UACE S850 Subsidiary Information and communication technology (ICT) Paper 1 2023

2 ½ hour

Answer all questions

1. (a) Distinguish between Random Access Memory (RAM) and Secondary storage (04marks)

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....
....

   (b) Give an example of secondary storage cycle (01marks)

....

2. Explain each of the following Database features

   (a) Field Name(02 marks)

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....
....

   (b)Field properties(01 marks)

....
....
....

   (c) Date type (02marks)

....
....

……

3. (a) Distinguish between computer servicing and computer repair (02 marks)

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……
……

(b) Write one reason for having the following items in the computer laboratory
(i) Wooden carpet (01mark)

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……

(ii) Blower (01marks)

……
……

(iii) CCTV cameras (01 mark)

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……

4. (a) Don is a new computer user. As an ICT student advise Don on which tool to use
(i) to trace files he cannot locate (01 mark)

……

(ii) to trace a word from an open document (01 mark)

……

(b) A student is typing using Microsoft word. Write down three steps the student will use
to shut down the computer (03 marks)
(i) ……
(ii) ……
(iii) ……

5. (a) State five activities that can be performed on a computer using a mouse piece. (05marks)

(i) ……
(ii) ……
(iii) ……
(iv) ……
(v) ……

6. Identify   five ICT related employments opportunities in Uganda to day (01 marks)

(i) ……
(ii) ……

(iii) ………

(iv) ………

(v) ………

7 (a) What is multiprocessing? (01marks)

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(b) Give two advantages of each of the following operating systems (02marks)

(i) windows (02 marks)

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(ii) Linux (02 marks)

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8. (a) Name two examples of application software

(i) ………

(ii) ………

(b) State three problems associated with usage of packaged application. (03 marks)

(i) ………

………

(ii) ………

………

(iii) ………

………

9. (a) What is the World Wide Web? (02marks)

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(b) Show three ways in which the internet can facilitate trade and business (03 marks)

(i) ………

(ii) ………

(iii) ………

10. (a) Showone way in which the internet can be a danger to:. (02marks)

    (a) Moarity (01 mark)

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    (b) Labour (01 mark)

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    (c) System security (01 mark)

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    (d) Human security (01mark)

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    (e) Information

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11. Explain the following attributes of computers which make them dependable and reliable tools (02marks)

    (i) Diligence (02 marks)

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……

    (ii) Versatility (02 marks)

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……

    (iii) Accuracy

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12. (a) Describe the term Computer literacy (02 marks)

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....

(b) Outline any three ways in which ICT can improve the quality of education (03 marks)

(i) ....
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(ii) ....
....
(iii) ....
....

13. (a) Differentiate between copy a file and move a file. (02 marks)

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(b) Study the file path below and answer questions that follow:
F:\accounts\bursar\fees.xls
(i)   Identify the file name (01 mark)
....
(ii)   On what drive is the file located (01 mark)
....
(iii)   In which sub-folder is file located(01mark)
....

14. (a) List three input devices (03 marks)

(i) ………

(ii) ………

(iii) ………

(b) Give a function of any two input devices listed in (a) above (02 marks)

(i) ………

………

(ii) ………

………

15. Identify the following from email address robert@yahoo.com

(a) (i) Domain name ……………………………………………………………… (01 mark)

(ii) User name ……………………………………………………………. (01 mark)

(iii) Top level domain name ……………………………………………… (01 mark)

(b) (i) Which type of organization doe a the domain name of the email user above, subscribe to? (01 mark)

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(ii) Give any other examples other than you have stated in (b)(i)above (01mark)

16. (a) Define the term **Computer Network** (02 marks)

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………

………

(b) Give three disadvantages of networking computer. (03marks)

(i) ………

(ii) ………

(iii) ………

17. (a) Differentiate between a server ad a client computer. (02 marks)

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(b) What is the function of each of the following network devices?

(i) Bridge (01 mark)

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(ii) Switch (01 mark)

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(iii) Router (01 marks)

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18. The table below shows a worksheet which Nabirye was working on

Use it to answer the questions that follow.

