GUIDE 2017

UGANDA ADVANCED CERTIFICATE OF EDUCATION
SUBSIDIARY ICT PAPER I

1. (a) Define the term **Computer trouble shooting** (01 Mark)

   ➢ Is a form of problem solving, often applied to repair failed computer or processes on a computer.
   ➢ Is a systematic approach to problem solving that is often used to find and correct issues with computer and software systems.
   ➢ is the process or identifying and fixing problems with hardware and software.

   (b) Give **three** factors one should consider before buying a computer (03 Marks)
   ➢ Processor speed (type of processor)
   ➢ Ram
   ➢ Storage-hard disk space
   ➢ Brand name
   ➢ Price of the computer
   ➢ Size of the computer

   (c) Mention **two** reasons that may force a computer user to change his operating system (02 Marks)

   ➢ Need to upgrade from one version of operating system to another.

   ➢ If the current operating system fails to start or boot

   ➢ If some systems files are corrupt and cannot work effectively

   ➢ If the current operating system fail to install peripherals

2. (a) Define the term **information processing cycle** (01 Mark)

➢ Refers to the sequence of events in processing information, which includes (1) input, (2) processing, (3) storage and (4) output.

(b) List **two** reasons to justify the need for **information processing** (02 Marks)

➢ For effective decision marking
➢ For policy reasons
➢ For reliability

(c) State **two** examples of information in a school setup (02 Marks)

➢ Age of students
➢ Students and their class and streams
➢ Students' chemistry marks
➢ Parents telephone numbers
➢ Teachers names and their subjects

3. (a) Briefly describe how you would create **a new folder** on a flash disc
(02 Marks)

➢ Click the start button/select computer/select the flash disc/right click and open/right click on the flash disc /select new/new folder is created the rename folder.

(b) Explain the following **Computer file attributes**:- (03 Marks)

(i) File extension

➢ It is a suffix on a file name usually separated by a dot. It is one of the file attributes.

(ii) Ready only file

➢ A file whose contents cannot be edited or formatted(changed)

(iii) Archived file

➢ It is a file with a reference name or initials and can be restored or recovered through undelete.
➢ An archive file is a file that is composed of one or more computer files along with metadata.(Archive files are used to collect multiple data files together into a single file for easier portability and storage, or simply to compress files to use less storage space.)

4. (a) List **two** risks of data in a computer (02 Marks)

➤ Unauthorized access
➤ Data theft
➤ Virus attack

(b) Write **one** solution to the risk mentioned in (a) above (01 Marks)

➤ Use of passwords and user names
➤ Use of burglar proof
➤ Use of antivirus software
➤ Installation of firewalls
➤ Use of security guards.

(c) How can you recover a **file** in your computer which has been deleted accidently?

(01 Mark)

➤ On the computer desktop open the recycle bin and click on the file and restore.

(d) Under what circumstance may you **format** a hard disk? (01 Mark)

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5. (a) Define the term **data backup** as used in the field of computing (01 Mark)

➤ Refers to an act of making copies of all/part of information stored on a disk and either restores partial or entire information

(b) Mention **three** reasons as to why a computer user are encouraged always to perform data backup (03 Marks)

✓ To avoid losing data in case of any problem associated with hardware failure.
✓ Malicious programs such as computer viruses can destroy original copy and backed copy can be used.
✓ In case of system failure backed copies can be used hence avoiding losses.

(c) Define the term **data** (01 Mark)

➤ Data refers to raw facts.

6.	(a)	What is **spooling**?							(01 Mark)

> ➤ Spooling refers to the process of putting instructions to be done into memory or on storage until the program or computer is ready to execute those instructions.

(b)	Distinguish between **customized software** and **canned software**	(02 Marks)
> ➤ Customized software is software that is specially developed for some specific organization or other user while as Canned software is to software which is developed and sold on open market to uses who want them.

(c)	State the meaning of the following
(i)	**Shareware**

> ➤ Shareware is software that is distributed free on a trial basis with the understanding that the user may need or want to pay for it later.

(ii)	**Freeware**

> ➤ Freeware is any copyrighted software, application or program that may be freely downloaded, installed, used and shared.

> ➤ Freeware is software that is free to use, it does not require any payment or licensing fee.

