of static electricity on their body, which can result in electrostatic discharge (ESD).

20. Use the following application tools to fill in spaces below:

Format Painter, Highlight, Water Mark, Footer, Footnote, Gallery, Insert, Centre, Justify. (05 marks)

(a). **Footnote** inserts a citation, narration, reference in a specific page.

(b). Using the **justify** tool, text is distributed evenly in a page.

(c). **Highlight** allows a user to emphasize text in a document.

(d). Word art collections can be obtained from **gallery** location.

(e). **Format Painter** allows a user to copy a given pattern appearance to another piece of text in a document.

End of set two!

SET THREE:**1. a) Give the difference between data and information. (01 mark)**

- ✓ *Data is a collection of unprocessed raw facts entered into computer, while; information is processed data.*

(b). State two ways data can be kept safe in a computer laboratory. (02 marks)

- ✓ *By using passwords.*
- ✓ *Through activating firewalls.*
- ✓ *By frequently backing up data.*
- ✓ *Through having a thorough audit trail.*
- ✓ *By installing antivirus programs to guard against data loss.*
- ✓ *By use of biometric devices to allow access to the computer.*
- ✓ *By sensitizing users.*
- ✓ *By enforcing a data protection policy for an organization.*

(c). Mention two devices used to enter text into a computer. (02 marks)

- | | |
|------------------------|-------------------------------------|
| ✓ <i>Keyboard.</i> | ✓ <i>Bar code readers.</i> |
| ✓ <i>Mouse.</i> | ✓ <i>OCR readers.</i> |
| ✓ <i>Touch screen.</i> | ✓ <i>Microphone through voice</i> |
| ✓ <i>Tracker ball.</i> | ✓ <i>recognition.</i> |
| ✓ <i>Scanner.</i> | ✓ <i>Through use of Dictaphones</i> |
| ✓ <i>MICR readers.</i> | |

2. (a). State two ways of ensuring continuous use of a computer. (02 marks)

- ✓ *By regularly servicing the computer.*
- ✓ *By upgrading computer software.*
- ✓ *By updating computer software.*
- ✓ *By covering a computer to avoid dust from entering a computer.*
- ✓ *By use of air conditioner facility.*
- ✓ *By training workers into better methods of using the computer facilities.*
- ✓ *By writing an ICT policy that guides the use of computer facilities.*
- ✓ *By employing trained personnel to help in areas of computer use difficulties.*
- ✓ *Install an antivirus program to reduce damage caused by viruses onto hardware.*
- ✓ *By implementing physical access guidelines to users.*
- ✓ *Penalize users who intend to vandalize computers.*

(b). Give two advantages of air conditioning in a computer laboratory. (02 marks)

- ✓ *To reduce dust in a computer lab.*
- ✓ *To cool the room so that it is comfortable and conducive to sit in.*
- ✓ *To prevent insects from entering a computer laboratory.*

(c). Write PC in full.

(01 mark)

- ✓ *Personal Computer*

3. (a). Mention two devices that can be used both as input and output devices. (02 marks)

- ✓ *Touch screen.*
- ✓ *Smart board.*
- ✓ *Galaxy, android and smart phones.*
- ✓ *Digital camera*

(b). State two disadvantages of dot-matrix printers over laser-jet printers. (02 mks)

- ✓ *They are very slow at printing work.*
- ✓ *They produce a lot of noise.*
- ✓ *They produce poor quality output.*
- ✓ *They are expensive to use in the long – run.*

(c). Mention one area where light emitting diodes are used.

(01 mark)

- ✓ *To report errors in a device driver e.g. paper jam.*
- ✓ *Indicate availability of a device e.g. device ready, idle, e.t.c.*
- ✓ *Indicates activity hardware is carrying out.*

4. (a). Write CPU in full.

(01 mark)

- ✓ *Central Processing Unit*

(b). State the difference between registers and buffers.

(02 marks)

- ✓ *Registers are high-speed temporary storage locations used to hold data and instructions, while; buffers are used temporarily to store output or input data.*

(c). Mention two functions of the ALU in a processor.

(02 marks)

- ✓ *The ALU performs the arithmetic,*
- ✓ *Carries out logical operations that include working with conditions like AND, OR, IF, NOT, e.t.c.*

5. (a). State one function of the following:

(i). Caps lock

(01 mark)

- ✓ *It causes the keyboard to go into a mode in which letter keys are interpreted as capital letters by default*

(ii). Esc key

(01 mark)

- ✓ *It is used to cancel an activity or operation.*
- ✓ *It is used to stop or pause a presentation.*
- ✓ *It is used to go back to the menu platform in games.*

- ✓ *It is used to go the start menu in a windows computer (Ctrl + Esc)*
- ✓ *Switch to InDesign's selection tool from within a text box*
- ✓ *Reverse your "make this tab a window" drag*
- ✓ *Hide your browser cursor*
- ✓ *Erase and get out of the Spotlight menu*
- ✓ *Take a shortcut back to your original application*

(b). Give one difference between a backspace and delete key. (02 marks)

- ✓ *Backspace deletes a character to the left of the cursor, while; delete key erases a character to the right of the cursor.*

(c). State one use of a computer keyboard in data processing. (01 mark)

- ✓ *Used to enter text into a computer.*
- ✓ *Used select data.*
- ✓ *Used to enter an instruction during data processing.*
- ✓ *Used to align objects during data processing.*

6. (a). Write short notes on the following:

(i). Character map. (01 mark)

- ✓ *It is used to enter special characters that do not appear on a keyboard.*

(ii). Footer (01 mark)

- ✓ *Text that appears in the bottom margin of the page repeatedly.*

(iii). Backup (01 mark)

- ✓ *Involves making multiple copies of a piece of data.*

(b). State two circumstances under which the following are done.

(i). Save (01 mark)

- ✓ *Involves storing a file for the first time or a new document.*

(ii). Save as (01 mark)

- ✓ *Means to store an existing file by giving it another file name.*

7. Using the following file path to answer questions below:

C:\Users\Student\Desktop\functionalcomputing.docx

(a). In which storage device was the file stored? (01 mark)

- ✓ *Hard disk.*

(b). In which program was the file saved?

(01 mark)

- ✓ *In a word processing application.*

(c). In which account privilege was the file stored?

(01 mark)

- ✓ *User*

(d). State two features of the program used to store this work. (02 marks)

- ✓ **Word-wrap**- Allows a user to type continually without pressing the Enter key at the end of each line.
- ✓ **Find and search** - Allows a user to locate all occurrences of a particular character, word, or phrase.
- ✓ **Replace** - Allows a user to substitute existing characters, words, or phrases with new ones.
- ✓ **Spelling checker** - Allows a user to check the spelling of a whole document at one time, or to check and even correct the spelling of individual words as they are typed (i.e., AutoCorrect).
- ✓ **Grammar checker** - Reports grammatical errors and suggests ways to correct them.
- ✓ **Thesaurus** - Suggests alternative words with same meaning (i.e., synonyms) for use in the document.
- ✓ **Mail merge** - Create form letters, mailing labels, and envelopes.
- ✓ **Automatic page numbering** - Numbers the pages automatically in a document.
- ✓ **Tables** - Allows a user to organize information into rows and columns.
- ✓ **Multi-columns** - Arranges text in two or more columns that look similar to a newspaper or magazine.
- ✓ **Macros** - Allows a user to record or save frequently used keystrokes and instructions, which can be executed later by running the corresponding macros.
- ✓ **Clip art gallery** - Allows a user to insert drawings, diagrams, and photographs into a document.
- ✓ **Mathematical formulae typesetting** - Allows a user to typeset complex mathematical formulae within the program.

8. (a). Write the term e-mail in full.

(01 mark)

- ✓ *E-mail is electronic mail, is the transmission of messages via a computer network such as a local area network or the Internet.*

(b). Give two advantages of using an e-mail in data communication.

(02 marks)

- ✓ *Very quick and cheap delivery.*
- ✓ *Computer files can be attached to an email.*
- ✓ *Records and copies is kept automatically.*
- ✓ *Can be picked up anywhere in the world.*
- ✓ *Can be sent at any time to suit the sender.*

(c). In relation to an e-mail, give the meaning of the following abbreviations:

(i). BCC **(01 mark)**

- ✓ *Blind Carbon Copy*

(ii). CC **(01 mark)**

- ✓ *Carbon Copy*

9. (a). State the difference between primary key and foreign key as used in Ms Access. **(01 mark)**

- ✓ *A primary key is used to uniquely identify a record in a table, while; a foreign key is used in one table to represent the value of a primary key in a related table.*

(b). State two data checks used in Ms Access. **(02 marks)**

- ✓ *Validation checks used in a database*
- ✓ *Allowed character checks: checks that ascertain that only expected characters are present in a field.*
- ✓ *Batch totals: Checks for missing records. Numerical fields may be added together for all records in a batch. The batch total is entered and the computer checks that the total is correct.*
- ✓ *Check digits: The computer checks this calculation when data are entered.*
- ✓ *Consistency checks: Checks fields to ensure data in these fields corresponds, e.g., If Title = "Mr.", then Gender = "M".*
- ✓ *Control totals: This is a total done on one or more numeric fields which appears in every record.*
- ✓ *Cross-system consistency checks: Compares data in different systems to ensure it is consistent, e.g., the address for the customer with the same id is the same in both systems.*
- ✓ *Data type checks: Checks the data type of the input and give an error message if the input data does not match with the chosen data type, e.g., In an input box accepting numeric data, if the letter 'O' was typed instead of the number zero, an error message would appear.*
- ✓ *File existence check: Checks that a file with a specified name exists. This check is essential for programs that use file handling.*
- ✓ *Format or picture check: Checks that the data is in a specified format (template), e.g., dates have to be in the format DD/MM/YYYY.*

- ✓ Hash totals: This is just a batch total done on one or more numeric fields which appears in every record. This is a meaningless total, e.g., add the Telephone Numbers together for a number of Customers.
- ✓ Limit check: Unlike range checks, data is checked for one limit only, upper OR lower, e.g., data should not be greater than 2 (≤ 2).
- ✓ Logic check: Checks that an input does not yield a logical error, e.g., an input value should not be 0 when there will be a number that divides it somewhere in a program.
- ✓ Presence check: Checks that important data are actually present and have not been missed out, e.g., customers may be required to have their telephone numbers listed.
- ✓ Range check: Checks that the data lie within a specified range of values, e.g., the month of a person's date of birth should lie between 1 and 12.

(c). Give two advantages of using a primary key in Ms. Access (02 marks)

- ✓ *It uniquely identifies each row.*
- ✓ *It is never empty or null — there is always a value.*
- ✓ *It rarely (ideally never) changes.*
- ✓ *Access uses primary key fields to quickly bring together data from multiple tables through table relationships.*
- ✓

10. Use the following spreadsheet chart to answer questions below:

	A	B	C	D
1	Item	Quantity	Unit cost	Total cost
2	Bread	40	Ugx. 3,800	
3	Cake	60	Ugx. 500	
4	Fanta	50	Ugx. 800	
5	Rolex	30	Ugx. 1,200	
6	Sorghum	10	Ugx. 800	

(a). Write the data type used in the range B2:B6? (01 mark)

- ✓ *Number*

(b). What custom format was used to generate output in cell range C2:C6? (01 mark)

- ✓ *“Ugx.” #,###*

(c). How many cells are in the range A2:C6?

(01 mark)

✓ 15 cells

(d). State two ways data in cell range A1:D1 can be emphasized? (02 marks)

- ✓ By bolding.
- ✓ By underlining.
- ✓ By changing font size.
- ✓ By changing font colour.
- ✓ By changing text direction.
- ✓ By changing text alignment.

11. You are provided with the following figure prepared using a word processor.

NAME	ENGLISH	S.S.T	MATHS	SCIENCE	TOTAL
Mwase D.	70	100	20	70	
Swabulin M.	60	40	60	70	
Kintu S.	70	20	20	81	
Wandalo D.	70	60	10	81	
Nalweyiso A.	70	70	15	90	

(a). State the formula for determining total score for Wandalo D.

(01 mark)

✓ =sum(left)

(b). State one word processing feature used to prepare the figure above. (01 mark)

✓ It is a table.

(c). When you arrange the total in descending order, write down the order for all the students.

(02 marks)

✓ Wandalo D, Swabulin M., Nalweyiso A., Mwase D., Kintu S.

(d). When you sort Maths results in ascending order, write down the correct order of marks.

(01 mark)

- ✓ 10, 15, 20, 20, 60

12.(a). Define the term internet browser. (01 mark)

- ✓ *A Web browser is a software program used to access and view Web pages.*

(b). State two examples of browsers a user can manipulate. (02 marks)

- ✓ 360 Secure Browser
- ✓ Abaco (for Plan 9 from Bell Labs)
- ✓ Alynx
- ✓ Google Chrome
- ✓ Internet Explorer
- ✓ Mosaic-CK
- ✓ Mozilla fire fox
- ✓ Mozilla Navigator
- ✓ MSN Explorer (discontinued)
- ✓ Netscape Navigator and Netscape Communicator
- ✓ Opera (for releases up until 12.14[21])
- ✓ Opera (not yet, but announced [21])
- ✓ Opera Mini
- ✓ Opera web browser
- ✓ Safari

(c). Write short notes on the following:

(i). Search engine. (01 mark)

- ✓ *Is a software program that can be used to find Web sites, Web pages, and files on the Internet.*

(ii). Wiki (01 mark)

- ✓ *A site which users collaboratively edit its content.*

13.(a). Define the term data communication. (01 mark)

- ✓ *Refers to one computer transferring data, instructions, and information to another computer or some other computers.*

(b). State two elements of a data communication channel. (02 marks)

- ✓ Simplex channel
- ✓ Half duplex channel
- ✓ Full duplex channel
- ✓ Multiplex channel

(c). Mention two areas where GPS is currently being used in business. (02 marks)

- ✓ *To locate a person or an object in business.*
- ✓ *Ascertain the best route between two points*
- ✓ *Monitor the movement of a person or object.*
- ✓ *Create a map*
- ✓ *Many cars and ships also use GPS to provide directions to a destination and weather*

information.

