Candidate's Name……

Signature……**Personal Number**……

840/1
COMPUTER STUDIES
Paper 1
Jul. / Aug. 2023
$2^{1}/_{2}$ hours

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

SECTION A: (20 MARKS)

Answer **all** *questions in this section.*

1. The first calculator that could perform all the four arithmetic operations (Addition, Subtraction, Multiplication, and Division) was known as.

A. Slide Rule.
B. Pascal's Calculator.
C. Jacquard Rule.
D. Stepped Reckoner.

2. A telephone line is an example of a…….

A. Multiplex channel
B. Simplex channel
C. Full duplex channel
D. Half duplex channel

3. The following is the best video camera that can be used to upload still images or motion video with the aid of software during a video conference meeting

A. Digital camera.
B. Microfilm camera.
C. Camcorder.
D. Web camera.

4. The human readable version of a program.

A. Object code
B. Source code
C. Machine code
D. Assembly language

5. Which of the following views of web authoring software allows a web designer to work directly with the HTML tags?

A. Split view
B. Code View
C. Design View
D. Normal view

6. Which **one** of the following formatting features of the font draws a line through the middle of the selected text in word processing

A. Superscript.
B. Subscript.
C. Underline.
D. Strike through.

7. The following is **NOT** an advantage of using off-shelf software packages

A. They are relatively cheaper than custom software.
B. They are already available for purchase.
C. They satisfy all user specific requirements.
D. The user doesn't pay research and development costs.

8. The following computers are classified by size except?

A. Main frame.
B. Super computer.
C. Mini computers.
D. Real-time computers.

9. Which one of the following tags is written incorrectly?

A. <title> The title is here <title>
B. This is my first paragraph
C. <h1> This is my heading </ h1>
D. <head> This contains the header </ head>

10. The _____ displays the address of an active cell.

A. Formula bar
B. Name box
C. Macros
D. Function bar

11. The legal term that refers to creations of the mind that may include software, music, literature, discoveries and inventions.

A. Intellectual property
B. Patent
C. Trademark
D. Copyright laws

12. _____ is part of system software designed to configure, analyses, optimize and maintain a computer in operation

A. Application software.
B. Utility software.
C. Programing software.
D. General purpose software.

13. These are boxes with dotted lines on the slide that allows a presenter to add content to a slide with a single click.

A. Speaker notes.
B. Action buttons.
C. Placeholders.
D. Slide layouts.

14. A……..is a dedicated computer or a software system running on a computer that acts as an intermediary between an endpoint device, such as a computer, and another server from which a user or client is requesting a service.

A. Proxy server
B. Dedicated server
C. File server.
D. Web server

15. The process of creating one or more regions on a secondary storage media so that each region can be managed separately is called…….

A. Disk defragmentation
B. Disk partitioning
C. Disk formatting
D. Disk cleaning

16. Which one of the following is not a feature of a database management system?

A. Spell checker
B. Queries
C. Records
D. Fields

17. Which one of the following storage media has the highest data transfer rate?

A. Memory card
B. Magnetic tape
C. Compact disc
D. Blu-ray disc

18. A computer professional who can design and develop computer components such as storage devices, motherboards and other electronic components.

A. Web designer.
B. Database administrator.
C. Computer Engineer
D. Computer programmer

19. Which one of the following keyboard key will activate the numeric keypad

A. Shift key.
B. Control key.
C. Num-lock key.
D. Caps lock key.

20. The following measures are intended to increase the speed of the computer **except**

A. Updating outdated software
B. Installing more RAM
C. Replacing magnetic disks with SSD drives
D. Buying a new LCD monitor

SECTION B (60 MARKS)

Answer **all** *questions in this section*

All answers **must** *be written in the spaces provided.*

21. (a) Explain the meaning of the following categories of computers and give an example of each

(i) **Analogue computer** (*02 marks*)

……

……

……

Example. (*01 mark*)

……

(ii) **Digital computer** (*02 marks*)

……

……

……

Example. (*01 mark*)

……

(b) Define the term **computer hacking** (*02 marks*)

……

……

……

(c) Suggest **two** possible measures that can be applied to protect computers against hacking (*02 marks*)

(i) ……

……..

(ii) ……

…….

