Name……………………………………………………… Index No…………………………………..

School…………………………………...………………… Signature …………………….……………

840/1
COMPUTER STUDIES
PAPER 1
July/August 2017
2¹/₂hours

WAKISSHA JOINT MOCK EXAMINATIONS

Uganda Certificate of Education

COMPUTER STUDIES

Paper 1

2hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

- *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** for each question must be written in the box provided on the right hand side of each question.*

- *Section **B** consist of **six compulsory** structured questions. Answers to this section must be written in the spaces provided.*

- *Section **C** contains **three** essay questions. Attempt only **one**. Answers to this section must be written in the answer booklets/sheets provided.*

For examiners' use only.

MCQ	Q.21	Q.22	Q.23	Q.24	Q.25	Q.26	Q.27	Q.28	Q.29	Total

SECTION A (20 MARKS)

Choose the most correct answer and write the corresponding letter in the box on the right hand side.

1. A document with copyrighted materials is marked with:
   A. ©
   B. ®
   C. €
   D. @

2. Which of these factors does not affect the internet speeds?
   A. Worldwide uses.
   B. Band width.
   C. Traffic.
   D. Type of transmission.

3. The system clock,
   A. is a storage device.
   B. shows the time and date.
   C. determine data process speeds.
   D. turns off the computer after along live.

4. …………………….. language is referred to as the first generation programming language:
   A. Assembly
   B. COBOL
   C. Machine code
   D. SQL

5. Which of the following is a file extension for an image file:
   A. .gif
   B. .dre
   C. .ppt
   D. .xls

6. A set of rules that govern exchange of data between hardware or software components in a network is called
   A. laws of communication.
   B. debugging.
   C. simplex transmission.
   D. protocols.

7. The editing tool that enables the user to find words or phrases with similar meaning (synonyms) is
   A. auto complete.
   B. thesaurus.
   C. auto correct.
   D. find and replace.

8. The following features existed in the mechanical era machines except:
    A. moving parts.
    B. mechanical gears.
    C. punched cards.
    D. vacuum tubes.

9. The term file compression means
    A. reduction in the size of files.
    B. increasing the size of the files.
    C. maintaining the size of the files.
    D. combining files.

10. The scientific milestone of using integrated circuits (IC) was a characteristic of the
    A. first generation.
    B. second generation.
    C. third generation.
    D. fourth generation.

11. Which of the following is the standard storage capacity of a compact disk:
    A. 100 KB.
    B. 4.2 GB.
    C. 700 MB.
    D. 1.44MB.

12. The historical development of computers can be divided into two main ages namely:
    A. Non-electronic and electronic computers.
    B. Big size and small size computers.
    C. First and second generation.
    D. Analog and digital computers.

13. The weaving loom and analytical engine are considered the grand parents of modern computing because they
    A. had large physical size.
    B. required human intervention.
    C. could be programmed using punched cards.
    D. have both invented by mathematicians.

14. A computer laboratory is a
    A. special room where computers are stored.
    B. special room where computers are set up for safe use.
    C. room where computers are sold.
    D. room where one can tap internet.

15. The best practice to avoid eye strain when using cathode ray tube monitor is to
    A. mount an antiglare filter.
    B. use a bigger monitor.
    C. sit a distance away from the monitor.
    D. reduce the light on the screen.

16. The presentation software has many views, which one is the convenient way of viewing all slides in the presentation?
    A. Slide sorter view.
    B. Normal view.
    C. Outline pane.
    D. Slide pane.

17. Which of the following describes the purpose of the web page?
    A. Downloading files on the internet.
    B. Uploading files on the internet.
    C. Making money on the internet.
    D. creating awareness about something on the internet.

18. The data cable of a computer is specified as 32-bit, this means it can transfer
    A. 32 bytes at a time.
    B. 4 bits at a time.
    C. 8 characters at a time.
    D. 4 characters at a time.

19. The areas of data storage on a diskette are made up of
    A. cylinders.
    B. FATS.
    C. sectors.
    D. governors.

20. The main advantage of a local area network is to
    A. enable the sharing of power source.
    B. help in forming a link between users.
    C. enables sharing of resources such as printers.
    D. increase processor speed of the stand alone computers.

SECTION B (60 MARKS)

Answer **all** questions in this section. Answers should be written in the spaces provided.

21. (a) Define the following as used in computer studies.   (02 marks)
        i) Bit.

        ………………………………………………………………………………………
        ………………………………………………………………………………………
        ………………………………………………………………………………………

        ii) Word length.