14.(a). Distinguish between a freeware and a shareware.

(01 mark)

- ✓ ***Freeware** is copyrighted software provided at no cost to users, while; **Shareware** is copyrighted software that is distributed free for a trial period, and payment is required for using the software beyond that trial period.*

(b). State two uses of an operating system to a computer.

(02 marks)

- ✓ *Provides basic working environment/interface on a computer.*
- ✓ *Controlling the use of peripherals.*
- ✓ *Controlling the loading and running of application programs.*
- ✓ *Organizing the use of memory/Memory management*
- ✓ *It helps in the booting process of a computer.*
- ✓ *It helps in file management*
- ✓ *It helps in protecting hardware and software.*
- ✓ *It helps in the process of connecting devices to work with a computer (configuring devices)*
- ✓ *It helps in the processor management e.g. multitasking and time sharing.*

(c). Mention two examples of software suite.

(02 marks)

- ✓ *Ability Office*
- ✓ *Apache OpenOffice (formerly known as OpenOffice.org)*
- ✓ *Aster*x*
- ✓ *AUIS — an office suite developed by Carnegie Mellon University and named after Andrew Carnegie.*
- ✓ *Breadbox Ensemble runs under the GEOS (16-bit operating system) and effectively requires a version of DOS to be installed on the host system.*
- ✓ *Breadbox Office — DOS software, but has been successfully tested with Win3.x, Win95/98/98SE/ME, WinNT4.0, Win2000 and the 32bit-versions of WinXP, WinVista and Win7.0.*
- ✓ *Calligra Suite is the continuation of KOffice under a new name. It is part of the KDE Software Compilation.*
- ✓ *Celframe Office — supports Microsoft Office and other popular file formats, with a user interface styled on Microsoft Office 2003.*
- ✓ *ContactOffice - an AJAX-based online office suite. The suite includes personal and shared Calendar, Document, Messaging, Contact, Wiki,... tools. Available free and as an enterprise service.*
- ✓ *Corel WordPerfect for DOS - A word processor, spreadsheet, and presentation software from Corel (containing WordPerfect 6.2, Quattro Pro 5.6, Presentations 2.1, and Shell 4.0c).*
- ✓ *Documents To Go (Android and others)*
- ✓ *EasyOffice*

- ✓ Kingsoft Office (Chinese version known as WPS Office) — Available as a paid Professional edition, with a less capable freeware version as another option. (for Windows or Android only)
- ✓ Microsoft Office
- ✓ Microsoft Works
- ✓ Mobile office suites
- ✓ MobiSystems OfficeSuite Pro
- ✓ Office suites for Android, BlackBerry, iPhone, Symbian, Windows Mobile, Windows Phone, and others.
- ✓ QuickOffice, QuickOffice HD Pro (iOS and others)
- ✓ ShareOffice — a Web-based office suite from ShareMethods. This suite utilizes separate word processing, spreadsheet, and presentation applications from other vendors. It is distributed through Salesforce.com's AppExchange program.
- ✓ Windows Live Office - an online office suite from Microsoft which is based on Windows Live SkyDrive. It includes a word processor, a spreadsheet, a presentation application and a notetaking program. Allow users to create, edit, save and share documents.
- ✓ WordPerfect Office

15.(a). State one example of a device that is:

(i). Magnetic

(01 mark)

- ✓ Magnetic tapes.
- ✓ Hard discs.
- ✓ Magnetic stripes.
- ✓ Floppy diskettes.
- ✓ Zip discs.
- ✓

(ii). Solid-state

(01 mark)

- ✓ Flash discs.
- ✓ SSD cards
- ✓ Memory cards

(iii). Optical.

(01 mark)

- ✓ DVD – ROM
- ✓ CD – ROM
- ✓ Blue –ray discs

(b). State two ways of ensuring data security on the devices mentioned above.

(02 marks)

- ✓ Not keeping heavy objects onto them.

- ✓ By avoiding bending and scratching on the disk side of the disk surface.
- ✓ By right protecting of devices to avoid accidental erasers.
- ✓ By installing latest copy of antivirus programs.
- ✓ By sensitizing users.
- ✓ By writing and emphasizing the data protection act for organizations.
- ✓ By keeping them away from dust and smoke.
- ✓ By ejecting them after properly stopping them.
- ✓ By defragmenting discs for example hard disc.
- ✓ By keeping them in protective jackets to avoid scratches.

16.(a). State two ways IT is used at your school.

(02 marks)

- ✓ Computer-based training, which includes:
 - ✓ Computer-Assisted Instructions (CAI), so that teachers can use computers and other IT equipment to present teaching materials in a more interesting way.
 - ✓ Computer-Assisted Learning (CAL), so that students can use computers and appropriate software to learn at their own pace.
 - ✓ Computer-Assisted Assessment (CAA), which may reduce the time and labor to mark the answer scripts.
- ✓ Distance learning through computer-based training and Web-based training.
- ✓ Simulations of experiments or real-life situations that may be hazardous.
- ✓ Electronic library system for searching, borrowing, and returning books.
- ✓ The School Administration and Management System (SAMS) for keeping records of students and producing report cards or other related documents.
- ✓ Edutainment, which is a type of educational software that combines education with entertainment.

(b). State two disadvantages of using IT in society.

(02 marks)

- ✓ Leads to moral degeneration.
- ✓ Leads to computer crime.
- ✓ Leads to laziness.
- ✓ Leads to loss of man hour.
- ✓ Leads to accidents through explosions and electric shocks.
- ✓ Leads to long time side effects and health hazards like sight defects.
- ✓ Leads to unemployment as computers replace man at a workplace.
- ✓ Leads to digital divide.

(c). What is the meaning of the term ICT.

(01 mark)

- ✓ *ICT is concerned with the storage, retrieval, manipulation, transmission or receipt of digital data. Importantly, it is also concerned with the way these different uses can work with each other.*

17.(a). What is meant by Computer Aided Design? (01 mark)

- ✓ *Is the use of computer systems to assist in the creation, modification, analysis, or optimization of a design.*

(b). Give two different applications where CAD is used. (02 marks)

- ✓ *Computer-aided engineering (CAE) and Finite element analysis (FEA)*
- ✓ *Computer-aided manufacturing (CAM) including instructions to Computer Numerical Control (CNC) machines*
- ✓ *Photo realistic rendering.*
- ✓ *Document management and revision control using Product Data Management (PDM).*
- ✓ *CAD is also used for the accurate creation of photo simulations The features in the CAD system can be used for the variety of tools for measurement such as tensile strength, yield strength, also its stress and strain and how the element gets affected in certain temperatures.*
- ✓

(c). Mention any two specialized devices used in CAD. (02 marks)

- ✓ *Track ball.*
- ✓ *Mouse.*
- ✓ *Keyboard.*
- ✓ *3D devices.*
- ✓ *Printer.*
- ✓ *Graphics plotters.*

18.(a). Name two pieces of hardware needed to enable video-conferencing to take place using a standard computer system. (02 marks)

- ✓ *Microphone*
- ✓ *Speaker*
- ✓ *Web cam*
- ✓

(b). State one piece of specialist software needed to carry out Video – conferencing.

- ✓ *Skype*
- ✓ *Lenovo you cam.*

(c). State two advantages of using video - conferencing over instant messaging. (02 marks)

- ✓ *Communication involves users seeing their pictures on either machine.*
- ✓ *It allows for voice call communications.*
- ✓ *Recordings can be used for future reference.*

19.(a). Define the following terms:

(i). Record

(01 mark)

- ✓ *A record is a row in a table that contains information about a given person, product, or event.*

(ii). Field

(01 mark)

- ✓ *A field is a column in a table that contains a specific piece of information within a record.*

(b). State two advantages of using an electronic database over a manual database.

(02 marks)

- ✓ *It is easy to enter and retrieve data in a short period of time.*
- ✓ *A database stores data that is consistent and reliable since at each stage, it is checked for consistency and reliability.*
- ✓ *A database can store data for a very long period of time say 20 years and so in an archive.*
- ✓ *A database is flexible since it can be redesigned, to hold thousands of data.*
- ✓ *A database can be used by many people at the same time.*
- ✓ *Data is frequently updated after each single entry.*
- ✓ *Data is automatically saved as soon as data is entered into a database.*
- ✓ *Data can be retrieved in different formats e.g query, forms, reports, e.t.c.*

(c). Define the term validation rule.

(01 mark)

- ✓ *Is a method used to check that data falls within the appropriate range or parameter defined by the database user.*

20.(a). In a practical sense, state the meaning of the following:

(i). Clicking

(01 mark)

- ✓ *Clicking is most commonly used with a computer mouse when the pointer is placed over an icon or object and the button pressed once.*

(ii). Double click

(01 mark)

- ✓ *Double clicking is most commonly used with a computer mouse when the pointer is placed over an icon or object and the button is quickly pressed twice. This action, when performed without moving the location of the mouse, will produce a double click.*

(iii). Drag

(01 mark)

- ✓ *Is a pointing device gesture in which the user selects a virtual object by "grabbing" it and moving it to a different location or onto another virtual object.*

(b). Mention two uses of a mouse in data processing.

(02 marks)

- ✓ *To select a document.*
- ✓ *To play a computer game.*
- ✓ *To control movement of the cursor.*
- ✓ *To input text.*
- ✓ *To draw objects.*

End of set three!

SET FOUR:

1. (a). **State the difference between data and information.** (02 marks)
✓ *Data* refers to the raw facts entered into a computer, while; *Information* refers to processed data.
- (b). **Mention any two devices that can be used to transfer data from one laptop to another.** (02 marks)
✓ *External hard disk.* ✓ *Blu-ray discs.*
✓ *Flash disk.* ✓ *Magnetic tapes.*
✓ *Memory cards.* ✓ *Floppy diskettes.*
✓ *Compact disk.* ✓ *Blue tooth.*
✓ *Digital versatile disk.*
- (c). **Give one characteristic of a good computer.** (01 mark)
✓ *Speed.*
✓ *Accuracy.*
✓ *Storage.*
✓ *Diligence.*
✓ *Artificial intelligence.*
✓ *Automation.*
✓ *Versatility.*
2. (a). **What is computer literacy.** (01 mark)
✓ *Computer literacy refers to having knowledge and understanding of computers and their uses*
- (b). **State two ways a SUB ICT student can promote computer literacy in our society.** (02 marks)
✓ *Through undertaking computer training courses.*
✓ *Through attending workshops.*
✓ *Through practical hands on.*
✓ *Through reading computer related literature.*
✓ *Through carrying out research.*
✓ *By use of the internet where resourceful tutorials can be downloaded for use.*
- (c). **Give two limitations to computer literacy in our community.** (02 marks)
✓ *Computer phobia - people fear to use computers.*
✓ *Myths about using a computer e.g. You will kill your sight.*
✓ *Expensive hardware and software components.*
✓ *Restricted to well to do people.*
✓ *Some places lack connection to the power grid.*

3. (a). **State two possible ways of booting a computer.** (02 marks)
✓ *Cold booting.*
✓ *Warm booting.*
- (b). **What is the importance of RAM in the booting process.** (01 mark)
✓ *RAM provides the primary storage location where the main program in the operating system is stored for execution.*
- (c). **Define the following terms as used in relation to the Windows environment.**
- (i). **Log off.** (01 mark)
✓ *Log off or log out is a term used to describe the process of disconnecting from a network, user account or what occurs when your connection is lost.*
- (ii). **Hibernation.** (01 mark)
✓ *Hibernation is the process of powering down a **computer** while retaining its state.*

4. **Study the file path given below and answer questions following:**

C:\KCB-01\PCM\Desktop\Senior Six\EOTP1.docx

Identify the following parts:

- (a). **Root directory:** C:\ (01 mark)
- (b). **Computer Name:** KCB-01 (01 mark)
- (c). **File extension.** .docx (01 mark)
- (d). **Folder location.** Desktop (01 mark)
- (e). **Account Name.** PCM (01 mark)
5. Use the following words to fill in the spaces below: (05 marks)

Footer, Footnote, Endnote, Watermark, Caption, Drop cap, Mail-Merge

- (A). *Mail - merge*
(b). *Caption.*
(c). *Footnote.*
(d). *Watermark*
(e). *Drop cap*

6. (a). **Define the term software piracy.**

(01 mark)

- ✓ *It refers to the illegal/unauthorized copying, distribution and use of software.*

(b). **Give two dangers of software piracy to the user.**

(02 marks)

- ✓ *Leads to loss of income.*
- ✓ *Can lead to imprisonment of the offender.*
- ✓ *Leads to spread of computer viruses.*
- ✓ *Does not allow getting support from the software developer or service centre.*

(c). **Mention two ways software piracy can be controlled in our society.**(02 marks)

- ✓ *Copy protection system.*
- ✓ *Separate demo and full version.*
- ✓ *Online game features or online registration.*
- ✓ *Give discounts or lower the product price.*
- ✓ *Give your product for free.*
- ✓ *Don't give away your software source code.*
- ✓ *Legal action.*
- ✓ *Enforce copy rights.*

7. (a). **Distinguish between soft copy and hard copy.**

(01 mark)

- ✓ *A **soft copy** is an electronic copy of some type of data, such as a file viewed on a computer's display or transmitted as an e-mail attachment, **while**, a **hard copy** is a permanent reproduction, or copy, in the form of a physical object, of any media suitable for direct use by a person (in particular paper), of displayed or transmitted data.*

(b). **Mention two advantages of keeping data in a soft over hard copy.**(02 marks)

- ✓ *It eliminates the use of paper and ink.*
- ✓ *It makes editing and formatting simple.*
- ✓ *It stores a lot of data.*
- ✓ *It can be sent over a network to several people.*
- ✓

(c). **State two activities that can be carried out on a file.**

(02 marks)

- ✓ *Editing.*
- ✓ *Copying.*
- ✓ *Opening.*
- ✓ *Printing.*
- ✓ *Saving.*
- ✓ *Formatting.*
- ✓ *Merging files.*
- ✓ *Compressing a file.*

8. (a). **Explain how a shop-keeper can use a spreadsheet application.**

(03 marks)

	A	B	C	D
1	Item name	Quantity	Unit price	Gross Sales
2	Soda	20	800	
3	Doughnut	50	250	

4	Pancake	56	200	
5	Water	32	250	
6	Milk	12	800	
7	Yoghurt	45	250	

(c). **Mention any two data types entered into a spreadsheet program.**(02 marks)

- ✓ Text.
- ✓ Number.
- ✓ Formula.
- ✓ Percentage.
- ✓ Date / time
- ✓ Currency
- ✓

9. (a). Give **two** advantages of using an **e-mail** over **ordinary mail** for communication. (02 marks)

- ✓ *Emails are delivered extremely fast when compared to traditional post.*
- ✓ *Emails can be sent 24 hours a day, 365 days a year.*
- ✓ *Web mail means emails can be sent and received from any computer, anywhere in the world, that has an Internet connection.*
- ✓ *Cheap - when using broadband, each email sent is effectively free. Dial-up users are charged at local call rates but it only takes a few seconds (for conventional email, eg text only) to send an email.*
- ✓ *Emails can be sent to one person or several people.*
- ✓ *Computer files can be attached to an email.*
- ✓ *Records and copies are kept automatically.*
- ✓

(b). State the difference between **sign in** and **sign up** as regard to an e-mail software. (02 marks)

- ✓ **Sign in** refers to the process of using certain details to obtain access to a computer system or other restricted area, **while sign up** supplies the necessary information so as to open an account with an e-mail software.