1	A	B	C	D	E
	ID number	Name	Item 1	Item 2	Item 3
2	100000	Akello	990	34	29.1
3	100002	Nambi	660	-	#DIV/0!
4	#########		880		
5			#NAME?		
6					

(a) (i) suggest a reason why the entry in cell A4 appear as shown (01 mark)
....
....
....

(ii) How do you rectify the error in cell a4? (01marks)
....
....

....

(b) What does the error in cell E4 mean? (02marks)

....

....

....

(c) How do you correct the error in cell C5? (01 marks)

....

....

....

19. (a) Tick the **three** utility programs from the list below (03marks)

	Tick
Web browser	
Data compressor	
Disk defragmenter	
Operating system	
Antivirus software	

(b) State the functions of any two utility programs you marked in (a) above. (02marks0

(i) ....

....

(ii) ....

....

20. (a) Explain the following terms giving examples in each case. (02 marks)

(i) Simplex (02 marks)

....

....

....

Example ....

(ii) Half duplex (02 marks)

....

....

....

Example ....

(b) Identify one non-physical data transmission media (01 marks)

	Tick here
Optic fiber	
Bluetooth	
Twisted pair	

Suggested answers

1. (a) Distinguish between Random Access Memory (RAM) and Secondary storage (04marks)

   RAM (computer memory) is used to temporally store data that is required for processing within the CPU.
   Secondary storage/ auxiliary storage, is any non-volatile storage medium that holds data until it is deleted or overwritten.

   (b) Give an example of secondary storage cycle (01marks)

      hard drives, SSDs, CDs, DVDs, memory cards, flash discs

2. Explain each of the following Database features

   (a) Field Name (02 marks)

      It is a name given to a column in the table
   (b)Field properties (01 mark)
      The field property in database is the characteristics and behavior of data added to that field.
   (c) Date type (02marks)
      The DATE data type is used to store dates, without any time information. This data type is useful when you need to store information about in dates, such as birthdays, appointments, or deadlines, but don't need to keep track of specific times of day.

3. (a) Distinguish between computer servicing and computer repair (02 marks)

   Computer servicing is the regular maintenance and upkeep required to keep your computer running smoothly and efficiently.
   Computer repair is the process of fixing a computer that has broken down or malfunctioned.
   (b) Write one reason for having the following items in the computer laboratory
      (i) Wooden carpet (01mark)
      It is noiseless and durable floor
      (ii) Blower (01marks)

      Air Blower **removes dust and dirt from computers**.

       (iii) CCTV cameras (01 mark)
      They are for surveillance and security purposes.

   4. (a) Don is a new computer user. As an ICT student advise Don on which tool to use
      (i) to trace files he cannot locate (01 mark)

Click 'Computer' or 'This PC' then click in the Search field and enter part or all the file name you want to find.

(ii) to trace a word from an open document (01 mark)

Control+ F or click Home and then Find

(b) A student is typing using Microsoft word. Write down three steps the student will use to shut down the computer (03 marks)

(i) Save the document and close word file

(ii) In the Start menu, click on the power icon. A submenu will appear. - Shut Down:

(iii) Click on the "Shut Down" or "Power Off" option in the submenu.

5. (a) State five activities that can be performed on a computer using a mouse piece. (05marks)

(i) Move the cursor pointer on screen

(ii) select/ highlights image, text, file or icon

(iii) right click displays menu

(iv) double clicking opens or executes a program

(v) can be used for scrolling

(vi) move images, text on screen

(vii) Positioning cursor

(viii) displays hover information

6. Identify five ICT related employments opportunities in Uganda to day (01 marks)

- Teaching
- Computer repair and maintenance
- Computer and parts sales
- Computer Programmers.
- Web Designers.
- Database Analysts.
- Project Managers.
- Social Media Managers.
- Social Community Managers.
- Security/Networking Analysts.
- Technology Support.

7 (a) What is multiprocessing? (01marks)

Multiprocessing is the use of more than one central processing units (CPUs) within a single computer system

Or

Multiprocessing is the ability support more than one processor or allocate tasks between them.

