**St**u**d**e**nt's Name..........................................................................................................**

**Signature .....................................................Personal Number................................**

***(Do not write your school, or Center Number anywhere on this booklet)***

**840/1**

**COMPUTER STUDIES**

**Paper 1**

 **July 2019**

21/2 hours

**EQUATORIAL COLLEGE - SCHOOL**

**Uganda Certificate of Education**

COMPUTER STUDIES

**Paper 1**

2 hours 30 minutes

**INSTRUCTIONS TO ST**U**D**E**NTS:**

*Write your names, signature, 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** *essay questions. Answer only* **one***. Answers to section* **C** *must be written in the answer sheet provided.*

*Any additional question(s) answered will* **not** *be marked.*

**For Examiners' Use Only**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **MCQ** | **Q21** | **Q22** | **Q23** | **Q24** | **Q25** | **Q26** | **SEC: C** | **TOTAL** | **GRADE** |
|  |  |  |  |  |  |  |  |  |  |

**Turn Over**

**SECTION A: (20 MARKS)**

1. Multics where developed during the ………………….. computer generation.
2. third
3. second
4. first
5. fourth
6. I want to clean a computer virus, correct computer errors and defragment my computer. I need to make use of:
7. Programming languages.
8. Operating systems.
9. Firmware.
10. Utility programs.
11. A presentation program is largely associated with:
12. Slides.
13. Transitions.
14. Notes pages.
15. Field properties.
16. Mail-merge.
17. i, ii and iv only.
18. ii, iii and v.
19. i, ii and iii only.
20. iv, i and v only.
21. In a ring topology, signals can be amplified by a computer to another:
22. Network Interface Card.
23. Workstation.
24. Internet cable.
25. Terminators.
26. Rules and regulations concerning good behaviour while in a computer laboratory refers to computer …………………………
27. practice.
28. literacy.
29. legal issues.
30. ethics.
31. A user wants to store a string **ELSHADAI OTAFFIRE**, and he realises that the name could not fit. He should adjust the:
32. Field size.
33. Default value.
34. Validation rule.
35. Format field property.

**Turn Over**

1. Computers that interact with continuous stream of data are:
2. Special - purpose.
3. Digital.
4. Analogue.
5. General - purpose.
6. Application programs can be categorised depending on:
7. Price.
8. Tasks they do.
9. The seller.
10. Warrant.
11. Which of the following is **NOT** an input hardware device?
12. Tracker ball.
13. Mouse.
14. Barcode reader.
15. Fax machine.
16. In word processing, use of a …………… enables a user to typeset his work very fast.
17. copy and paste.
18. format painter.
19. cut and paste.
20. cut and copy.
21. ……………………… is an error message that shows a user that a compact disc may not open.
22. Disc is full.
23. Cyclic redundancy.
24. Disc failure.
25. Drive faulty.
26. <h1>, <u>, <mark>, are examples of HTML formatting:
27. Elements.
28. Attributes.
29. Tags.
30. Containers.
31. Early computers were difficult to use mainly because: They were ………………
32. were large in size.
33. frequently broke down.
34. used a lot of power.
35. were made - to - order.

**Turn Over**

1. Mustafa had data of about 4GB. He can store his data by using a:
2. Floppy diskette.
3. Compact disc.
4. Digital Versatile Disc.
5. Magnetic strip.
6. In the booting process, the operating system is loaded in …………………. to enable other processes to continue.
7. ROM.
8. BIOS.
9. CPU.
10. RAM.
11. Virtual reality means:
12. Seeing environment on the computer.
13. Using artificial intelligence.
14. Simulating environment.
15. Using computers to assess learners.
16. In a computer program, a ……………….. is a terminating symbol for a statement.
17. Main ()
18. Semi - column ;
19. Curl brackets {}
20. Hyphen -
21. A good website is one that has:

A good download speed.

1. Several graphics.
2. Needed links to other websites
3. Been hosted using a local server.
4. With a simplex communication channel, signals move in:
5. One direction at a time.
6. One direction and reversible.
7. Two directions at a time.
8. Two directions and reversible.
9. Slides are to presentations, while a ……………………. is to a spreadsheet.
10. column
11. worksheet
12. workbook
13. row

**Turn Over**

**SECTION B: (60 MARKS)**

1. (a). (i). Give **two** advantages of first generation computers at their time of discovery. (02 marks)

…………………………………………………………………………………

…………………………………………………………………………………

(ii). Fill in the table below using appropriate generation in which the technological items were discovered. (03 marks)

|  |  |
| --- | --- |
| Generation | Milestone |
| …………………………………….. | Transistor. |
| …………………………………….. | Artificial Intelligence. |
| ……………………………………. | Integrated Circuit. |

(b). State **three** ways computer viruses are transmitted in a computer laboratory. (03 marks)

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

(c). List **two** physical identification devices used in computing to provide access. (02 marks)

…………………………………………………………………………………

…………………………………………………………………………………

1. (a). (i). Distinguish a **plug** from a **port**. (01 mark)