(c). **Mention one computer crime related to use of e-mails today.** (01 mark)

- ✓ Spamming.
- ✓ Money laundering.
- ✓ Trespass.
- ✓ Identity theft.
- ✓ Spoofing.
- ✓ IP hijacking.
- ✓ Fraud.
- ✓ Distribution of offensive content.
- ✓ Distribution of pornographic content.

10.(a). **Define the term data communication.** (01 mark)

- ✓ **Data communications** refer to one computer transferring data, instructions, and information to another computer or some other computers.
- ✓

(b). **Mention two components of a data communication model.** (02 marks)

- ✓ Sending device.
- ✓ Receiving device.
- ✓ Communicating device.
- ✓ Communication software.

✓ *Communication channel.*

(c). Briefly, explain the following data communication tools:

(i). Blog. (01 mark)

✓ *Is a discussion or informational site published on the World Wide Web and consisting of discrete entries ("posts") typically displayed in reverse order (the most recent post appears first).*

(ii). Instant messaging. (01 mark)

✓ *Is a real-time communications service that notifies a user when one or more people are online and then allows the user to exchange messages or files with them.*

11.(a). Give the difference between the **internet and **World Wide Web**.** (01 mark)

✓ ***Internet** refers to a global interconnection of computer networks, **while**, Word Wide Web refers to a collection of several web pages linked together*

(b). Suggest two ways the internet can be used to improve teaching and instruction in your school. (02 marks)

- ✓ *Computer-based training.*
- ✓ *Distance learning through computer-based training and Web-based training.*
- ✓ *Simulations of experiments or real-life situations that may be hazardous.*
- ✓ *Electronic library system for searching, borrowing, and returning books.*
- ✓ *The School Administration and Management System (SAMS) for keeping records of students and producing report cards or other related documents.*
- ✓ *Edutainment, which is a type of educational software that combines education with entertainment.*

(c). Define the following web based tools:

(i). Search engine. (01 mark)

✓ *A search engine is a software program that can be used to find Web sites, Web pages, and files on the Internet.*

(ii). E-library. (01 mark)

✓ *An **electronic library** (also referred to as **digital library** or **digital repository**) is a focused collection of digital objects that can include text, visual material, audio material, video material, stored as electronic media formats (as opposed to print, micro form, or other media), along with means for organizing, storing, and retrieving the files and media contained in the **library** collection.*

12.(a). Mention two advantages of using a custom - tailored software over an off shelf application. (02 marks)

- ✓ *It is specifically designed for a particular requirement and can be tailored to fit in exactly with the way the business or organization wishes to operate.*
- ✓ *It can be customised to work with other software that operate with the potential to provide a fully integrated IT infrastructure across the whole organisation*
- ✓ *Users usually find it easier and more interesting to use as it does not contain unnecessary or redundant facilities.*
- ✓ *It is much more flexible than packaged software and can be modified and changed over time requirements and business practices change*
- ✓ *The user receives much better support and can in many cases talk directly to the developers concerned.*
- ✓ *If you are lucky and find a good developer then they can significantly add value to your company by suggesting alternatives, improvements and by acting as a source of IT advice and information*
- ✓ *The use of professionally developed bespoke software applications can give you a significant business advantage over your competition*
- ✓ *The software more closely meets your requirements, as it is developed especially for you.*
- ✓ *It can be more easily integrated with existing software/other systems you have, reducing data duplication.*
- ✓ *Custom software is able to perform tasks that your competitors cannot. Possibility to licence the software to other companies to get back some/all of the investment.*

(b). Give one way a good application software can be obtained legally. (01 mark)

- ✓ *Buying software from authorized vendor.*
- ✓ *Developing your own software.*
- ✓ *Downloading free ware.*

(c). Katongole wants to design a database for his shop. What will be the importance of the following to him?

(i). Primary key. (01 mark)

- ✓ *It uniquely identifies each record entered into a database.*

(ii). Data types. (01 mark)

- ✓ They attach specific characteristics onto data for proper manipulation.

13.(a). What is the practical difference between **backspace** and **delete key**? (01 mark)

- ✓ The **backspace** key erases a character to the left of the cursor, while the **delete** key erases the character to the right of the cursor.

(b). Describe the following statements:

(i). **Selecting text.** (01 mark)

- ✓ To choose an object or text so that you can manipulate / change it in some way once e.g., after choosing text it can be underlined.

✓

(ii). **Highlighting text.** (01 mark)

- ✓ To make text to look like it was marked with a highlighter pen.

(c). **Give any two components of a font.** (02 marks)

- ✓ Font size.
- ✓ Font colour.
- ✓ Font face.
- ✓ Font style.
- ✓ Underline style.
- ✓ Font effect.
- ✓ Character spacing.

14.(a). **What is a Graphical User Interface (GUI) environment.** (01 mark)

- ✓ It is a point and click software platform that involves the use of menus, icons, shortcut key and others.

(b). **Mention two advantages of using a Graphical User Interface (GUI) over a Command Line Interface (CLI).** (02 marks)

- ✓ It is user friendly.
- ✓ Commands and instructions are kept in pictorial objects - icons.
- ✓ It is easy to understand.

(c). **Give two factors a user will consider before buying a computer program.**

(02 marks)

- ✓ Cost of the program.
- ✓ Usability of the program.
- ✓ System requirements.
- ✓ Type of program needed.
- ✓ Free from computer bugs.
- ✓ Software support and call centres.
- ✓ Type and quality of software developer.

\Needs of the organization.

unctionalities of the program.

15. Write True (T) or False (F) against the following statements.

a). T

b). F

- c). F
- d). T
- e). T

16.(a). **Define a computer laboratory.** (01 mark)

- ✓ *A computer laboratory is a place where students learn practical uses of computers, such as programming or how to use a spread sheet program.*

(b). **State two ways computer hardware can be kept safe in a laboratory.**

(02 marks)

- ✓ *Burglar proofing the room.*
- ✓ *Installing fire prevention and control equipment.*
- ✓ *Providing stable power supply.*
- ✓ *Installing lightening arrestors on the computer room*
- ✓ *The room should be well laid out with enough space for movement.*
- ✓ *Dust and dump proofing the computer room.*
- ✓ *Cables and power sockets should be well insulated and of the correct power rating to avoid short circuits that can damage computer components.*
- ✓ *The users should not eat or drink in the computer laboratory.*

(c). **Mention two accidents commonly experienced in a computer laboratory.**

(02 marks)

- ✓ *Fire accidents.*
- ✓ *Skin cuts.*
- ✓ *Lightening.*
- ✓ *Electric shocks.*

17.(a). **Mention one example of chart that is appropriate to represent the following data selection.**

(i). **Rental expenditure for a year.**

(01 mark)

- ✓ *Pie chart.*
- ✓ *Doughnut graph.*
- ✓ *Line graph.*
- ✓ *Bar chart*

(ii). **Performance comparison for three streams A,B and C.**

(01 mark)

- ✓ *Column graph.*
- ✓ *Line graph.*
- ✓ *Scatter graph.*
- ✓ *Bubble graph.*

(b). **Give two characteristics of a good programming language.** (02 marks)

- ✓ **Simplicity:** *A good programming language must be simple and easy to learn and use.*
- ✓ **Naturalness:-** *A good language should be natural for the application area, for which it has been designed. That is, it should provide appropriate operators, data*

structures, control structures, and a natural syntax to facilitate the users to code their problem easily and efficiently.

- ✓ **Abstraction:-** Abstraction means the ability to define and then use complicated structures or operations in ways that allow many of the details to be ignored. The degree of abstraction allowed by a programming language directly effects its writ ability. Object oriented language support high degree of abstraction. Hence, writing programs in object oriented language is much easier. Object oriented language also support re usability of program segments due to this features.
- ✓ **Efficiency :-** Programs written in a good programming language are efficiently translated into machine code, are efficiently executed, and acquire as little space in the memory as possible. That is a good programming language is supported with a good language translator which gives due consideration to space and time efficiency.
- ✓ **Structured:-** Structured means that the language should have necessary features to allow its users to write their programs based on the concepts of structured programming. This property of a moreover, it forces a programmer to look at a problem in a logical way, so that fewer errors are created while writing a program for the problem.
- ✓ **Compactness :-** In a good programming language, programmers should be able to express intended operations concisely. A verbose language is generally not liked by programmers, because they need to write too much.
- ✓ **Locality :-** A good programming language should be such that while writing a programmer concentrate almost solely on the part of the program around the statement currently being worked with.

(c). State one example of a high level programming language.

(01 mark)

- | | |
|---------|-----------------|
| ✓ Ada | ✓ FORTRAN |
| ✓ ALGOL | ✓ Go |
| ✓ BASIC | ✓ Groovy |
| ✓ Blue | ✓ Java |
| ✓ C | ✓ Julia |
| ✓ C# | ✓ Lua |
| ✓ C++ | ✓ Object Pascal |
| ✓ COBOL | ✓ Pascal |
| ✓ D | ✓ PHP |

18.(a).Mention two services offered by an Internet Service Provider (ISP) (02 marks)

- ✓ Internet connectivity.

- ✓ Voice calls.
- ✓ Website hosting.
- ✓ Content filtering.

(b). Give two examples of ISPs in Uganda.

(02 marks)

- ✓ MTN
- ✓ UTL
- ✓ Airtel
- ✓ Smile
- ✓ Infocom
- ✓ Afsat
- ✓ Vodacom
- ✓ Smart

(c). What is the function of a web server?

(01 mark)

- ✓ Web servers are computers that deliver (serves up) Web pages.

19.(a). Mention one function of the following Windows' icons:

(i). Recycle bin

(01 mark)

- ✓ It keeps recently deleted work from the computer.

(ii). My Computer.

(01 mark)

- ✓ **My Computer** is shows all resources in the computer including drives, control panels and data.

(iii). Internet Explorer.

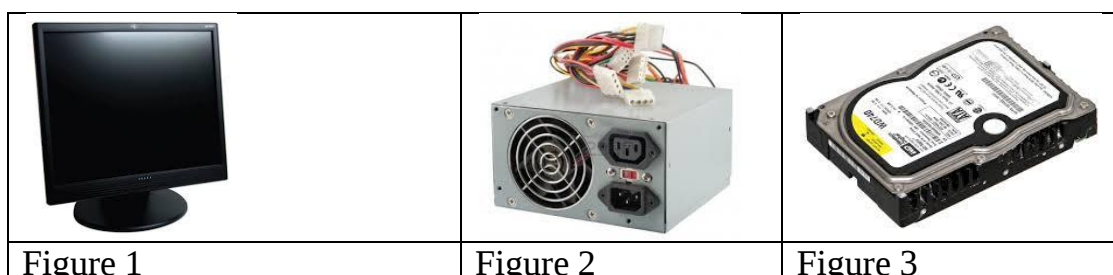
(01 mark)

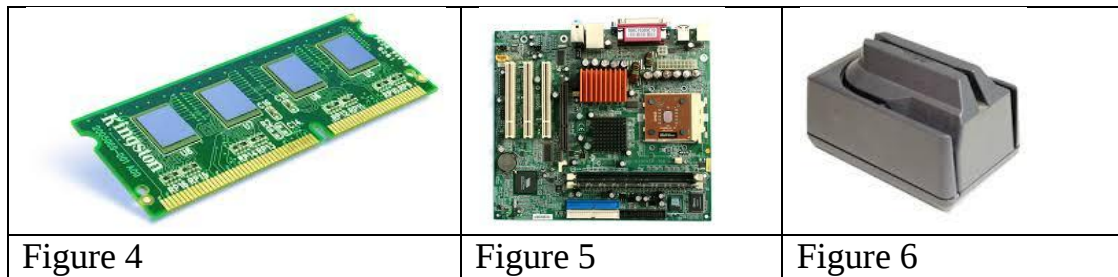
- ✓ **Internet Explorer** enables the user to view content in the Website.

(b). Why should a user shut down a computer well? Give two reasons.(02 marks)

- ✓ It enables the computer carry out its routine of file management well.
- ✓ It enables the computer to register components under its care.
- ✓ To enable the computer to start with no interruption at the next booting process.
- ✓ To control dangers of damaging the operating system.

20. Use the pictures below to answer questions following.





(a). Identify the components labelled:

(i). Figure 5. (01 mark)

✓ Motherboard

(ii). Figure 1. (01 mark)

✓ Monitor

(iii). Figure 4. (01 mark)

✓ RAM Chip

(b). State one function of the components labelled:

(i). Figure 2: (01 mark)

✓ A **power supply unit (PSU)** converts mains AC to low-voltage regulated DC power for the internal components of a computer.