7.	(a)	What is a **web browser** and how does it fetch pages from the world wide web?
									(02 Marks)

> ➤ Is a software application for retrieving, presenting and traversing information resources on the World Wide Web.

> ➤ The browser send request to the server using the http protocol. the server responds to the request by sending a reply or indicating that the page is not available

(b)	How can you advise one who wants to get connect to the internet if he has a computer?							(03 Marks)

> ✓ Modem
> ✓ Internet service provider
> ✓ Phone line
> ✓ Internet browser.

8. (a) List **one** example of a wireless technology (01 Mark)

  ✓ Electromagnetic wireless communications eg radios
  ✓ Bluetooth
  ✓ Wimax
  ✓ Cellular network
  ✓ Infra red

   (b) Give **two** merits and **two** demerits of wireless technology (04 Marks)
Merits

  ✓ allows users to access network resources from nearly any convenient location within their primary networking environment
  ✓ users can access the internet even outside their normal work environment
  ✓ Users connected to a wireless network can maintain a nearly constant affiliation with their desired network as they move from place to place

Demerits

  ✓ Wireless networks may choose to utilize some of the various encryption technologies available.
  ✓ The typical range of a common 802.11g network with standard equipment is on the order of tens of meters.
  ✓ The speed on most wireless networks (typically 1-54 Mbps) is far slower than even the slowest common wired networks (100Mbps up to several Gbps

9. (a) State **two** professional functions of a teacher of ICT (02 Marks)

  ➢ Impart ICT/Computer skills to learners
  ➢ Implementation of ICT curriculum
  ➢ Assessment of learners in ICT skills.

   (b) Give **two** ethical guidelines to students using internet in a school (02 Marks)

  ➢ Common sense is key –Just because you can say it does not mean you should
  ➢ Cultivate an image you want to portray day by day
  ➢ Keep private matters private-photos, videos
  ➢ Regular and thoughtful posting
  ➢ Reply and acknowledge receipt
  ➢ Mind spellings and slangs
  ➢ "Check" friends/followers/connections

- ➤ Balance time
- ➤ Be mindful of others
- ➤ Be mindful of the length of the messages.

(c)   State **one** challenge to ICT related careers in Uganda today   (01 Mark)

- ➤ Limited ICT infrastructure
- ➤ High costs of procurement and maintenance of ICT
- ➤ Very limited ICT legal framework
- ➤ High illiteracy rate and ignorance
- ➤ Political will
- ➤ Costly for initial outlay and sustainability
- ➤

10.   (a)   Differentiate between "**Cropping**" from "**Crop marks**" features of desktop publishing software   (01 Mark)

- ➤ Cropping involves trimming an object or image to some required size or shape while crop marks which facilitated trimming of an on object to the required size eg Business cards

(b)   List **two** publications that can be made using desktop publishing software.
    (02 Marks)

- ➤ Business cards
- ➤ Brochures
- ➤ Certificates
- ➤ Seasonal greeting cards
- ➤ Calendars
- ➤ Fliers
- ➤ News letters
- ➤ Menus
- ➤ Logos
- ➤ Letter heads

(c)   List **two** features of desktop publishing software.   (02 Marks)

- ➤ Similar feactures as word processing but rich/enhanced like textboxes,text formatting features,drawings and graphic tools
- ➤ Professional looking templates
- ➤ Easy to use wizards
- ➤ Frames/place holders
- ➤ Crop marks etc

11.   (a)   Distinguish between **green computing** and **cloud computing**   (01 Mark)

✓ *Green computing is the environmentally responsible and eco-friendly use of computers and their resources or defined as the study of designing, engineering, manufacturing, using and disposing ofcomputing devices in a way that reduces their environmental impact while as Cloud computing refers the practice of using a network of remote servers hosted on the Internet to store, manage, and process data, rather than a local server or a personal computer.*

    (b)   List any **two** elements of **green computing**   (02 Marks)

- ✓ *Using energy-efficient hardware like notebook computers, displays, servers, printers and desktop computers.*
- ✓ *Better use of resources, such as reduced paper consumption and lower energy utilization.*
- ✓ *Greater awareness so that technology components don't end up in the waste stream.*
- ✓ *Stronger environmental controls for technology production, leading to fewer toxic chemicals in the finished products.*

    (c)   State **two** positive impacts of **ICTs** on the economy of a country like Uganda   (02 Marks)