22. (a) Explain the function of the following components to the central processing unit

(i) **Control unit**. (*01 mark*)

……

……

……

(ii) **Arithmetic logic unit**. (*01 mark*)

……

……

……..

(iii) **Cache memory**. (*01 mark*)

……

……

…….

(b) Name **three** examples of non-impact printers. (*03 marks*)

(i) ……

(ii) ……

(iii) ……

(c) State **two** types of booting a computer. (*02 marks*)

(i) ……

(ii) ……

(d) Identify **two** possible problems why a computer may fail to boot. (*02 marks*)

(i) ……

……

(ii) ……

……..

23. (a) The following object shows a database query in design view. Study and answer the questions that follow.

Field:	PATIENT ID	PATIENT NAME	GENDER	DATE OF BIRTH	DIAGNOSIS	VILLAGE	MEDICAL FEE
Table:	Patients' Table	Patients' Table	Patients' Table	Patients' Table	Patients' Table	Patients' Table	Patients' Table
Sort:							
Show:	☑	☑	☑	☑	☑	☑	☑
Criteria:			"Female"		"Malaria"		
or:							

(i) What would be the result of the query after running it? (*02 marks*)

……

……

……

(ii) Identify **one** field where a lookup wizard would be applied during data entry. (*01 mark*)

……..

(iii) Write the criteria for returning patients born in February. (*02 marks*)

……

……

……

(b) Explain the meaning of the following terms used in spreadsheets

(i) **Relative reference**. (*01 mark*)

……

……

……

(ii) **Absolute reference**. (*01 mark*)

……

……

……

(iii) **Cell address**. (*01 mark*)

……

……

……

(c) State **two** examples of spreadsheets software. (02 marks)

(i) ……..

(ii) ……

24. (a) Give the function of the following network hardware.

(i) **Modem**. (*02 marks*

……

……

……

(ii) **Repeater**. (*02 marks*)

……

……..……

……..

(iii) **Switch**. (*02 marks*)

……

……

……

(b) Given the following URL of a website. (*03 marks*)
https:www.sharebility.net/exams/computer.html

Identify the

(i) Protocol…….

(ii) Domain name…….

(iii) Top level domain……

(c) Write the abbreviation of **URL** in full. (*01 mark*)

……..

25. (a) Differentiate between **character spacing** and **line spacing** as used in word processing. (*02 marks*)

……

……

……

……

(b) What do the following errors mean in word processing?

(i) Red – wavy underline. (*01 mark*)

……

……

(ii) Green – wavy underline. (*01 mark*)

……

……..

(c) The feature of Microsoft word that allows you to create a large capital letter at the beginning of a paragraph is called. (*01 mark*)

…….

(d) Identify the most appropriate feature of presentation suitable for the following explanations.

(i) A slide that allows the user to control all aspects of a slide appearance includes background color, font style and an on screen presentation. (*01 mark*)

……..

(ii) These are texts added to the slide as a reference for the presenter. (*01 mark*)

……

(iii) This is a special view that shows the slide and the speaker notes on the same page. (*01 mark*)

……

(iv) This is an animation-like effect that takes place when you move from one slide to the next one. (*01 mark*)

……

(v) These are basically thumbnails of slides printed together on a sheet of paper. (*01 mark*)

……..

26. (a) Define the term **operating system** (*02 marks*)

……

……

……

(b) State **two** advantages of a command line interface over a graphical user interface (*02 marks*)

(i) ……

……

(ii) ……

……..

(c) Name **two** examples of operating system software for desktop computers. (*02marks*)

(i) ……....

(ii) ……...

(d) State **two** categories of low-level programming languages. (*02 marks*)

(i) ……

(ii) ……

(e) Give **two** advantages of low-level programing languages. (*02 marks)*

(i) ……

……..

(ii) ……

……

SECTION C. (20 MARKS)

Answer only **one** *question from this section.*
Answers to the question must be written in the answer booklet provided.

27. (a) Explain any **five** possible causes of slow system performance of a computer. (*10 marks*)

(b) Suggest any **five** solutions to the problems identified in 27 (a) (*10 marks*)

28. (a) Explain any **four** advantages of client-server network. (*08 marks*)

(b) Describe any **four** networking topologies and layouts commonly used in networking. (*12 marks*)

29. Explain any **five** examples of emerging technologies and their negative implications to the society. (*20 marks*)

END