(ii). Figure 3: (01 mark)

✓ A **hard disk drive (HDD), hard disk, hard drive or fixed disk** is a data storage device used for storing and retrieving digital information using one or more rigid ("hard") rapidly rotating disks (platters) coated with magnetic material.

End of set four!

SET FIVE:

1. (a). **Give the difference between data and information.** (02 marks)
 - ✓ *Data is a collection of raw facts entered into a computer, while, information is processed data.*
- (b). **State any two causes of data loss in a computer laboratory.** (02 marks)
 - ✓ *Accidental deletion.*
 - ✓ *Poor fluctuation.*
 - ✓ *Computer viruses.*
 - ✓ *System failure.*
 - ✓ *Software corruption.*
 - ✓ *Natural disasters.*
 - ✓ *Hardware problems e.g. Drive failures.*
 - ✓ *Computer theft and computer loss.*
- (c). **Suggest one way data loss in a computer laboratory can be controlled.** (01 mark)
 - ✓ *Use of passwords.*
 - ✓ *Backing up data.*
 - ✓ *Installing and activating firewalls.*
 - ✓ *Installing and updating computer antivirus programs.*
 - ✓ *Use of data recovery utility programs.*
 - ✓ *Sensitizing users.*
 - ✓ *Punishing offenders.*
 - ✓ *Creating resource access control rules.*
 - ✓ *Installing a data loss control software e.g. deep freeze.*
2. (a). **Define the term computer laboratory.** (01 marks)
 - ✓ *Is a place installed with computers and other resources occasionally used for practical study and activities like learning how to use a spreadsheet application.*
- (b). **State any two ways computers can be damaged in a laboratory.** (02 marks)
 - ✓ *Defacing computers by use of sharp objects like a campus.*
 - ✓ *Eating and drinking in the lab.*
 - ✓ *Placing computers on non flat surfaces.*
 - ✓ *Using un grounded power sources.*
 - ✓ *Opening a computer when it is running.*
 - ✓ *Moving the computer while it is running.*
 - ✓ *Working with a computer in a dusty environment.*
- (c). **Mention any two ways computers can be safeguarded against damage in a computer laboratory.** (02 marks)
 - ✓ *Placing a computer on a flat surface.*
 - ✓ *Avoid drinking and eating in a computer lab.*

- ✓ *By following strict rules in laboratory.*
- ✓ *Installing antivirus programs on the computers.*
- ✓ *Using of passwords.*
- ✓ *Instituting a user log.*
- ✓ *Sensitizing computer users.*
- ✓ *Punishing / fining offenders.*
- ✓ *Activating a firewall facility in the computer laboratory.*

3. (a). **Give the difference between cold and warm booting.** (02 marks)
- ✓ *Cold booting refers to starting a computer that was previously off, while, warm booting refers to starting a computer that was previously on.*

- (b). **State any two reasons for carrying out a warm boot.** (02 marks)
- ✓ *After installing a computer program.*
 - ✓ *After un installing a computer program.*
 - ✓ *After installing a new hardware component.*
 - ✓ *After un installing a hardware component.*
 - ✓ *After changing system settings.*

- (c). **Give one reason why a computer may fail to start.** (01 mark)
- ✓ *It could be having hardware problems.*
 - ✓ *It could be having a software problem.*

4. (a). **List three ways computers are used at home to promote education.** (03 marks)
- ✓ *Carrying out educational research.*
 - ✓ *Communicating educational issues with parents, colleagues, e.t.c.*
 - ✓ *Completing assignments, exercises and home works while at home.*
 - ✓ *Encourages educational online corroboration.*
 - ✓ *Encourages online teaching, examinations and other issues.*
 - ✓ *Students can carry out / do projects from home for example workgroup computing.*
 - ✓ *Students can play academic games for leisure activities.*
 - ✓ *Using the internet, students can access a wealth of information that might be needed to promote teaching and learning.*

- (b). **Give two advantages of carrying out online purchase.** (02 marks)
- ✓ *Faster buying/selling procedure, as well as easy to find products.*
 - ✓ *Buying/selling 24/7.*
 - ✓ *More reach to customers, there is no theoretical geographic limitations.*
 - ✓ *Low operational costs and better quality of services.*
 - ✓ *No need of physical company set-ups.*
 - ✓ *Easy to start and manage a business.*
 - ✓ *Customers can easily select products from different providers without moving around physically.*
 - ✓ *It is cheap.*

5. (a). What is a word processor? (01 mark)

- ✓ *It refers to using a computer to create, edit, and print documents.*

(b). List any three features of a word processing application. (02 marks)

- ✓ *Word-wrap.*
- ✓ *Find and search.*
- ✓ *Replace.*
- ✓ *Spelling checker.*
- ✓ *Grammar checker.*
- ✓ *Thesaurus.*
- ✓ *Mail merge.*
- ✓ *Automatic page numbering.*
- ✓ *Tables.*
- ✓ *Multi-columns.*
- ✓ *Macros.*
- ✓ *Clip art gallery.*
- ✓ *Mathematical formulae typesetting.*

(c). Give two practical activities done in a word processor and cannot be done by another application program. (02 mark)

- ✓ *Mail merging.*
- ✓ *Working with tables of content.*
- ✓ *Working with list of figures.*
- ✓ *Working with end notes.*
- ✓ *Carrying out simple calculations.*
- ✓ *Spell checking.*

6. In relation to a computer's keyboard, mention one practical use of the following keys:

(a). Backspace. (01 mark)

- ✓ *A key that erases a character to the left of the cursor.*

(b). Num lock. (01 mark)

- ✓ *When activated, enables the user to enter numbers off the numerical pad by default.*

(c). Functional keys. (01 mark)

- ✓ *A function key is a key on a computer or terminal keyboard which can be programmed so as to cause an operating system command interpreter or application program to perform certain actions.*

(d). Caps Lock. (01 mark)

- ✓ *When activated, text characters can be typeset in capital letters by default.*

(e). Space bar. (01 mark)

- ✓ *Enables the user to insert gaps in text being type set.*
- ✓ *Scroll through a webpage.*
- ✓ *To align text in office 2003.*
- ✓ *Pause music.*

✓ Play computer music.

7. (a). **Mention two features of a good computer.**

(02 marks)

- ✓ Fast processor speed.
- ✓ Automatic.
- ✓ Should have large storage.
- ✓ Should have artificial intelligence.
- ✓ Should reproduce accurate information.
- ✓ Should be diligent.
- ✓ Should be versatile.

(b). **The Headmaster of your school is to buy computers for the laboratory.**

Mention three specifications that He must consider before buying. (03 marks)

- ✓ Processor speed.
- ✓ Hard disk space.
- ✓ Amount of RAM
- ✓ Number and types of ports to use.
- ✓ The type of operating system to use.

8. **You are given the following table, study it and answer questions below.**

	A	B	C
1	Item	Quantity	Unit price
2	Daso	1,000	800
3	Afia	2,000	2,500
6	TOTAL OF UNIT PRICE		

(a). **How many columns do you see?**

(01 mark)

- ✓ 3 columns.

(b). **State one formatting feature used on the label TOTAL OF UNIT PRICE?**

(01 mark)

- ✓ Merge and centre.
- ✓ Upper case.
- ✓ Bold.

(c). **State the cell reference of the label TOTAL OF UNIT PRICE.**

(01 mark)

- ✓ A6

(d). **Give the formula for determining the total sales for Daso.**

(01 mark)

- ✓ =PRODUCT(B2:C2)
- ✓ =B2*C2

(e). **How many rows do you see on the spreadsheet above?**

(01 mark)

- ✓ 06 rows.

9. Briefly, state the major activity carried out during the following stages of information processing.

(a). Input (01 mark)

✓ *Data is entered into a computer.*

(b). Processing (01 mark)

✓ *Data is converted into information.*

(c). Storage. (01 mark)

✓ *Data / information is kept in various storage location for future use.*

(d). output (02 marks)

✓ *Information is reproduced or given out to the user.*

10.(a). State the three parts that make up the CPU. (03 marks)

- ✓ *Main memory.*
- ✓ *Arithmetic and Logical Unit (ALU).*
- ✓ *Registers.*

(b). Give one function of the following in relation to data processing and the CPU

(i). Data bus. (01 mark)

✓ *Provides the electronic pathway where data is moved during the data processing activity.*

(ii). Control bus. (01 mark)

✓ *The control bus carries signals that report the status of various devices.*

11.(a). Give two advantages of using secondary storage to a computer user.(02 marks)

- ✓ *They store large amounts of data.*
- ✓ *They are used to transfer data from one computer to another.*
- ✓ *They are used to store data for future use.*
- ✓ *They key computer files needed for the system to work.*
- ✓ *They are cheaper per unit storage capacity.*

(b). State two devices that use magnetic storage technology. (02 marks)

- ✓ *Magnetic tapes.*
- ✓ *Hard disk.*
- ✓ *Floppy diskette.*
- ✓ *Jazz disc.*

(c). Why is RAM said to be volatile? (01 mark)

✓ *Because it loses its content when power goes off.*

12. Write short note on the following terms as used in a presentation.

(a). Slide. (01 mark)

- ✓ *Is a single page in a presentation program.*

(b). Slide sorter. (01 mark)

- ✓ *A facility that enables the user to re-arrange*

(c). Master slide. (01 mark)

- ✓ *A single slide that controls appearance of slides in a presentation.*

(d). Transition loop. (01 mark)

- ✓ *A facility in a presentation that allows the slide to move continuously until escape or performing a given task to stop it*

(e). Speaker notes. (01 mark)

- ✓ *Notes that a speaker would like to make, to remind him of aspects to be covered for each slide, and include whatever the speaker wants - such as an example.*

13.(a). Give the three branches of system software. (03 marks)

- ✓ *Utility programs.*
- ✓ *Operating systems.*
- ✓ *Programming languages.*
- ✓ *Device drivers*
- ✓ *Firmware*

(b). State one:

(i). example of an application program. (01 mark)

- ✓ *Ms. Word.*
- ✓ *Ms. Excel.*
- ✓ *Ms. PowerPoint.*
- ✓ *Ms. Access, e.t.c.*

(ii). Category of an application program. (01 mark)

- ✓ *Word processing software*
- ✓ *Spreadsheet software*
- ✓ *Database software*
- ✓ *Presentation software*
- ✓ *Computer-aided design software*
- ✓ *Desktop publishing software*
- ✓ *Project management software*
- ✓ *Personal information managers*
- ✓ *Accounting software*
- ✓ *Paint and image editing software*
- ✓ *Video and audio editing software*
- ✓ *Multimedia authoring software*
- ✓ *Web page authoring software*
- ✓ *Personal finance software*
- ✓ *Educational software*
- ✓ *Reference software*

✓ *Entertainment software*

✓ *Communications software*

14. Use the following words to fill in the table below.

Light Emitting Diode, LCD, Speakers, Relay Switches and Motors, Printers

(a). A Light Emitting Diode indicates that a device is available, ready, e.t.c.

(b). Speakers produced analogue impulses from speeches, music, e.t.c.

(c). Printers can be used to produce a hard copy.

(d). Relay Switches and Motors are used in garages to accurately spray car body shells.

(e). LCD provide a display using a wide viewing angle.

15. (a). **Give the difference between a file and a folder.** (02 marks)

✓ *A file is a collected of data that is related, while; a folder is directory where many files can be stored.*

(b). **State two advantages of keeping files in a folder.** (02 marks)

- ✓ *It is easy to locate certain files.*
- ✓ *It makes the desktop area not congested with many files.*
- ✓ *It allows one to compress files.*
- ✓ *It allows one to move an entire block of files in one location i.e. Folders.*
- ✓ *It helps users to protect files by applying folder locks.*

(c). **Mention one way you can recover a file lost from your computer.** (01 mark)

- ✓ *Backing up data.*
- ✓ *Use of data recovery utility programs.*
- ✓ *Pressing undo.*

16. (a). **State any two parts that make up an e-mail address.** (02 marks)

- ✓ *User name.*
- ✓ *Domain name.*
- ✓ *An extension*
- ✓ *A separator (@sign)*
- ✓

(b). **Give two advantages of using an e-mail for data communication.** (02 marks)

- ✓ *Emails are delivered extremely fast when compared to traditional post.*
- ✓ *Emails can be sent 24 hours a day, 365 days a year.*
- ✓ *Webmail means emails can be sent and received from any computer, anywhere in the world, that has an Internet connection.*
- ✓ *Cheap - when using broadband, each email sent is effectively free. Dial-up users are charged at local call rates but it only takes a few seconds (for conventional email, eg text only) to send an email.*
- ✓ *Emails can be sent to one person or several people.*
- ✓ *Separate files can be added as an attachment for example documents, pictures, e.t.c.*
- ✓ *It provides notification about the delivery status of the mail.*
- ✓ *When you reply to an email you can attach the original message so that when you answer the recipient knows what you are talking about. This is important if you get hundreds of emails a day.*
- ✓ *Products can be advertised with emails. Companies can reach a lot of people and inform them in a short time.*

✓

(c). Mention one way your school can use an e-mail to promote education.

(01 mark)

- ✓ *The school can send holiday work to students.*
- ✓ *The school can send valuable documents to the parent like circulars, report cards, e.t.c.*

17.(a). Give two reasons for servicing computers regularly.

(02 marks)

- ✓ *Getting the most from technology,*
- ✓ *Protecting our personal information*
- ✓ *Protecting your data.*
- ✓ *Ensure continuous use of a computer.*
- ✓ *To remove dust from the computer.*
- ✓ *To replace worn out parts.*
- ✓ *To remove viruses and worms in the computer.*

(b). List three components you can use to service a computer.

