Candidate's Name ...... *TR's GUIDE* ....

Signature ....

Personal Number		

840/1
COMPUTER STUDIES
Paper 1
July. August 2023
2½ hours

ICT TEACHERS' ASSOCIATION OF UGANDA

Uganda Certificate of Education
COMPUTER STUDIES

Paper 1

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

Write your name, signature and personal number in the spaces above

This paper consists of **three** *Sections* **A, B** *and* **C.**

Section **A** *contains* **20 compulsory** *objective type questions. The correct alternative* **A, B, C** *or* **D** *must be written in the box provided on the right hand side of each question*

Section **B** *contains* **six compulsory** *structured questions. Answers to Section* **B** *must be written in the spaces provided in the question paper.*

Section **C** *contains three equally weighted practically-theory questions. Answer only* **one** *question. Answers to Section* **C** *must be written on the answer sheet(s) provided*
Any additional question(s) answered will not be marked.

For Examiners' Use only

MCQ	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	TOTAL

1. Which one of the following is **not** a specification considered when buying a new laptop computer?
   A. Amount of RAM available
   B. Cost of the computer
   C. Hard disk capacity
   D. Battery life

   B

2. The feature of word processing that allows a user to type continually without pressing the Enter Key at the end of each line is called?
   A. Drop cap
   B. Find and replace
   C. Word Wrap
   D. Mail merge

   C

3. A battery powered device that provides enough power to the computer to prevent unsaved work from being lost when there is a power failure is called?
   A. Surge protector
   B. Power stabilizer
   C. Solar panel
   D. Uninterruptible Power Supply

   D

4. The loss/weakening of signal strength in networking cables or connections can be referred to as
   A. Attenuation
   B. Demodulation
   C. Modulation
   D. Packet switching

   A

5. Which **one** of the following is **not** an advantage of using presentation software
   A. Multimedia can be incorporated into the presentation slides
   B. The slides can be used to perform calculations
   C. The timing of slides can be set to run automatically
   D. Provides a variety of presentation formats and layouts.

   B

6. Charles Babbage the father of computers is popularly best known for inventing the ....?
   A. Analytical and Difference Engine
   B. Slide rule
   C. Jacquard's Loom
   D. Abacus

   A

7. A diagnostic process that a computer runs to determine if the hardware is working properly when the computer is switched on is
   A. Trouble shooting
   B. Power on self-test
   C. Loading of the operating system
   D. Debugging

   A

8. Which **one** of the following is **true** about impact printers?
   (i) They are very noisy
   (ii) Produce high quality graphics and very expensive
   (iii) They use laser, spray of special ink or tonner powder
   (iv) Physical contact between the paper and ink ribbon
   (v) They tend to be slow
   (vi) They do not print on transparencies

   A. (i), (ii) and (iii) only
   B. (ii), (iii) and (vi) only
   C. (i), (iv, (v) and (vi) only
   D. All of them are true about impact printers.

   C

9. The following are data types of a database table **except**
   A. Number
   B. Date/Time
   C. Lookup Wizard
   D. OLE Object

   C

10. The keyboard button that enables a computer user to take a screenshot of the current screen.
    A. Backspace button
    B. Escape button
    C. Windows button
    D. PrintScreen button

    D

11. The type of transmission mode that allows data to flow in both directions but only one way at a time is called?
    A. Half duplex mode
    B. Multiplex mode
    C. Full duplex mode
    D. Simplex mode

    C

12. The following are categories of utility software except?
   A. Anti-virus utility
   B. Web browsers
   C. Disk scanners
   D. Disk defragmenters

   B

13. The act of attempting to require sensitive information like user names, passwords and credit card details by disguising as a trusted source is called
   A. Hacking
   B. Cracking
   C. Spamming
   D. Phishing

   A

14. The type of volatile memory that provides high speed data access to a processor and stores frequently used computer programs, applications and data.
   A. Cache Memory
   B. Read Only Memory
   C. Random Access Memory
   D. Flash Memory

   C

15. A professional who is responsible for the upkeep, configuration and reliable operations of computers like servers in an organization.
   A. Database Administrator
   B. Systems Administrator
   C. Network administrator
   D. Web Designer

   C

16. A stationery pointing device with a ball mechanism on its top that the user rolls to direct and control the movement of the pointer on the screen.
   A. Trackball
   B. Joystick
   C. Digital pen
   D. Mouse

   D

17. The standard protocol for transferring file between computers and webservers over a network such as the internet
   A. Simple Mail Transfer Protocol
   B. Domain Name Transfer Protocol
   C. File Transfer Protocol
   D. Internet Protocol

   C

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18. A collection of several applications that are bundled together and sold or distributed as a single package.