- ✓ *They have provided markets for ICT product on the Ugandan economy*
- ✓ *There is increased employment opportunities through ICT careers such Systems administrators*
- ✓ *They have offered investment opportunities such as cafes,mobile telephone companies schools etc*
- ✓ *The contribute to sustainable quality of lives,goods,services and works.*
- ✓ *They are platforms to effecting payments like Electronic money transfer ,mobile money etc*

12.   (a)   Mention **two** application areas of **electronic spreadsheets** in your school   (02 Marks)

- ✓ *In preparing of end of term reports ,the grade sheets can be prepared using spreadsheets*
- ✓ *Making of roll call lists or class list*
- ✓ *Preparing and managing of payroll for teachers*
- ✓ *Used by students for study purposes*

    (b)   Given the function **=IF (A2>=80, "A", IF(A2>=50, "B", "F"))** answer the question that follow

    (i)   State the category of function   (01 Mark)

- ✓ *Logical function*

(ii)   State **one** reason for applying inverted quotation marks on A,B and F

(01 Mark)

✓ *Because A,B and F are labels they cannot be manipulated mathmatically.The principle is whenever a label appears in a logical function, it must be put in inverted quotation marks.*

(c)   State **one** characteristic of data values in a spreadsheet cell and functions

✓ *They are right aligned in the cell by default*

✓ *They do not need to be in inverted quotes in logic functions*

✓ *Generated from counting numbers but not necessarily reference numbers*

✓ *Bases for arithmetic operations.*

13. (a)   A soft copy it to ***Monitor*** while as a hard copy is to ***Printer***

(02 Marks)

(b)   Give **two** difference of using a **CRT** as compared to an **LCD** monitor

(02 Marks)

✓ *CRT monitors are bigger in size than LCD screens*

✓ *CRT monitors consumer more power that LCD screens*

✓ *CRT monitors occupy a large space that LCD screens*

✓ *CRT monitors output image is of a poor quality compared to LCD*

(c)   The ICT personnel of Nsambya hospital is torn between using an external hard disk and a floppy disk to store data. Which of the **two** devices is more suitable for the purpose and why?   (01 Mark)

✓ *External hard disk drive:-Because it stores a lot more data and can't not easily be damaged in the process.*

14. (a)   Explain the **steps** of starting **Microsoft office word**.   (03 Marks)

Click the start button or press the windows icon

✓ *Go to all programs*

✓ *Go to Microsoft office*

✓ *Click Microsoft office word to open.*

(b)   When typing in Microsoft office word why does a **wavy red line** appear on some Words.   (01 Mark)

✓ *The underlined word isn't spelt correctly(spelling mistake)*

(c)   Explain how the **wavy red line** can be removed from your document

(01 Mark)

✓ *Right click on the word or text underlined and selects one of the computer options given or simple type the correct word.*

15.   Intruders in a computer laboratory are some of the threats to the **computer system and data**. Indentify any five ways of controlling them.   (05 Marks)

➢ *Use of passwords to computer resources*

➢ *Burglar proofing*

➢ *Using of security personnel to guide the laboratory facility*

➢ *Using of update antivirus software*

➢ *Restricting of entry.*

➢ *Always activating a firewall on the computers*

16.   (a)   What are **pointing input devices**?   (01 Mark)

✓ *is a hardware input device that allows the user to move the mouse cursor in a computer program or GUI operating system.*

(b)   Explain **two** advantages of using a mouse   (02 Marks)

✓ *A mouse works very well for navigating a graphical user interface, such as Windows or Mac.*

✓ *With additional buttons and a scroll wheel, increasingly complex functions can be done from a mouse. These include opening, closing and minimizing software; grouping, moving and deleting files*

✓ *A mouse is better for fine movements and adjustments than most of the alternatives.*

✓ *Easy for manipulation of data on the computers screen*

✓ *Easy to learn and how to use it.*

(c)   Give **two** causes of computer hardware malfunctioning   (02 Marks)

✓ *Heat: The primary cause of hard drive failures is hardware overheating. Inadequate ventilation and cooling in and around your computer hardware can cause severe damage to the equipment.*

✓ *Physical damage to your computer: Any type of physical force, such as bumping, jarring, or dropping your computer may lead to physical damage to the hard drive. If your computer is in use at the time of the impact, the read/write heads may touch or gouge the disks, causing damage to the platter's magnetic surfaces where the data is embedded.*