(03 marks)

- | | |
|------------------------|-----------------------------------|
| ✓ <i>Screw driver.</i> | ✓ <i>Dust blower.</i> |
| ✓ <i>Form cleaner.</i> | ✓ <i>Wrist chains.</i> |
| ✓ <i>Cotton wool.</i> | ✓ <i>Necessary spaces, e.t.c.</i> |

18.(a). You are given the following URL, use it to answer questions below:

www.mak.ac.ug

(i). Write the domain name for the URL above.

(01 mark)

- ✓ *mak*

(ii). What is the meaning of:

.ac

(01 mark)

✓ *Top Level Domain Name.*

.ug

(01 mark)

✓ *Second Top Level Domain Name.*

(b). What is a website?

(01 mark)

✓ *Is a collection of related WebPages.*

(c). State one danger of using a website by an organization.

(01 mark)

✓ *Exposes users to pornography.*

✓ *Can lead to contraction of computer viruses.*

✓ *Leads to loss of man hour by lazy workers.*

✓ *Reduces the face - to - face interaction between workers and customers because of using online help desk.*

✓ *Exposes customers to cheater sites that can lead to exploitation.*

19.(a). Give two advantages of using bar code readers for data entry in supermarket.

(02 marks)

✓ *It reduces input errors.*

✓ *It is cheaper at data input.*

(b). I want to draw a sketch map of using, mention two input hardware devices I will engage.

(02 marks)

✓ *Light pen.*

✓ *Mouse.*

✓ *Digitizing tablet.*

✓ *Stylus pen.*

(c). I want to conduct a video conference with a friend, mention one item I will need.

(01 mark)

✓ *Web cam.*

✓ *Computer monitor.*

✓ *Head set (or speakers, microphones)*

20. In the table below, write True or False against each question following. (05 marks)

Item	True / False
(a). A mouse can be used to navigate computer icons in a GUI	T
(b). A shareware is a free copyrighted software.	T
(c). A blog can hold content in a reverse chronological order.	T
(d). A CPU can be used to keep a hard disk safe.	F
(e). Constant use of laptops by boys may lead to impotence.	F

End of set five

SET SIX:

1. (a). State the difference between hardware and software. (02 marks)

✓ Hardware refers to the tangible / physical parts or components of a computer, **While**, Software refers to a collection of scientific coded instructions that help a computer to work.

(b). Define the term data. (01 mark)

✓ Data refers to a collection of raw / meaningless / un processed / un summarised facts entered into a computer.

(c). Mention two devices that can be used to enter computer instructions. (02 marks)

- ✓ Keyboard.
- ✓ Mouse.
- ✓ Tracker ball.
- ✓ Joystick.
- ✓ Microphone.
- ✓ Remote controller.
- ✓ Touch pad / glide pad.
- ✓ Touch screen.
- ✓ QR code reader.
- ✓ Biometric devices (finger print recognition, iris reader, e.t.c.)
- ✓ Integrated pointing device (mainly on old laptop computers)

2. (a). Give the distinction between editing and formatting a document. (02 marks)

✓ **Editing** refers to correcting / adjusting / making corrections in a document to make it accurate (free from mistakes) **while**, **formatting** refers to making changes to enhance the appearance of a document.

The two statements should be correct for the award of the two 02 marks

(b). Outline any two editing features found in a word processor. (02 marks)

- ✓ Find and search.
- ✓ Spelling checker.
- ✓ Auto complete.
- ✓ Thesaurus.
- ✓ Grammar checker.
- ✓ Find and replace

(c). How is a light pen used in a word processor? (01 mark)

- ✓ It is used to draw oval objects in a word processor.
- ✓

3. (a). Mention two dangers of using a computer at home. (02 marks)

- ✓ Initial investment cost can be high (Setting up).

- ✓ *Extra cost is required to employ specialised staff to operate and design the data processing system.*
- ✓ *Some jobs may be lost due to computerization and thus lower the morale of staff members.*
- ✓ *Some staff has / have to be trained or retrained. Face-to-face interactions among staff may be reduced. Easier transmission of viruses via the internet, which may lead to creating untimely, costs to the recipient and sender computers.*
- ✓ *Computers load personal information, which may be misused. It is easy to misuse personal information held about an individual but privacy rights have been enacted to minimize this.*
- ✓ *Problems may arise when computers cannot be used either because they are malfunctioning or damaged. This can bring an organization to a halt if no backup exists.*
- ✓ *Security has to be provided to protect personnel and staff from preying eyes.*

(b). State any two parts that make up an e-mail address. (02 marks)

- ✓ *User name.*
- ✓ *A symbol @ that separates the username and a domain name.*
- ✓ *Domain name.*

(c). While composing a mail, what is the use of the “TO” field? (01 mark)

- ✓ *It is where the addresses of mail recipients or beneficiaries are written.*

4. (a). What are I/O devices? (01 mark)

- ✓ *These are computer peripheral devices that a user can work with to both input data and out put information from a computer.*

(b). State two examples of I/O devices. (02 marks)

- ✓ *All in one Printers.*
- ✓ *Touch screens.*
- ✓ *Digitizing tablets*
- ✓ *Digital cameras*

(c). Give two ways computers can be abused. (02 marks)

- ✓ *Putting heavy objects on to them.*
- ✓ *Leaving computers under the sun and heat.*
- ✓ *Eating and drinking near the computer.*
- ✓ *Installing and uninstalling computer software or hardware without permission.*
- ✓ *Using a computer to commit a crime like hacking.*
- ✓ *By not cleaning the environment where computers are being used.*
- ✓ *By labeling some parts using sharp objects like the screen.*

5. (a). State the difference between system and peripheral devices. (02 marks)

- ✓ **System devices** are computer devices found and located inside a computer's system unit / case or cabinet, e.g. fixed hard drive **while, Peripheral devices** are computer components that are connected to a computer's system unit e.g. a printer.

✓

(b). Define the term computer literacy.

(01 mark)

- ✓ Computer literacy refers to having the knowledge and understanding of computers and their uses.

(c). Mention any two examples of specialized application programs.

(02 marks)

- ✓ Accounting package.
- ✓ Computer Aided Design.
- ✓ Customer Relations Management (CRM).
- ✓

6. Using the following words, fill in the spaced provided for (a) to (e) below.

Videoconferencing, RSS feed, GPS, webcam, spreadsheets, video, simplex channel.

(05 marks)

(a). **GPS** can be used to locate objects in a given region.

(b). **Simplex Channel** is a single directional communication method.

(c). Multimedia is largely made up of a **video**.

(d). instant breaking news on a website can easily be accessed using a /an **RSS**

(e). Live and video instant communication using a website is referred to as **vide conferencing** and with it, a **webcam** is used to capture images for uploading.

7. Write short notes on the following:

(a). Peer – to – peer LAN network model.

(02 marks)

- ✓ Peer-to-peer LAN network architecture allows users to share resources and files located on their computers and to access shared resources found on other computers.

(b). Web server.

(02 marks)

- ✓ Is a dedicated computer that stores, distributes and manages web pages.

(c). State one advantages of using a network by an organisation.

(01 mark)

- ✓ User information is easily monitored to ensure privacy while using a network.
- ✓ Computers allow users to create and manipulate information. Information takes on a life of its own on a network.
- ✓ The network provides both a place to store the information and means to share that information with other network users.

- ✓ Administrators, instructors, students and guests can be connected using the campus network. This makes communication easy amongst users.
- ✓ An organisation can provide services, such as registration, school directories, course schedules, access to research, and email accounts, and many others.
- ✓ The school can provide network users with access to the internet, via an internet gateway.
- ✓ The school can provide access to special purpose computing devices which individual users would not normally own. For example, a school network might have high-speed high quality printers strategically located around a campus for instructor or student use.
- ✓ Computer networks enable people to access their information from connected devices throughout the organisation. Students can begin an assignment in their classroom, save part of it on a public access area of the network, then go to the media center after school to finish their work. Students can also work co-operatively through the network.
- ✓ Collaborative software allows many users to work on a document or project concurrently. For example, educators located at various schools within a county could simultaneously contribute their ideas about new curriculum standards to the same document, spreadsheets, or website.
- ✓ Computer peripheral devices can be shared e.g. printers, storage space, e.t.c.

8. (a). What is a computer laboratory?

(01 mark)

- ✓ Is a place where students learn practical uses of computers, such as programming or how to use a spreadsheet program

(b). State two ways air conditioning is important in a computer laboratory.

(02 marks)

- ✓ It regulates temperatures in the computer laboratory.
- ✓ It reduces the instances of dust in the computer laboratory.
- ✓ It helps in the cooling down of computers that have been working.
- ✓ It dispels insects that could build in the computer laboratory for example wasps.
- ✓ Some remove humid temperatures in the computer laboratory.

(c). Mention two reasons for servicing computers.

(02 marks)

- ✓ To guarantee continuous use of a computer.
- ✓ To remove dust particles from a computer.
- ✓ To upgrade computer software or hardware.
- ✓ To remove computer viruses from a computer.

9. (a). Give the difference between cold and warm booting.

(01 mark)

- ✓ **Cold booting** is the process of turning on a computer after it has been powered off completely, **While, Warm booting** alternatively referred to as a soft boot, a warm boot is one method of resetting a computer system that is already powered on.

(b). In relation to booting a computer, state one function of the following:

(i). pressing CTRL+ALT+DELETE**(01 mark)**

- ✓ *The computer is restarted.*

(ii). BIOS**(01 mark)**

- ✓ *Contains the basic input/output system (BIOS), which is a sequence of instructions the computer follows to load the operating system and other files when the computer is turned on.*
- ✓

(c). State two reasons a user may restart a computer.**(02 marks)**

- ✓ *Commonly used to recover from errors that cannot be recovered.*
- ✓ *When a computer locks or freezes.*
- ✓ *After installing of certain new software program.*
- ✓ *After installing a new hardware device like a flash disk.*
- ✓ *After uninstalling a hardware device.*
- ✓ *After uninstalling a software program.*
- ✓ *When the computer slows down.*
- ✓ *After changing CMOS or BIOS setup.*

10. (a). What is a computer virus?**(01 mark)**

- ✓ *Is a computer program that disturbs the routing performance of a computer.*

(b). State two ways computer viruses are transmitted.**(02 marks)**

- ✓ *By downloading files and software from the internet.*
- ✓ *By sharing and using storage devices in multiple computers.*
- ✓ *By opening e-mail attachments that are infected.*
- ✓ *By installing software that is already loaded with a virus.*
- ✓ *Through computer crime like hacking, cracking.*
- ✓ *By sharing files, devices, e.t.c. across the network.*

(c). Mention how the following can control the spread of computer viruses:**(i). Antivirus program.****(01 mark)**

- ✓ *It detects computer viruses.*
- ✓ *It cleans files that are infected with computer viruses.*
- ✓ *It isolates / quarantines / vaults computer viruses.*
- ✓ *It blocks installation of programs that are infected or whose certificate is not trusted.*
- ✓ *It scans files and devices with computer viruses.*
- ✓ *It deletes computer files that have viruses.*

(ii). Use of passwords.**(01 mark)**

- ✓ *It authenticates the user and provides access to a device, file, program or software.*
- ✓

11. You are given the following table:

	A	B	C	D	E
1	Item code	Name	Quantity	Selling price	Total Amount
2	C001	Mirinda	200	900	
3	C004	Pepsi	400	900	
4	C010	Quencher	600	900	
5	C030	Ribena	1,200	1,500	
6	C030	Rwenzori	800	1,500	
7	C100	PK Sweets	1,000	250	

(a). State the application program you will use to organise this work. (01 mark)

✓ *Spreadsheet application program.*

(b). What data type will be suitable for the data in the item code field? (01 mark)

✓ *AutoNumber.*

✓ *Text.*

(c). Write the formula that will return Total Amount for Ribena. (01 mark)

✓ *=C5*E5*

✓ *=PRODUCT (C5:E5)*

✓ *=PRODUCT(C5, E5)*

(d). what will happen when you enter Rwenzori after Ribena? (01 mark)

✓ *The spreadsheet is automatically updated.*

✓ *Values are automatically recalculated.*

(e). State one practical application of this program in your school. (01 mark)

✓ *To prepare roll call sheets.*

✓ *To prepare a school budget.*

✓ *To grade and analyse students' results.*

✓ *To manage and create teaching timetables.*

✓ *To prepare payrolls for workers.*

✓ *To track expenses like electricity.*

✓ *To track school assets like food and other stock items.*

✓ *It is used to prepare sitting plans for candidates.*

✓ *To prepare lists and assignment of index numbers automatically to students.*

12. (a). What is a software suite. (01 mark)

✓ *A software suite is a collection of individual application software packages sold as a single entity.*

(b). Give the difference between shareware and freeware programs. 01 mark)

- ✓ **Shareware** is copyrighted software that is distributed free for a trial period, and payment is required for using the software beyond that trial period, **While; Freeware** is copyrighted software provided at no cost to users.

(c). Write short notes on the following:**(i). software upgrade.****(01 mark)**

- ✓ A **software upgrade** is a purchase of a newer version of software you currently use of a more fully-featured version of your current software.

(ii). Software bug.**(01 mark)**

- ✓ Software bug refers to an error in the programming code that does not permit it to function.

(iii). Beta software**(01 mark)**

- ✓ Is a type of software provided to people for testing purposes.

13.(a). State two advantages of using e-commerce in business. (02 marks)

- ✓ Transactions can occur immediately and globally, thus save time for participants on both ends.
- ✓ Transactions can occur 24 hours per day.
- ✓ Businesses have access to millions of people with Internet connections.
- ✓ Businesses have the ability to gather customer information, analyze it, and react if appropriate.
- ✓ Information can be changed and be available quickly.
- ✓ Customers can compare prices easily.
- ✓ Feedback can be immediate.
- ✓ Manufacturers can buy and sell directly, avoiding the cost of the middleman.
- ✓ Distribution costs for information is reduced or eliminated.

(b). Mention one example of web browser.**(01 mark)**

- | | |
|---------------------|-------------|
| ✓ Internet Explorer | ✓ Dillo |
| ✓ Mozilla Firefox | ✓ K-Meleon |
| ✓ Opera | ✓ Kazexhase |
| ✓ Safari | ✓ Amaya |
| ✓ Google Chrome | |
| ✓ Konqueror | |
| ✓ Arora | |
| ✓ | |

(c). what is a:**(i). Web forum?****(01 mark)**

- ✓ Is a site where people discuss various topics.