(b) Give two advantages of each of the following operating systems (02marks)

(i) windows (02 marks)

- User-friendly graphical user interface (GUI).
- Wide range of compatible software and applications.
- Extensive hardware support for various devices.
- Regular updates and security patches for improved performance.
- Familiarity, as it's a widely used operating system.
- Standard operating system for high-end gaming
- Available at different configurations and price points

(ii) Linux (02 marks)

- **Open-source nature**: Linux is freely available and customizable.
- **Security**: Linux is more secure than other operating systems.
- **Easy and frequent software updates**.
- **Variety of distributions**: Choose from various Linux distributions based on your requirements.
- **Cost-effectiveness**: Linux is freely available on the internet.
- **Stable**

8. (a) Name two examples of application software

General Applications	Business Applications	Application Based on Shareability
○ Word Processing Software	○ Customer Relationship Management Application Software	○ Freeware
○ Graphics Software		○ Shareware
○ Spreadsheet Software	○ Enterprise Resource Planning Application Software	○ Open source
○ Presentation Software		○ Closed source
○ Web Browsers	○ Project Management Application Software	
○ Multimedia Software	○ Business Process Management Application Software	
○ Education and Reference Software	○ Database	
○ Simulation Software	○ Resource Management Application Software	
○ Content Access Software		
○ Information Worker Software	○ Productivity Software	
	○ Time Management Application Software	
	○ Educational Software	

(b) State three problems associated with usage of packaged application. (03 marks)

- Packaged software is a standard program solution and may not be appropriate for all organizations.
- It is costly to maintain when future upgrades are required, or new versions are needed.
- It is time-consuming to install and maintain.
- Limited customization

9. (a) What is the World Wide Web? (02marks)

It is an information system that enables content sharing over the

(b) Show three ways in which the internet can facilitate trade and business (03 marks)
- Online Businesses (E-commerce)
- E-marketing
- Cashless Transactions
- Education and training

10. (a) Show one way in which the internet can be a danger to: (02marks)

(a) Molarity (01 mark)
- Use of vulgar language on social media
- Cyber bullying
- Cyber Predators such as sexual and other predators often stalk children on the internet, taking advantage of their innocence, lack of adult supervision and abusing their trust.
- Watching pornography, bestiality

(b) Labour (01 mark)
- Fraud through fake Job advertisement
- Internet addictions reducing effective labor
- Increased unemployment
- threats to decent work and fair competition from digital labour platforms
- reduced job satisfaction due to unfair comparisons among jobs and countries

(c) System security (01 mark)
- Hacking, where unauthorized users gain access to computer systems, email accounts, or websites.
- Viruses or malicious software (known as malware) which can damage data or make systems vulnerable to other threats.
- Identity theft, where criminals can steal personal and financial information.

(d) Human security (01mark)
- Abuses on social media causing psychological harm
- Addition to malicious information and behavior.

- Cyber rimes

(e) Information
- Hacking, where unauthorized users gain access to computer systems, email accounts, or websites.
- Spread of false information
- Identity theft.
- Data breaches.
- Malware and viruses.
- Phishing and scam emails.
- Fake websites.

11. Explain the following attributes of computers which make them dependable and reliable tools (02marks)

(i) Diligence (02 marks)

Computers perform repetitive task without getting tired and work long hours without making mistakes

(ii) Versatility (02 marks)
Computers perform many tasks with the same accuracy and efficiency

(iii) Accuracy

Computers perform tasks with high degrees of exactness

12. (a) Describe the term Computer literacy (02 marks)

Computer literacy is the ability to use computers and information technology efficiently

(b) Outline any three ways in which ICT can improve the quality of education (03 marks)
- provides interactive and engaging content.
- facilitates personalized learning.
- enables access to a wealth of resources.
- fosters collaboration and communication among students and teachers.
- Improves reading and listening skills
- Stores information for future reference

13. (a) Differentiate between copy a file and move a file. (02 marks)

Copying – make a duplicate of the selected file or folder and place it in another location.

Moving – move the original files or folder from one place to another (change the destination).

(b) Study the file path below and answer questions that follow:

F:\accounts\bursar\fees.xls

(i)   Identify the file name (01 mark)

           Fees.xls.