…………………………………………………………………………………

…………………………………………………………………………………

(ii). State **two** factors considered before buying a peripheral device. (02 marks)

…………………………………………………………………………………

…………………………………………………………………………………

**Turn Over**

(b). Malemo wants to transfer work from one computer to another. State **two** solid state storage media he will use. (02 marks)

…………………………………………………………………………………

…………………………………………………………………………………

(c). Explain the following error messages in relation to computer use:

(i). Device not ready. (01 mark)

…………………………………………………………………………………

…………………………………………………………………………………

(ii). Device not installed correctly. (01 mark)

…………………………………………………………………………………

…………………………………………………………………………………

(d). State **three** reasons for restarting a computer. (03 marks)

…………………………………………………………………………………

…………………………………………………………………………………

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1. (a). State **three** data types used in electronic spreadsheets. (03 marks)

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

(b). Use the figure below to answer questions following:

|  |  |  |  |
| --- | --- | --- | --- |
|  | A | B | C |
| 1 | Item name | Unit price | Quantity |
| 2 | Sumbusa | 20 | 250 |
| 3 | Egg - Roll | 40 | 1,200 |
| 4 | Bagiya | 60 | 250 |
| 5 | Doughnut | 20 | 250 |
| 9 |  |  |  |
| 10 | Mode |  |  |

(i). State the result if **=MAX(B2:B5)- MIN(B2:B5)** is placed in cell B9. (01 mark)

…………………………………………………………………………………

**Turn Over**

(ii). If quantity sold is to increase by 30%. What will be the formula needed to return new quantity projection for Sumbusa in cell E2. (01 mark)

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

(iii). Explain how you insert a thousand separator for data in cell range B2:C5. (01 mark)

…………………………………………………………………………………

…………………………………………………………………………………

(c). State **two** database objects normally used to organise records. (02 marks)

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

(d). (i). If a criterion **Month([Date of Birth])=1** in used in the query field for Date of Birth. Which months with this object return? (01mark)

…………………………………………………………………………………

(ii). State **two** advantages of using electronic databases. (02 marks)

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

1. (a) State **two** causes of signal attenuation during data communication. (02 marks)

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

(b). Give **three** factors to consider before setting up a Local Area Network. (03 marks)

…………………………………………………………………………………

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…………………………………………………………………………………

**Turn Over**

(c). Distinguish between a **Webpage** and a **Website**. (02 marks)

…………………………………………………………………………………

…………………………………………………………………………………

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(d). State any **three** consideration for using images in your website. (03 marks)

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

1. (a). What is a **word processor**? (02 marks)

…………………………………………………………………………………

…………………………………………………………………………………

(b) State **three** facilities that can be used to emphasise text in a word processor. (03 marks)

…………………………………………………………………………………

…………………………………………………………………………………

(c). Give **two** items that can be adjusted using a place-holder on a slide. (02 marks)

…………………………………………………………………………………

…………………………………………………………………………………

(d). (i). State **two** advantages of using a slide master in a presentation. (02 marks)

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

(ii). Give **one** quality of a good presentation. (01 mark)

…………………………………………………………………………………

…………………………………………………………………………………

**Turn Over**

1. (a). State **three** ways genuine software is obtained by a user. (03 marks)

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

(b). Outline **two** activities utility programs carryout in relation to disk management. (02 marks)

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

(c). Define the following terms in relation to computer programming:

(i). Variable. (01 mark)

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

(ii). Declaration. (01 mark)

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

(d). State **three** characteristics of a good programming language. (03 marks)

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

**Turn Over**

**SECTION C: (20 MARKS)**

*Answer only* ***one*** *question*

1. Your Dad has bought the following hardware devices to set up a small network.

* 8 port switch.
* 6 Dell stand alone computers.
* 8GB RAM chip.
* A roll of CAT6e.
* Clipping tool.
* RJ45 modules

(a). Identify the possible physical network topology you should set up using all the devices above. Give a reason for your answer. ***(04 marks)***

(b). Briefly, describe the use of each of the devices above in relation to building a network. ***(12 marks)***

(c). Outline four advantages of establishing a network for your Dad’s cafe. ***(04 marks)***

1. (a) With the help of examples define the term software testing. ***(06 marks)***

(b) Mutuku took a loan of Ugx. 400,000 from a local bank at an interest rate of 10% payable in four years. Assuming you wish to develop a computer program that will keep track of monthly repayments:

1. Identify the input, processing and output requirements for such a program. ***(04 marks)***
2. Design the algorithm for the program using a simple flowchart and pseudocode.  ***(10 marks)***
3. You are provided with the following computer components:

* Computer set,
* Printer cartridge,
* Printing papers,
* USB Cable,
* Power socket,
* 64 bit plug and play USB- supported printer.

(a). Describe how the above components are connected to have a finally working printer.  ***(07 marks)***

(b). Explain how you can correct paper jam in the printing process. ***(04 marks)***

(C). Draw a **sketch** of a QWERTY key board and include the following keys

* Enter
* Tab
* Caps lock
* All functional keys
* Space bar ***(09 marks)***

**END**