(ii). Web mail?**(01 mark)**

- ✓ A site that provides a web mail service.

14. (a). Define the term computer communication.**(01 mark)**

- ✓ *Computer communication refers to one computer transferring data, instructions, and information to another computer or some other computers.*

(b). Mention any two tools of computer communication.**(02 marks)**

- ✓ *VoIP (VoIP, abbreviation of voice over Internet Protocol).*
- ✓ *Voice mail.*
- ✓ *Fax.*
- ✓ *E-mail, or electronic mail.*
- ✓ *BBS: A bulletin board system (BBS).*
- ✓ *Instant messaging.*
- ✓ *Chat rooms.*
- ✓ *Newsgroups.*
- ✓ *Internet telephony.*
- ✓ *Videoconferencing*
- ✓ *Groupware.*
- ✓ *Telecommuting.*
- ✓ *Global positioning system (GPS).*
- ✓ *FTP: (File Transfer Protocol).*

(c). Give two advantages of telecommuting to an organisation.**(02 marks)**

- ✓ *Reduces the time and expenses for travelling to and from work.*
- ✓ *Eliminates travelling during unsafe weather conditions.*
- ✓ *Allows a flexible work schedule for employees.*
- ✓ *Provide a convenient, comfortable work environment for disabled employees or those recovering from injury or illness.*
- ✓ *Reduces air pollution caused by vehicles driven to and from work.*
- ✓ *Employers reduce costs due to less office space and furniture is required.*

15. (a). Write the following acronyms in full:**(i). FTP****(01 mark)**

- ✓ *File Transfer Protocol*

(ii). BBS**(01 mark)**

- ✓ *Bulletin board service*

(iii). TCP/IP**(01 mark)**

- ✓ *Transmission Control Protocol*

✓

(b). Mention any two factors you will consider before establishing a network.**(02 marks)**

- ✓ *Cost of installation.*
- ✓ *Number of computers and other devices.*
- ✓ *Architecture of the building to be used.*
- ✓ *Purpose of the network.*
- ✓ *Distance of connectivity.*
- ✓ *Safety provisions of the network.*
- ✓ *Personnel provisions/technicalities involved.*
- ✓ *Ease in accessing the network/ speed on the network.*
- ✓ *Future growth of the organization and expansion of the network.*

16.(a). Give two forms of wireless communication devices.

(02 marks)

- ✓ *Broadcast radio.*
- ✓ *Cellular radio.*
- ✓ *Microwaves.*
- ✓ *Communications satellites.*
- ✓ *Infrared (IR).*
- ✓

(b). Mention one danger of using wireless communication in an organisation. . (02 marks)

- ✓ *Network security is a challenge to many organizations*
- ✓ *There is a lot of interference by obstacles like trees, e.t.c.*
- ✓ *Inconsistent connections.*
- ✓ *Wireless communication becomes slower when the user goes away from the hotspot.*

(c). Why are majority of organizations still using cable networks? (01 mark)

- ✓ *They are cheap to use and trunk.*
- ✓ *Signals are still strong even for a longer distance.*
- ✓ *Some computers are still using network interface cards that support cables only.*
- ✓ *Some computers have already established a cable network.*
- ✓ *Some organisations are still having network administrators who still feel that cables are still useful for data communication.*

17.(a). Give two differences between RAM and ROM.

(02 marks)

- ✓ *Content in RAM is temporary, while, contents in ROM are permanent.*
- ✓ *RAM is used to store files and programs currently the computer is working with, while, ROM stores its content for good.*
- ✓ *RAM is volatile and ROM is non volatile.*
- ✓ *RAM can be discussed when buying a computer, while, ROM is not mentioned at all.*
- ✓ *The amount of RAM can influence speed and performance of a computer, while, ROM has no relationship with the computers' speed.*
- ✓ *System requirements always emphasise and mention the amount of RAM the system should have as minimum for the proper performance of a software or hardware, while, ROM is not mentioned anywhere under the system requirements.*

(b). Write one function to the following parts in a CPU.

(i). Control Unit.

(01 mark)

- ✓ *It directs and coordinates most of the operations in the computer.*

(ii). Arithmetic and Logical Unit.

(01 mark)

- ✓ *It performs the arithmetic, comparison, and logical operations. Arithmetic operations include addition, subtraction, multiplication, and division.*

(iii). Registers.**(01 mark)**

- ✓ *Are high-speed temporary storage locations used to hold data and instructions.*

18.(a). State any two applications of artificial intelligence today in computing.**(02 marks)**

- ✓ *Game playing*
- ✓ *speech recognition*
- ✓ *understanding natural language*
- ✓ *Expert systems*
- ✓ *Computer vision*
- ✓ *Time sharing*

(b). Mention one branch of digital forensics.**(01 mark)**

- ✓ *Computer forensics*
- ✓ *Mobile device forensics*
- ✓ *Network forensics*
- ✓ *Database forensics*

(c). (i). What is green computing?**(01 mark)**

- ✓ *The creation of environmentally sustainable computing or IT.*
- ✓ *The study and practice of designing, manufacturing, using, and disposing of computers, servers, and associated subsystems—such as monitors, printers, storage devices, and networking and communications systems — efficiently and effectively with minimal or no impact on the environment.*
- ✓

(ii). Give one goal of green computing.**(01 mark)**

- ✓ *To reduce the use of dangerous materials,*
- ✓ *To maximize energy efficiency during the product's lifetime,*
- ✓ *To promote the recyclables or biodegradability of outdated products and factory waste.*

19.(a). Outline two duties carried out by:**(i). Computer support specialist.****(02 marks)**

- ✓ *A computer support specialist assists people when they are having technical trouble with their computers.*
- ✓ *Because most of the computer problems can be solved via e-mail or by phone, all computer support specialists need to possess excellent communication and explanatory skills as they need to be able to give step-by-step directions so customers can solve the problems themselves.*
- ✓ *They are usually responsible for installing everything from software, printers, Wi-Fi, and other computer tools and components.*
- ✓ *They teach customers how to properly use the new devices and even write instructional handbooks.*
- ✓ *They check company's computer systems every day to ensure they are operating correctly or working for a school and assisting other teachers and administrators who are having computer issues.*
- ✓ *Most of their work consists of dealing with people who are not as technologically gifted as they are and it's important that they remember this and be patient when customers do not understand how to correct the issue the first time.*

(ii).Systems designer.**(02 marks)**

- ✓ *They work in computer systems design create computer and IT systems that allow businesses and other entities to operate effectively and efficiently.*
- ✓ *They facilitate these computer and IT systems, working to design custom software programs, manage computer and information systems, as well as manage computer facilities.*

- ✓ Work may be done onsite for one particular company, or you might do your work on a contract basis for several organizations.
- ✓ Some computer systems designers specialize in a particular service, like websites, e-commerce, and data centers. Information security has become a growing concern for organizations, and computer systems designers are increasingly being used to manage these threats.
- ✓ Some work in computer operations centers if they specialize in facilities management and maintenance, and others are able to work from home or other remote locations.

(b). Mention one way you can care for a school network. (01 mark)

- ✓ Cables should not run on the floor.
- ✓ Network cables should not cross be crossed with electricity cables.
- ✓ Frequently, cables should be checked for ascertain that they are working well.
- ✓ Firewalls should be activated to ensure that hackers and intruders do not cross the network campus or neighbourhood.
- ✓ Some network gadgets should be made un available by encrypting or providing details for network log in.

20. (a). State the difference between a file and a folder. (01 mark)

- ✓ A file is a collection of related content that is stored as a single unit/entity **while;** A folder is a directory where many files are stored.

(b). Outline the steps you take to create a folder on your desktop. (02 marks)

- ✓ Right click the desktop,
- ✓ Select new, Folder.
- ✓

(c). Give two causes of data loss in an organization. (02 marks)

- ✓ System failure.
- ✓ Computer virus.
- ✓ Accidental deletion.
- ✓ Computer crime.
- ✓ Use of old storage devices.
- ✓ Poor handling of storage devices.

SET SEVEN:**WAKISSHA JOINT MOCK EXAMINATIONS****MARKING GUIDE****Uganda Advanced Certificate of Education****UACE- 2017****ICTS850/1**

- 1
 - (a) **Distinguish computer primary storage from secondary storage.**
 - Primary storage is temporary and usually internal, while secondary storage is permanent. (1mk)
 - (b) **State any two advantages of using compact disks for data storage.**
 - Lower cost of purchase
 - Non volatile
 - Portable or facilitate data transfer
 - Has high data stability
 - Not easily attacked by viruses
 - Have a bigger capacity than floppy diskettes

(Any 2 x 1 = 2 marks)
 - (c) **State the meaning of the following data storage concepts (2mks)**
Storage medium:
 - Is a physical material onto which a computer keeps/stores data e.g. CD, HDD ,Flash ,DVD etc**Storage drive:**
 - The device that retrieves/reads and writes data to and from a storage medium e.g. CD/DVD drive, Flash disk drive etc
2.
 - (a) **Briefly describe the concept of computer ethics**
 - Moral guidelines of computer users while buying, utilizing and disposing off computers or their parts. (2 marks)
 - The right or wrong behaviors exercised by computer users
 - (b) **State three unethical practices usually engaged in by ICT users.**
 - Phishing
 - Not alerting colleagues in cases of virus attacks
 - Sending un solicited mails/ messages
 - Using other people's ICT resources without their permission / knowledge.
 - Sending nude pictures o controversial content to others. erodes human dignity
 - Copying and using proprietary software without pay / prior permission of the manufacture or authorized vendor.
 - Plagiarism
 - Snooping / interfering into other people's files or mail boxes, and ICT works or resources.
 - Using ICTs to bear false witness.
 - Using ICTs to invade other people's privacy- hacking, phishing and pharming.
 - Using ICTs forge, steal and cone some innocent others.
 - Cracking
 - Hardware theft

- *Hacking*
 - *Spoofing*
 - *Denial of service attack*
 - *Spamming*
 - *Cyber bullying*
- (Any 3 x 1 = 3 marks)

3 (a) **Distinguish between mail merge and word wrap word processing concepts.**

- **Mail merge** is a word processing feature that allows one to create multiple letters from one main letter addressed to different people. While **word wrap** is a feature used to refer to automatic movement of the cursor to the next line. (2 marks)

(b) **State any three advantages of using electronic word processors.**

- *Have easy to use edit and formatting feature*
- *Outputs/ work can be sent and receive electronically*
- *Easy to use text search tools and wild cards*
- *Ease of duplication / sending to many recipients*
- *Works look more business-like*
- *Ease of file storage and retrieval*

(any 3 x 1 = 3 marks)

4. **Natural disasters can cause loss of data and important programs. As an ICT literate person;**

(a) **State three measures that can be taken to ensure that data and programs are not completely lost in cases of disaster.**

- *Backup in isolated places like on- line storage.*
- *Data recovery software.*
- *Utilities like Anti-virus and encryption utilities*
- *Use of very strong firewall*
- *Password*
- *Setup working rules and regulations. Like a school ICT use policy*
- *Educate about sensitivity of data at hand*
- *Works be done by professionals*
- *Fire extinguishers*
- *Alarm systems to warn on impending danger*
- *Use of water proof safes.*
- *Use of online storage*
- *Use of water and fire proofs*
- *Installation of conductors*
- *Use of fire extinguishers*
-

(b) **State two forms of disasters that can befall computer systems and installations.**

- *Terror attacks*
- *Virus attacks / logic bomb*
- *Destructive earthquakes*
- *Floods*
- *Lightning strikes*

- Acts of vandalism and burglars
- Land slides

(Any 2 x 1 = 2 marks)

5. **A problem with some computers in the computer lab was reported to a lab technician. Two of the technician's recommendations were for the school to install gadgets to regulate temperatures, and also buying a woolen carpet for the computer laboratory.**

- Air-conditioner (1 mark)*
 - Give two reasons to explain why the gadget suggested in 5(a) above is required in a computer room
 - Keep the computer lab cool all the time
 - Allow free and easy air circulation
 - Reduce the effects of excessive temperature variations on data busses and electric circuits.
- (Any 2 x 2 = 2 marks)

c. **State two benefits of a woolen carpet in a computer lab**

- Maintains room temperature
- Absorb dust
- Reduce on the effects of damage when small objects fall
- Reduce on the effects of electric shocks just in case of leaking electricity
- Absorbs moisture and keeps the lab warm all the time
- Reduces accidents like falling
- They are flame resistors

(Any 2 x 1 = 2 marks)

6 a) **State the following ICT networking terms**

(i) **Band width**

- Rate at which data signals travel through a communication media at a time
- Transmission capacity of a communication channel (1 mark)
- OR the difference between the highest and lowest frequencies that can be transmitted by a communication channel or media. (1 mark)

(ii) **Web server**

- Software that manages user for requests of web pages and other hyper media documents or data (1 mark)

(iii) **Client computer**

- These are computers that receive instructions from the server computers (1 mark)

(b) **State two factors one should consider when selecting a network model.**

- Cost / networking budget
- Size of the organization
- Security levels needed
- Nature of the organization or business
- Administrative support
- Number of computers
- Purpose of the network
- Type of topology (2 marks)

7. a) **Distinguish between synchronous data communication modes (1 mark)**

- A **synchronous** technology that parcels data into uniform simple and small cells (8-bytes cells) for high capacity transmission more especially for voice and video signals. Whereas,

Synchronous is the term used for technologies where users must be online at the same time in order to interact. This may include real-time chat, live conferencing or a scheduled online discussion.

b) Give two examples of data transmission media

- Radio waves
- Micro wave
- Fiber optic cables
- Coaxial cables
- WIFI
- Twisted pair cables
- Infrared
- Bluetooth

(Any 2 x 1 = 2 marks)

c) State two factors you would consider when choosing a data transmission media

- Security levels
- Cost / budget
- Distance
- Geographical / physical setup
- Band width
- Attenuation rate

(Any 2 x 1 = 2 marks)

8. Use the words at the BOTTOM to fill in the blanks and complete the gaps!

Any 5 x 1 = 05 marks)

fields • sort • database • table • record • search

9. a) State one situation where you can use a softcopy

- Electronic presentations
- Electronic data transfer
- Electronic data storage
- E – learning
- E-entertainment
- Data sharing
- Applying for a job online

(Any 1 x 1 = 1 marks)

b) Give two advantages of using softcopies over hardcopies

- *Ease of access*
 - *Easy to edit and format*
 - *Easily to distribute electronically*
 - *Reduce storage space considerably*
 - *Ability for online storage*
- (Any 2 x 1 = 2 marks)

c) List down two examples of impact printers

- *Dot matrix*
 - *Daisy wheel*
 - *Drum printers*
 - *Line printer band printers*
 - *Braille printers*
 - *Band printers*
- (Any 2 x 1 = 2marks)

10. a) Briefly define the following terms as used in networks and internet based communications

(i) Internet

- *Is a global or an international interconnection of computers and LAN.*
- *Is the largest Network of Networks.* (1mk)

(ii) Intranet

- *Is a LAN that uses WWW or internet standards/ protocols to relay data and information within an organization* (1 mk)

(iv) Extranet

- *Is an extended intranet of an organization to its customers and suppliers (1mk)*

b) State two examples of web browsers

- Opera
- Internet explorer
- Mozilla Firefox
- Emissary
- Web surfer
- Netscape navigator
- Google chrome
- Mosaic
- Safari
- Comodo ice dragon
- Water swift fox
- Swift weasel and ice weasel
- Sky fire
- Conqueror
- Lunar scape
- Arora
- IBM Web explorer
- Lynx, etc

(Any 2 x 1 = 2 marks)

11 a) Define the concept of computer system security

- Measures / steps taken to protect computer systems to ensure that they are accurate and reliable. Also focuses on system quality assurance, vulnerability and abuse.