A. Systems software.
B. Special software.
C. General purpose software.
D. Software suite.

D

19. The file extension for all web pages on the website should be

A. .xls
B. .doc
C. .pub
D. .html

D

20. A grid of columns (indicated by letters) and rows (indicated by numbers) in a spread sheet software is called

A. Functions
B. Labels
C. Worksheet
D. Workbook

C

SECTION B (60 MARKS)
Answer all questions in this section
Answers must be written in the spaces provided

21. (a) Explain the following categories of computers by function.

(i) **Stand-alone computers.** (02 marks)

Is a computer that is used on its own without requiring internet connectivity

(ii) **Networked computers.** (02 mark

Refers to two a more computers that are networked together to share resources suches data, programs.

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(iii) **Real time systems** *(02 marks)*

...Is a system that for real time computing application that process data and events that have critically defined time constraints.

(b) Identify **two** ways how viruses are spread on computers. *(02 marks)*

(i) ...Through email messages
- Pop-ups

(ii) -Visiting malicious websites
- forgetting to perform anti-virus scans

(c) Suggest **two** possible solutions to prevent the spread of viruses as identified in (b) above.

(02 marks)

(i) ...Installing anti-virus software

(ii) - Performing anti-virus scans

22. (a) What is solid-state storage media? *(02 marks)*

...This is a type of computer storage media that is made from silicon chips and stores data electronically instead of magnetically.

(b) Name **two** examples of solid state media. *(02 marks)*

(i) ...Smart card

(ii) USB flash drive
Memory card

(c) Give **two** reasons why a computer user would prefer to use solid-state storage media over magnetic storage media. (02 marks)

(i) faster read write speeds as can access large files, quick

- Durability

(ii) Power Consumption

- Quick boot times and better performance

(d) Distinguish between **disk partioning** and **disk formatting**. (02 marks)

disk partitioning refers to a virtual division of a drive into two or more volumes and defining how much space can be allocated to a particular vol of space within the drive while disk formatting refers to preparation of a drive for initial use hence setting its file system

(e) Give **two** benefits of partitioning a disk in a computer. (02 marks)

(i) - Reduces threats of data loss

- More convenient for data backup and restore

(ii) - Runs different Os on One Pc

- Separating valuable files to minimize corruption risk

23. (a) What is a **function** in Microsoft Excel? (01 mark)

A function is ~~an inbuilt formula~~ a pre defined formula that is inbuilt in the computer and performs calculations by using specific values/ arguments

(b) Read the following information carefully and answer the questions that follow.

C2			f_x	=su(A2:B2)	
	A	B	C	D	
1					
2	200	156	#NAME?	#NAME?	
3	15345	0	#DIV/0!	#DIV/0!	
4	234	#NAME?	#NAME?	#NAME?	
5	1454	5220	#NULL!	#NULL!	
6	185545	1255	#N/A	#N/A	
7	sdss	125	#VALUE!	#VALUE!	
8	203	52	#NUM!	#NUM!	
9					

Explain the meaning following errors as commonly encountered when using Microsoft excel.

(03 marks)

(i) #NAME? Error

This error occurs when the text in a formula is not recognized by excel. Caused by misspelling the function names

(ii) # DIV/0! Error

This error occurs when a number is divided either by Zero(0) or an empty cell

(iii) # VALUE! Error

This error occurs when the formula includes cells that contain different data types

(iv) How would you rectify the error in cell D3? (01 mark)

By changing the divider to a value that is not equal to 0

(c) Distinguish between **Text** and **Memo** as used in databases. *(02 marks)*

......Text is a field for relatively short entries because it
......cannot hold more than 255 characters
while ......Amemo is a field which can holds long entries
of about 65,535 characters

(d) The table below shows a database table extracted from Platinum Investment Limited. Read it and answer the question that follows.