✓ *Power Voltage Surges: Power surges can result in data loss when the read/write heads fail to function properly, and in the worst case, a complete computer crash.*

✓ *Water Damage: Moisture caused by flooding or even by spilling a liquid onto your computer is almost assuredly bad news.*

✓ *Corrupted files: Improperly closing a program, turning of your computer before closing files, and installing new software can cause files to become corrupted*

✓ *Human error: The functions of the hard drive can be impaired by human tampering with the system files.*

17. (a) State **three** forms of interfaces an operating system can provide to a computer user

(02 Marks)

➢ *Command line interface*

➢ *Menu driven interface*

➢ *Graphical user interface*

➢ *Remote terminal interface*

➢ *Sound recognition interface*

➢ *Touch recognition interface.*

(b) Mention **three** features that make up a font (03 Marks)

➢ *Font Color*

➢ *Font Size*

➢ *Type face or font face*

18. (a) Explain how each of the following **system devices** contribute to the general operation of the computer system (03 Marks)

(i) Ram chip

✓ *Provides a temporary application data storage area which is in use.*

(ii) Power Supply unit

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

(iii) Hard disk drive

✓ *A hard disk drive is a core of the computer's permanent storage where all software where programs and data are stored*

(b) Mention **two** tasks a computer user should perform to increase on its speed

(02 Marks)

➢ *Increasing the size of Ram chip*

➢ *Using update antivirus software to scan the computer*

➢ *Reducing on the number of documents on the computer and uninstalling some programs.*

> ➤ *Using the disk defragmentation utility.*

19. (a) Define the term **Telecommuting**. (01 Mark)

✓ *is working from a remote location outside of a traditional office. The remote location can be from home, a coffee shop, or hotel room*
✓

(b) List **two** advantages of **telecommuting** (02 Marks)

✓ *No Commuting. Depending on your current commute, this can save you anywhere from minutes to hours every day.*

✓ *Increased Independence. Working from home puts the onus on you to complete your work without constant reminders, which some people absolutely love.*

✓ *Increased Savings. Most people who work from home have very little need for professional clothing, which not having to buy can save lots of money every year.*

✓ *More Flexibility. Again, this depends on the type of job you'll have at home, but many work-from-home jobs allow for a flexible schedule.*

✓ *Fewer sick days. Working in a traditional office exposes you to many people's germs, but if you work from home, you have less exposure to people, and therefore, to their germs.*

(c) As a computer student mention any **two** uses of **Global positioning system** (GPS) (02 Marks)
    ✓ *Location - determining a position*
    ✓ *Navigation - getting from one location to another*
    ✓ *Tracking - monitoring object or personal movement*
    ✓ *Mapping - creating maps of the world*
    ✓ *Timing - bringing precise timing to the world*

20. (a) Define **the information and communication technology**? (01 Mark)
    ✓ *ICT refers to technologies that provide access to information through telecommunications*
    ✓ *Refers to dissemination of information from one device to another using technological devices such as computers*

(b) What is a **computer system**? (01 Mark)

✓ *A system of interconnected computers that share a central storage system and various peripheral devices such as a printers, scanners, or routers.*
✓ *Computer system is defined as the combination of hardware, software, user and data.*

(c) List any **three** characteristics of computers today (03 Mark)

> ➤ *Speed: - As you know computer can work very fast. It takes only few seconds for calculations that we take hours to complete.*

- ➢ *Accuracy: - The degree of accuracy of computer is very high and every calculation is performed with the same accuracy.*
- ➢ *Diligence: - A computer is free from tiredness, lack of concentration, fatigue, etc. It can work for hours without creating any error.*
- ➢ *Versatility: - It means the capacity to perform completely different type of work.*
- ➢ *Power of Remembering:* - Computer has the power of storing any amount of information or data.
- ➢ *No IQ: - Computer is a dumb machine and it cannot do any work without instruction from the user. It performs the instructions at tremendous speed and with accuracy.*
- ➢ *No Feeling: - It does not have feelings or emotion, taste, knowledge and experience. Thus it does not get tired even after long hours of work. It does not distinguish between users*
- ➢ *Storage: - The Computer has an in-built memory where it can store a large amount of data.*

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