(1 mark)

b) Define the concept of firewalls in ICT systems?

- A combination of hardware and software placed that stands between an organizations internal network and an external network to prevent outsiders from invading their private network.

c) State three threats faced by organizations as a result of computer networking

- Networking maintenance costs (for initial capital outlay , servicing and network repairs)
- Effects of virus attacks
- Network related crimes and abuse like hacking, cyber bullying and unsolicited messages.
- Effects of network changes and failures – work can be adversely affected

(Any 3 x 1 = 2 marks)

12. Give one characteristics of the following spreadsheets cell data type;

Labels:

- Not subjected to arithmetic operations
- Left aligned in the cell by default
- Put in quote when they appear in logical functions

(Any 1 x 1 = 1 mark)

Values:

- They are right aligned in the cell by default
- Purely generated from counting numbers
- They are subjected to arithmetic operations

(Any 1 x 1 = 1 mark)

b) Study the logical function below to answer its related questions:

=RANK (B2,\$B\$2:\$B10,0)

(i) State the output of the above function

- The function will rank or position all the cell range B2 to B10 in descending order(1 mark)

- (ii) **State one reason as to why the dollar sign is used on cell B10**
 - *To make its address absolute OR,*
 - *To ensure that the cell range does not change as the formula gets pasted to other cells.*

(Any 1 x 1 = 1 mark)
- (iii) **State the implication of having a zero at the end of the function**
 - *To define the order of ranking as descending order i.e., the highest score takes the first position.*

13. “ICTs have been grossly abused.” This was a lamentation by one of the parents who attended the S.6 class day of The Girls School.

- a. **State one category of ICT abusers:**
 - *Individuals*
 - *Institutions / organizations*
 - *Hackers*
 - *Crackers*
- b. **Give two ways in which ICTs are being abused**
 - *Forging documents*
 - *Abuse and insult others*
 - *Platforms for communicating , watching and storage of pornographic materials plus other controversial content*
 - *Vandalism*
 - *Replacing people*
 - *Baring of false witness*
 - *Used to cheat and waste time*

(Any 2 x 1 = 2 marks)
- c. **Suggest some two etiquette guidelines to facilitate appropriate ICT usage**
 - *Sending warnings to colleagues in cases of virus attacks*
 - *Asking permission from people before sending them messages*
 - *Using authorized software*
 - *Proper identification whenever using networks including social networks*
 - *Respect of proper rights and ownership*
 - *Respect of humanity and dignity*
 - *Espec for the environment with god disposal policies*
 - *Respect for privacy*
 - *Use of descent ICT games*
 - *Avoiding sharing of passwords*
 - *Avoid spamming*
 - *ICT equipment should be switched off when not in use*
 - *Avoiding snooping into others files and folders*
 - *Password it*

(Any 2 x 1 = 2 marks)

- Encryption
- Lock and key
- Biometric devices
- Secures the network –fire walls , server base model
- Software audits
- Customize the software backup policy
- Educate
- Working rules and regulations
- Anti –virus utilities
- Avoid unnecessary sharing
- Data destruction and recovery policy and plan (Any 2 x 1 = 2 marks)

(b) State one area in each case, where the following data transmission modes can be used.

(03 marks)

Mode of transmission	Area of application
Full duplex	Mobile telephone operations
Half duplex	Fax machines, credit cards, verification systems, radio calls transmission for security
Simplex	• General radio waves transmission • Television transmission • Keyboard operations (1 mark)

15. Define the concept of “wildcards” as used in Data Base Management (DBMS)?

- A **wildcard** is a special character that can stand for either a single character or a string of text. (1 mark)

b) State two importances of wildcards in query criterion?

- Used to search for data within the table
- Wildcards are useful when you want to query to look for a range of different possible values, and also
- Also useful when you are not certain exactly what you are looking for but can give the query some clues to work with. (Any 1 x 2 = 2 marks)

c) State two frequently used wildcards used in DBMS

- Asterisk (*) represents any string of text from nothing up to an entire paragraph or more.

- Question mark (?) represents a single character only. (although you could use , for example ,two question marks to represent two unknown characters.
(2 x 2 = 4marks)

16. (a) Briefly explain how each of the following devices contributes to the general operations of a computer system

(i) Hard disk

- Holds /keeps the operating system plus important utilities
- Keeps update for reference
- Supplements RAM

(ii) Power Supply unit

- Distributes electric power in the system unit
- Regulates electric power
- Converts from AC to DC

(iii) RAM chips

- Holds data being displayed on the computer screen
- Contributes to the processing speed

b) State two methods you can use to enhance the speed of a computer

- Increase RAM capacity where applicable
- Virus cleaning and protection
- Remove unnecessary files and programs
- Re-install the O.S (Any 2 x 1 = 01 marks)

17. (i) Define the concept of “crop marks” used in desktop publishing . (2 marks)

- Crop marks are marks which facilitate trimming o business cards.

(ii) State three features of Desktop Publishing Software.

- Similar features as a word processor but rich / enhanced like text boxes ,text formatting features , drawing and graphics tools
- Most DTP packages provide a large, readymade range of professional looking templates to enable one to quickly and easily create a publication.
- Easy to use wizards which guide you through creating a publication.
- Frames/ place holders that allow text and images to freely move around the page .

(Any 3 x 1 = 2 marks)

18. Differentiate between the following

(i) Cracking from hacking

- **Hacking** involves unauthorized access in to the computer systems. It can be legal or illegal

Whereas **cracking** involves tampering with security codes of the software product or file for personal gains.

(1 mark)

(ii) Eavesdropping from denial of service attack

- **Eavesdropping** involves secretly spying onto one's computer activities physically or by use of spy ware. Whereas **denial of service attack** involves engaging a network user to deny him /her the right of using the network line. (1 mark)

(iii) Virus from a worm

- A **Virus** is a potentially damaging computer program malware, while a **worm** is a malware that copies itself repeatedly, using up resources and possibly shutting down computer or network.

(1 mark)

(iv) Digital forensics from artificial intelligence

- **Artificial intelligence** is the process of building computer systems that simulate human thought process and actions. Whereas **digital forensics** is an ICT career involving the recovery and investigation of material found in digital devices, often in relation to computer crime. (1 mark)

(b) Give one example of biometric devices

- Mouse finger print scanner
- Door scanner
- Facial scanner
- Computer scanner
- Signature verification scanner
- Iris scanner
- Finger print scanner

19. a) Briefly explain the following terms as used in internet based technology ;

Handle

- Is an online name for an internet user (1 mark)

Blog

- Is a personal online journal for personal opinions/ ideas

Social network

- Are highly interactive virtual/ computer based platforms through which people create, share, discuss/ exchange, and modify user-generated content. (1 mark)

(b) Give one example of a web browser

- Internet explorer
- Mozilla Firefox
- Google chrome
- Opera
- Etc.

c) Briefly describe one danger of controversial content that circulates through the internet.

(1 mark)

Dangers of slanderous and pornographic content;

- *Can cause/ promote hatred*
- *Vulgarized sex*
- *Dangers of rape, defilement and indecent assault out of excitement.*
- *Loss of dignity*
- *Sexual addiction*
- *Insecurity*
- *Violence and strikes*
- *Virus infection*

20. Hilda prefers to store her documents online rather than removable devices.

(a) What is online storage? (1 mark)

- *Refers to the practice of storing electronic data and third party service accessed via the internet.*

(b) State two examples of cyber (online) storage facilities you know.

- ✓ *Google drive*
- ✓ *Skydrive*
- ✓ *Drop box*
- ✓ *Open drive*
- ✓ *Drive HQ file manager*
- ✓ *One drive*
- ✓ *I Cloud*
- ✓ *Box all vie*
- ✓ *Sugar Sync.*
- ✓ *Amazon cloud drive*
- ✓ *Windows live mesh*
- ✓ *Box.net*
- ✓ *Spider Oak*

(c) Give one advantage of using cyber storage over removable devices.

- ✓ *Enables free sharing of files and folders with other users.*
- ✓ *Provides large and limitless storage space.*
- ✓ *Can be accessed from anywhere provided the user has internet connection.*
- ✓ *Provides security features to protect the data and third party files.*
- ✓ *It provides quick recovery of your files and folders.*
- ✓ *It provides for automatic and quick data*

(d) How can Hilda ensure security of her data held by online data banks? (1 mark)

- ✓ *Pick password.*
- ✓ *Don't reuse your passwords.*

- ✓ Don't share your passwords.
- ✓ Back up your data.

END

SET EIGHT (JJEBS 2016)

1. a) State two reasons for studying subsidiary ICT in Uganda

- ✓ Helping the learner develop and consolidates his/ her knowledge of ICT
- ✓ Aware of new and emerging technologies
- ✓ Encouraging the learners to develop as an independent user
- ✓ Encourage the learner to develop ICT skill to enhanced their work in a variety of subject areas
- ✓ Equip the learner with skills for lifelong learning
- ✓ Source of career opportunities informed decision making power
- ✓ To fit in modern societies of technologies

b). Give two characteristics of a good data processing system

- | | |
|---------------------------|--------------------------------|
| ✓ Accuracy | ✓ Speed |
| ✓ Reliability | ✓ Completeness |
| ✓ Large storage | ✓ Cost effectiveness |
| ✓ Artificial intelligence | ✓ Understandable/user friendly |

c).State one limitation to computer literacy in Uganda

- ✓ High levels of illiteracy
- ✓ High cost of acquisition of computer facilities
- ✓ High cost of operation and maintenance
- ✓ Technological phobia
- ✓ Low supply of teaching staff
- ✓ Poor attitude of many Ugandans
- ✓ Lack of power/Electricity

2. a) Define the term computer hardware

- ✓ Refers to the physical parts that makes up a computer system

b) Mutaka had data of about 2GB. Mention three hardware devices that he would use to store his data

- | | |
|--------------------------|------------------|
| ✓ Computer disk of 700MB | ✓ magnetic tapes |
| ✓ Floppy diskettes | ✓ Flash disks |
| ✓ Mini DVDs | ✓ Memory cards |

✓ Blue-ray discs

✓ LS200 DISKS

(C). State one function of light Emitting Diode to a user

✓ To show whether a device is on or off

✓ To show whether the hard disk is busy or idle

3(a). State two factors to consider before setting up a computer laboratory

✓ Cost of workstation hardware

✓ Cost of net working

✓ Nature/modal/cost of networking

✓ The number of computer users

✓ Upgrade path

✓ Computer specifications

✓ Quality and nature of furniture

✓ Other accessories/peripherals

✓ Mode of accessibility of computer resources and laboratory

✓ Additional software

✓ Maintenance costs

✓ Physical security

✓ The number of computers

(b). Give two ways you would care for a computer disc.

✓ It should be stored correctly.

✓ CD/DVDs must be stored in a cool place.

✓ CD/DVDs must be stored in a dry place.

✓ CD/DVDs must not be exposed to direct sunlight.

✓ It is best to anchor your CD/DVDs on the anchoring pins, inside the box; this leaves the surface in air.

✓ Cases that can hold multiple CD/DVDs might assure convenience; what it may not assure are scratches. Exercise cautions when using such cases/albums.

✓ When buying albums/cases, choose one that provides the softest lining possible.

✓ Lining if removal, must not be exposed to air else it could accumulate dust.

✓ CD/DVDs album /cases must not be left outside; dust particles could accumulate in.

✓ Protect your CD/DVDs' surfaces from finger touches.

✓ Wiping if ever, must be done with a soft wiping cloth/cotton lint.

✓ Smudges must be wiped clean.

✓ They must be kept away from reach of children

✓ Keep them out of reach of pets.

✓ Use water-based permanent marker to label the rough surface.

✓ Do not allow ink to reach recording surface.

✓ Exercise all precautions you can when placing it on the DVD tray so it does not scratch.

✓ Do not keep the disc at any place other than the tray or its case.

c) What is the importance of troubleshooting in computer?

- ✓ *To trace and correct faults in a performing of hardware or software*

4. (a) Distinguish between a worksheet and workbook.