Emp.Number	Surname	Sex	District	Date Of Birth	Paid
KS/001	Duwonge	Male	Wakiso	01-Mar-1962	125,000
KS/002	Dayaga	Female	Kampala	05-Mar-1963	170,000
KS/003	Muwanga	Female	Jinja	01-May-1977	132,000
KS/004	Kibuuka	Male	Wakiso	05-Jul-1976	125,000
KS/005	Nakintu	Female	Kampala	01-Nov-1976	120,000

(i) How many records are shown in the table above? *(01 mark)*

......6 records.

(ii) Which field would you choose to act as your primary key?
(01 mark)

......Emp. Number

(iii) Give **one** reason to support your answer in d (ii) above. *(01 mark)*

......Because each field has Emp Number
......has a Unique row for each entry:

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24. (a) Distinguish between a **hub** and a **switch**. *(02 marks)*

A hub is a central connection point for all computers on a network while

A switch is a network device that selects a path or circuit for sending a unit of data to its next destination within LAN.

(b) State **three** advantages of using wireless networks. *(03 marks)*

(i) They cover long distances / large geographical area Provide high speed communicative transmission

(ii) No need to install cables

(iii) Lots of data can be sent simultaneously

(c) Name **one** example of physical transmission media. *(01 mark)*

~~Fibre optic cable~~ Hub, repeater, Bridge, gateway.

(d) Explain the meaning of the following views as used with web authoring software.

(i) **Normal view.** *(01 mark)*

This is the default view which is a blank screen on which you type, paste or insert content.

(ii) **Code View.** *(01 mark)*

This allows the computer user to view and work directly with HTML code created for you by web authorizing software

(iii) **Split View** *(01 mark)*

This is where both the Normal views and Code view are displayed simultaneously in separate windows

(e) Identify **one** example of a web authoring software. *(01mark)*

Note Pad, Wordpress, Microsoft web Expressions & Art Studio 3 Web Plus X4

25. (a) State **two** documents that be created by a word processor *(02 marks)*

(i) Letters, Memos, Brochures

(ii) Reports, Certificates, Calendars

(b) Give the **function** of the following features of a word processor.

(i) **Spelling checker.** *(01 mark)*

This allows a user to check the spelling of a whole document at one time to

(ii) **Grammar checker.** *(01 mark)*

This reports grammatical errors and suggests ways to correct them

(iii) **Thesaurus.** *(01 mark)*

This suggests alternative words with the same meaning.

(c) What is meant by **hand outs** as used in Microsoft PowerPoint? *(02 marks)*

It is a printed material for one's audience that Consists of two - six slide images printed on a single page

(d) Give the function of the following features of presentation software.

(i) **Action buttons.** *(01 mark)*

Perform an action when clicked or pointed to such as jumping to another slide a playing a sound.

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(ii) **Speaker notes.**   *(01 mark)*

.... Are notes added to a Power Point Presentation
.... as a reference for the presenter.

(iii) **Placeholders.**   *(01 mark)*

.... they These identify the containers on a slide
.... which are shown with a dotted external bords.

26. (a) What is meant by operating system software?   *(02 marks)*

.... This is a type of system software that performs
.... daily activities of a computer

(b) Outline any **four** functions of operating system software to the computer.
                                                                         (04 marks)

(i) .... File management
.... Manage system memory

(ii) .... Manage Processing tasks.
.... Booting

(iii) .... Security management
.... Device management

(iv) .... Provide User interface

(c) Define the term **Off-shelf** software applications.   *(02 marks)*

.... Refers to packaged Software that is designed to
.... meet the needs of a wide variety of end users

(d) State two advantages of **Off-shelf** software.   *(02 marks)*

(i) _It is cheap interms of purchase_

They are user friendly

(ii) _There is no need for extra trauaing of workers /_

user.

SECTION C (20 MARKS)

*Answer only **one** question in this section*

Answers to the question must be written in the answer booklet provided

27. (a) Explain any **four** types of computer networks.   *(10 marks)*
    (b) Describe any **five** benefits of networking computers.   *(10 marks)*

28. Describe any **five** computer error messages and possible solutions.   *(20 marks)*

29. (a) Explain any **five** emerging technologies as of today.   *(10 marks)*
    (b) Discuss **five** negative implications of the emerging technologies
        identified in 29 (a) above.   *(10 marks)*