(ii)   On what drive is the file located (01 mark)

           F

(iii)   In which sub-folder is file located(01mark)

           Bursar

14. (a) List three input devices (03 marks)

- scanner
- mouse
- Camera
- keyboard

(b) Give a function of any two input devices listed in (a) above (02 marks)

- Keyboard enter data /text message into the computer
- Scanner feeds hardcopy information into computer softcopy
- camera captures picture and feed them into the computer
- Mouse allows you **to control the movement of the cursor on a computer screen**

15.   Identify the following from email address robert@yahoo.com

(a) (i) Domain name yahoo.com (01 mark)

(ii) User name robert@yahoo.com (01 mark)

(iii) Top level domain name **.com** (01 mark)

(b) (i) Which type of organization doe a the domain name of the email user above, subscribe to? (01 mark)

         yahoo.

   (ii) Give any other examples other than you have stated in (b)(i)above (01mark)

         Google

         hotmail

16. (a) Define the term **Computer Network** (02 marks)

A **computer network** is a connection of at least two computers either by cable or wireless connection

(b) Give three disadvantages of networking computer. (03marks)
- Has high initial cost to setup
- Encourages spread Virus and Malware to network computers
- Disruptions can occur frequently.
- Computer Networking can direct us to various types of distractions.
- It requires a specific type of setup.
- May lead to loss of information easily

17. (a) Differentiate between a server ad a client computer. (02 marks)

A server is a computer that provides and authorizes resources or services for the client computer.

A client is a computer that connects to a server in order to access resources or services

(b) What is the function of each of the following network devices?

(i) Bridge (01 mark)

A **bridge** is a network device that connects multiple sub-networks to create a single network

(ii) Switch (01 mark)

A switch enables connected devices to share information and talk to each other.

(iii) Router (01 marks)

A **router** is a device that connects two or more packet-switched networks or subnetworks. It serves two primary functions: managing traffic between these networks by forwarding data packets to their intended IP addresses, and allowing multiple devices to use the same Internet connection.

18. The table below shows a worksheet which Nabirye was working on

Use it to answer the questions that follow.

1	A	B	C	D	E
	ID number	Name	Item 1	Item 2	Item 3
2	100000	Akello	990	34	29.1
3	100002	Nambi	660	-	#DIV/0!
4	#########		880		
5			#NAME?		
6					

(a) (i) Suggest a reason why the entry in cell A4 appear as shown (01 mark)

Microsoft Excel might show ##### in cells when a column isn't wide enough to show all of the cell contents.

(ii) How do you rectify the error in cell a4? (01marks)

It rectified by

- Increase width of the cell
- Reduce the font of the text
- Decrease the number of decimal point

(b) What does the error in cell E4 mean? (02marks)

The **#DIV/0!** error occurs when you attempt to divide a number by zero.

(c) How do you correct the error in cell C5? (01 marks)

#NAME? is a common Excel error notation that appears when a formula or function cannot find the referenced data it needs to complete the calculation.

Enter correct data in the necessary cell

19. (a) Tick the **three** utility programs from the list below (03marks)

	Tick
Web browser	
Data compressor	x
Disk defragmenter	x
Operating system	
Antivirus software	x

(b) State the functions of any two utility programs you marked in (a) above. (02marks0

- Data compressor compresses a file
- Disk Defragmenter in Windows rearranges fragmented data so your disks and drives can work more efficiently.
- Antivirus software protects computers against viruses and malware

20. (a) Explain the following terms giving examples in each case. (02 marks)

(i) Simplex (02 marks)

Simplex mode is a transmission mode in which information is sent in one direction only, also known as unidirectional.

Example: keyboard, Television, Mouse, Radio Broadcasts, and Monitor

(ii) Half duplex (02 marks)

In half-duplex mode, each station can both transmit and receive, but not at the same time.

Example: walkie-talkie - a two-way radio that has a push-to-talk button

(b) Identify one non-physical data transmission media (01 marks)

	Tick here
Optic fiber	
Bluetooth	x
Twisted pair	

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Thanks

Dr. Bbosa Science