- ✓ *A **Worksheet** (also known as a spreadsheet) is a collection of cells on a single sheet where you actually keep and manipulate the data while a **workbook** is a collection of several work sheets*

(b) Explain the following spreadsheet functions as used:

i. IF

- ✓ *Used for grading*
- ✓ *It tests to see if a certain condition in a spreadsheet cell is true or false*

ii. MAX

- ✓ *It returns the highest value or number in a range of selected cells*

iii. RANK

- ✓ *It returns the position of a given value in a range of cells either in ascending or descending order.*

5. (a). Define a computer file.

- ✓ *A computer file is an object on a computer that stores data, information, settings, or commands that are used with a computer program.*

Or

- ✓ *Is a collection of data stored as one unit/named location*

(b).State two ways computer files can be protected from damage.

- ✓ *Use file-level and share-level security*
- ✓ *Use disk encryption.*
- ✓ *Make use of public key infrastructure.*
- ✓ *Hide data with steganography program.*
- ✓ *Protect data in transit with IP security.*
- ✓ *Secure wireless transmissions.*
- ✓ *Use rights management to return control.*
- ✓ *Making regular backup of files (backup copies should be stored in fireproof safe or in another building)*
- ✓ *Protecting you against viruses by running anti-virus software.*
- ✓ *Use a system of pass words so that that access to data is restricted.*
- ✓ *Safe storage of important files stored on removable disks, e.g. locked away in a fireproof and water proof safe.*

- ✓ *Allowing only authorized staff into certain computer areas, eg by controlling entry to these areas by means of ID cards or magnetic swipe cards.*
- ✓ *Using data encryption techniques to code data so that it makes no apparent sense.*
- ✓ *Always logging off or turning terminals off and if possible locking them.*
- ✓ *Avoiding accidental deletion of files write- processing disks.*

(c) Give two ways that can lead to file corruption in a laboratory. (02 marks)

- ✓ *Abrupt switching off of the computer.*
- ✓ *Computer turned off improperly.*
- ✓ *Error with how a program saves the file.*
- ✓ *File is converted from one format to another improperly.*
- ✓ *Bad hardware, e.g bad or failing hard drive.*
- ✓ *Computer viruses.*
- ✓ *Un experienced users.*
- ✓ *Accidental deletion.*

6. a) Give two advantages of using half –duplex devices by an organization.

- ✓ *Essentially a free means of communication.*
- ✓ *Direct Instant Communication from one person to another.*
- ✓ *It is good deal with emergencies and safety.*
- ✓ *Convenient in short distances like between offices.*
- ✓ *Relatively cheap in terms of use and cost.*
- ✓ *Simple and Easy to use.*
- ✓ *Easy to implement.*

(b).State any three devices found in a communication channel.

- ✓ *Sending devices,*
- ✓ *Receiving devices*
- ✓ *Communication devices*
- ✓ *Encoders and decoders*
- ✓ *Or examples of the above e.g computers, modem, router, satellite, e.t.c.*

7. Write down TRUE or FALSE against each of the following sub sections (a) to (e)

	Item	T/F
(a)	To locate a resource on the internet , I need a search engine	T
(b)	A program is a collection of several software tools	F
(c)	A repeater amplifies signal strength in a network	T
(d)	An internet café provides free internet to users	F
(e)	A browser interprets HTML tags to display content	T

8 (a) State two ways computer software can be obtained legally.

- ✓ *Buying from authorized software venders*
- ✓ *Creating own software*
- ✓ *Downloading a freeware*
- ✓ *Getting as a donation for example drivers that come with hardware devices*
- ✓ *Getting from friends*

(b) Give two advantages of using public domain software.

- ✓ *It's generally free*
- ✓ *It's continually evolving in real time as developers add to it and modify it.*
- ✓ *Using public domain software also means you are not locked in to using a particular vendor's system*
- ✓ *You can modify and adapt software for your own business requirements*
- ✓ *Its generally user friendly*

(c) What is the importance of an anti virus program in your computer

- ✓ *It protects a computer against virus scare*
- ✓ *It blocks any unauthorized incoming connections to your network or computer*
- ✓ *Can protect you from the spyware and identify theft*
- ✓ *It regularly scans and checks for viruses on a computer*
- ✓ *It deletes detected viruses*

9 (a) In relation to a computer monitor, write the following abbreviations in full

i. PIXEL

- ✓ *Picture Element*

ii. CRT

- ✓ *Cathode Ray Tube*

(b) Give two characteristics of primary memory

- ✓ *Very closely connected to the processor*

- ✓ Holds programs and data that the processor is actively working with
- ✓ The processor interacts with it millions of times per second.
- ✓ The contents are easily changed
- ✓ Relatively low capacity
- ✓ Fast access
- ✓ Content is volatile e.g RAM.

(C) State one text input hardware device

- | | |
|------------------|--------------------------------|
| ✓ Keyboard | ✓ QR code reader |
| ✓ Stylus pen | ✓ Touch screen |
| ✓ Mouse | ✓ Magnetic strip card reader |
| ✓ Barcode reader | ✓ Voice recognition equipments |

10(a) In relation to a presentation program, describe the following facilities:

i. Placeholder

- ✓ A placeholder is a box with a dotted outline, designed for the placement of content on the slide

ii. Rehearsed timing

- ✓ A feature used to record the time that you need to present each slide, and then use the recorded times to advance the slides automatically when you give your presentation to your actual audience.

(b) State two qualities of a good presentation

- | | |
|---|---|
| ✓ Should have consistent and simple design. | ✓ Should have minimal animations. |
| ✓ Points should be short and precise | ✓ Should have relevant graphics and images. |
| ✓ Should be clear and visible to the audience | ✓ Each slide should discuss a specific topic. |
| ✓ Should have a simple background | ✓ Should have a good speed to enable members of the audience to follow. |

c) Suggest one way a presentation program is used to encourage teaching and learning

- ✓ Advertising new books in the library.
- ✓ To display class notes and experiments for use in class.
- ✓ Used in parents/school meetings.
- ✓ Used in debates and counseling sessions.

- ✓ Conducting workshops/seminars.

11.(a).List two goals of green computing.

- **Green use:** *Minimizing the electricity consumption of computers and their peripheral devices and using them in an eco-friendly manner.*
- **Green disposal:** *Re-purposing an existing computer or appropriately disposing of, or recycling, unwanted electronic equipment.*
- **Green design:** *Designing energy-efficient computers, servers, printers, projectors and other digital devices.*
- **Green manufacturing:** *Minimizing waste during the manufacturing of computers and other subsystems to reduce the environmental impact of these activities.*

(b).State two biometric devices used as identification tools by a user.

- | | |
|------------------------------|-----------------------------------|
| ✓ A fingerprint scanner. | ✓ Signature verification devices. |
| ✓ Hand geometry devices. | ✓ Iris recognition devices. |
| ✓ Face recognition devices. | ✓ DNA devices. |
| ✓ Voice recognition devices. | |

(c).Mention one use of digital forensics to an organization.

- ✓ *Helps reconstruction past events or activity (timeline)*
- ✓ *Shows possession/handling of digital data*
- ✓ *Shows use of IT infrastructure and services*
- ✓ *Shows evidence of policy violation or illegal activity*

12.(a). Define computer networks protocol.

- ✓ *Is formal standard and policy comprised of rules, procedures and formats that define communication between two or more devices over a network.*

(b).State two advantages of using fibre optic cable for data transmission.

- ✓ *Investing in fiber-optic internet can significantly increase your bandwidth potential.*
- ✓ *It guarantees good speed for both download and upload.*
- ✓ *It offers long distance data transmission without fear of strength loss and interference.*

- ✓ *It is cost effective in the event of increasing internet security.*
- ✓ *By nature of its make, it is extremely reliable in data transmission.*
- ✓ *Fiber cable's speed is not connected to its size, and it's far lighter weighter than copper. This renders it easier to use and less demanding of limited space in small rooms.*
- ✓ *It is cheaper in the long run to use fiber optic cables for data transmission*
- ✓ *It is prone to damages during repair and maintenance as the case may be with other cable types.*

c) Give two network devices you would need to set up a client –to-server network modal. (02mks)

- ✓ *Crimping tool*
- ✓ *Computer sets*
- ✓ *Network switches /hubs*
- ✓ *Network cables*

13. a) State any two parts that make up the central processing unit.

- ✓ *Control unit*
- ✓ *ALU*
- ✓ *Registers*

b) . Give two devices that can be upgraded to improve performance of the CPU

- ✓ *Hard disk*
- ✓ *RAM*
- ✓ *Video cards*

(c). Mukwaya was printing a document and all the sudden, the printer stopped.

Suggest one possible cause to this.

- ✓ *May be there tonner was used up.*
- ✓ *May be there was paper jam*
- ✓ *May be there were no paper s in the paper tray*
- ✓ *May be power went off.*
- ✓ *May be the printer was disconnected mid way the printing exercise*
- ✓ *When the printing drivers have crashed*

14. (a) Give the difference between freeware and shareware.

- ✓ ***Freeware** is copyrighted software provided at no cost While, **Shareware** is copyrighted software provided on a trial basis.*

(b).State three divisions of system software.

- ✓ *Utility programs /service programs /system utilities*
- ✓ *Operating systems.*
- ✓ *Programming language translators/ processors*

15 (a). Give two advantages of keeping computer files in soft copy over hardcopy.

- ✓ *Easy to edit.*
- ✓ *Easy to transfer to other computers and networks.*
- ✓ *Easy to protect against damages.*
- ✓ *Easy to format*
- ✓ *Takes a small space.*
- ✓ *Can be used by many people at the same time.*
- ✓ *Reduces the cost of printing. Volumes and volumes of paper*

(b) State two uses of a file extension.

- ✓ *It helps you identify the type of document.*
- ✓ *A file extension also allows your computer to run the correct program automatically when you double-click on the file.*

(c) State one requirement for a good file name.

- ✓ *Avoid extra long file names and complex hierarchical structures use information-rich in filenames instead*
- ✓ *Use simple and easy to remember file names.*
- ✓ *Do not use spaces and other characters such as! # \$ % etc*
- ✓ *It should be connected to the file content as much as possible*

16(a) State the difference between internet and the world wide web.

- ✓ **Internet** is a global communication network that allows almost all computers world wide to connect and exchange information while **world wide web (Www)** Is a network of online content that is formulated in HTML and accessed via HTTP

b) A company would wish to monitor their trucks. Mention two data communication tools can be employed for this work.

- ✓ *Use of GPS*
- ✓ *Use of RFID –Radio frequency identification*

17. a) Explain the meaning of system security. (01mk)

- ✓ Refers to the process and methodologies involved with keeping information confidential, available and assuring its integrity.

b) Give two causes of system failure in a computer laboratory. (02marks)

- ✓ A failing motherboard can cause a system failure
- ✓ A bad processor can and usually causes a system failure
- ✓ A bad RAM chip
- ✓ Aging hardware
- ✓ Natural disaster (e.g fire, flood, storms)
- ✓ Virus attacks
- ✓ Electrical power variations

c) Mention two ways you can protect computer resources against physical threats from users

- ✓ Use of passwords.
- ✓ Use of burglar proofing.
- ✓ Maintaining user log.
- ✓ Sensitizing users.
- ✓ Lock hardware devices like laptops.
- ✓ Use of surveillance cameras(CCTVs)
- ✓ Use of strong doors and windows.
- ✓ Recruitment of security quarters.

18. (a). State two factors you would consider before buying a computer.

- ✓ Amount of RAM.
- ✓ Hard disk space.
- ✓ Speed of the processor (CPU)
- ✓ Nature and size of monitor provided.
- ✓ Operating system compatibility.
- ✓ Warranty and guarantee.
- ✓ Needs of the users.

(b). Give two main activities carried out during the data collecting stage.

- ✓ Data sorting/ filtering
- ✓ Data verification
- ✓ Data validation

(c). State one advantage of real-time data processing method.

- ✓ *There is no significant delay for response.*
- ✓ *Information is always up-to-date.*
- ✓ *Output from the computer may be used to adjust and improve the input.*

19 (a). What is an electronic application program?

- ✓ *Is a program designed to meet specific end user tasks like typing a document*

(b). Give two factors to consider before buying an application program.

- | | |
|---|---|
| ✓ <i>Compatibility/ ability of the program to work with other programs.</i> | ✓ <i>Whether training can be found outside the package.</i> |
| ✓ <i>Quality of the application program.</i> | ✓ <i>Free from software bugs and fixes.</i> |
| ✓ <i>Availability of document to enable step-by-step procedures of use.</i> | ✓ <i>Reliability.</i> |
| ✓ <i>Availability of technical support from the suppliers.</i> | ✓ <i>Efficiency.</i> |
| | ✓ <i>Durability</i> |
| | ✓ <i>Cost effectiveness</i> |
| | ✓ <i>User friendlily</i> |

(c). State two reasons for updating a soft ware program

- ✓ *In order to fix old software bugs*
- ✓ *In order to stay current in terms of software use*
- ✓ *In order to increase productivity of worker in the organization*
- ✓ *Adding functionality /performance*

20. (a). State three resources that can be shared across a computer network

- | | |
|--------------------------------|--|
| ✓ <i>Files</i> | ✓ <i>Software e.g. operating system and application programs</i> |
| ✓ <i>Folders</i> | |
| ✓ <i>Memory e.g. hard disk</i> | |
| ✓ <i>Printers</i> | |
| ✓ <i>Scanners</i> | |

(b). Give two advantages of using wireless network

- ✓ *Cheap set-up costs*
- ✓ *Can connect multiple devices without the need of extra hardware*
- ✓ *Less disruption to the building due to now wires being installed*

- ✓ *Increased mobility is by far the biggest attraction of wireless technology*
- ✓ *It promotes increased productivity ,allowing employees to collaborate where and when they need to*
- ✓ *It enables to people to get on to the internet when they are away from office, or away from home*
- ✓ *It provides secure network access to visiting colleagues from other sites within the organization*
- ✓ *Can be used to make telephone calls using a voice over internet protocol*

END OF SET EIGHT