        ………………………………………………………………………………………
        ………………………………………………………………………………………
        ………………………………………………………………………………………

(b) i) Give **two** reasons why computers use binary codes (02 marks)

………………………………………………………………………………………

………………………………………………………………………………………

………………………………………………………………………………………

ii) Differentiate between **a Nibble** and **a byte** (02 marks)

………………………………………………………………………………………

………………………………………………………………………………………

………………………………………………………………………………………

(c) Convert: -
i) 1110101_2 to decimal. (02 marks)

………………………………………………………………………………………

………………………………………………………………………………………

ii) 1001_{10} to binary. (02 marks)

………………………………………………………………………………………

………………………………………………………………………………………

22. (a) (i) What is data integrity in relation to data processing. (02 marks)

………………………………………………………………………………………

………………………………………………………………………………………

………………………………………………………………………………………

(ii) List down **four** parameters that measure data integrity. (04 marks)

………………………………………………………………………………………

………………………………………………………………………………………

………………………………………………………………………………………

………………………………………………………………………………………

(b) In data processing there are various modes of processing data, state **four** factors considered when choosing a specific mode of data processing. (04 marks)

………………………………………………………………………………………

………………………………………………………………………………………

………………………………………………………………………………………

………………………………………………………………………………………

23. (a) Explain the meaning of the following terms in relation to computer programming.
i) Source program. (03 marks)

………………………………………………………………………………………

………………………………………………………………………………………

ii)   An object code.

        …………………………………………………………………………………………

        …………………………………………………………………………………………

iii)   A translator.

        …………………………………………………………………………………………

        …………………………………………………………………………………………

(b)   Give **two** ways how interpreted program is different from compiled program.

                                                                                (04 marks)

        …………………………………………………………………………………………

        …………………………………………………………………………………………

        …………………………………………………………………………………………

        …………………………………………………………………………………………

(c)   List **three** stages of a program development.   (03 marks)

        …………………………………………………………………………………………

        …………………………………………………………………………………………

        …………………………………………………………………………………………

24.   (a)   (i)   Explain the function of the following in data communication.   (02 marks)
                        i).   Bridge.

                                …………………………………………………………………………

                                …………………………………………………………………………

                        ii).   Gateway.

                                …………………………………………………………………………

                                …………………………………………………………………………

        (b)   (i)   Name **three** types of cables used in data communication.   (03 marks)

                        …………………………………………………………………………………………

                        …………………………………………………………………………………………

                        …………………………………………………………………………………………

                        …………………………………………………………………………………………

                        …………………………………………………………………………………………

                        …………………………………………………………………………………………

                (ii)   State **three** advantages and **two** disadvantages of using fibre optic cables
                        for data communication.
                        Advantages;   (03 marks)

                        …………………………………………………………………………………………

                        …………………………………………………………………………………………

....

....

....

Disadvantages   (02 marks)

....

....

....

....

....

....

25. (a) A hospital would like to use a relational database to keep track of its patients.
          Give **four** different tables that may be included in this database.   (04 marks)

....

....

....

....

....

....

....

     (b) List down **three** advantages that will result from using the database.   (03 marks)

....

....

....

....

....

....

     (c) Mention **three** challenges of using electronic database to keep track of patients'
          records in a hospital.   (03 marks)

....

....

....

Turn Over

26. (a) (i) Define the term artificial intelligence as used in ICT. (01 mark)

....

....

....

(ii) List **four** main application areas of artificial intelligence. (04 marks)

....

....

....

....

(b) (i) Mention **three** ways in which a computer can help a doctor during consultation with a patient. (03 marks)

....

....

....

(ii). Give **two** advantages of using computers to monitor the health conditions of patients in a hospital instead of using nurses. (02 marks)

....

....

SECTION C (20 MARKS)
Answer only **one** question from this section.

27. (a) Define the term device driver. (02 marks)

(b) How does an operating system contribute to the performance of a computer system. (18 marks)

28. (a) Define the following terms as used in spread sheets. (04 marks)
    (i) Label.
    (ii) Formula.
    (iii) Values.
    (iv) Function.

(b) Explain the advantages of electronic spreadsheet over the manual spreadsheets (16 marks)

29. (a) Passwords are very important to computer users in their operations.
    List down **four** ways how passwords can be protected and safe guarded.

    (04 marks)

(b) Explain the various methods used to protect computer data and systems from theft and loss. (16marks)

END