Name…………………………….....................… Index Number……………………/……..

451/1
Computer Studies
Paper 1
(THEORY)
July/AUG 2014
2½ hours

Candidate's signature...

BUSIA COUTY JOINT EVALUATION EXAMINATIONS-2014
Kenya Certificate of Secondary Education
Computer Studies
Paper 1
(THEORY)

INSTRUCTIONS TO CANDIDATES

Write your name and index number in the spaces provided above.
Sign and write the name of examination in the spaces provided above.
*This paper consists of **TWO** sections; A and **B**.*
*Answer **ALL** the questions in section **A**.*
*Answer question **16** and any other **THREE** questions from section **B**.*
All answers should be written in the spaces provided on the question paper.

For official Use Only

Section	Question	Candidates Score
A	1-15	
B	16	
	17	
	18	
	19	
	20	
TOTAL SCORE		

This paper consists of 10 printed pages

1. What is a computer drive? (1 Mark)

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2. Mr. Osanoa computer technician in one of the schools used speech method to store students oral answers to an exam into a computer

   a) What is a speech input? (1 Mark)

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   …………………………………………………………………………………………

   b) State one advantage and one disadvantage of using this kind of input. (2 Marks)

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3. In reference to ALU, explain the meaning of logic operations and give an example of this processing operation. (2Marks)

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4. a) Identify the four types of storage media shown below (2Marks)

   I   ii   iii   iv

   ………

   ………

   b) Compare the storage device (i) and (iii) above (1Mark)

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

5. a) Define the term firewall (1 Mark)…………………………………………………………………

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   b) State three ways of ensuring efficient backup of data (2Marks)

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6. a) Outline the three program control structures (1½Marks)

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b) Give three types of selection construct (1½Marks)

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c) Define the term encapsulation as applied in object oriented programming (2Marks)

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7. i) What is Hypertext Mark Up Language? (1Mark)

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ii) Why should a program be documented in each and every stage?

(1Mark)………………………………………………………………………………………………

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8. A student was reading through a daily newspaper on different types of data communication media. As a computer student, how will you assist him define the term data communication media? (1Mark)

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9. i) Differentiate between share level security and user level security as used in network security.

(2Marks)………………………………………………………………………………………………

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ii) What are the differences between Token ring topology and Ethernet topology?

(2Marks)

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10. i) Describe the term biometric analysis (1Mark)

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11. Give two uses of spreadsheets in a government office concerned with carrying out national census (2Marks)

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12. i) A student at Sunshine secondary school was working with a computer using the windows operating system. After sometime he started experiencing the following problems.
- The computer failing to load the Operating system during the booting process
- The computer hangs now and then
- Abnormal restarting
- Display a blue screen with the message such as fatal exception error has occurred.

What could be the cause of the above problems? (2Marks)

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ii) A student was advised by the teacher to buy integrated software over separate software. What do you think could be the advantages of this? (2Marks)

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13. a) What is a deadlock? (1Mark)
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b) Explain the term plug and play
(1Mark)..
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....

c) Differentiate between a program file and a data file
(1Mark)..
....

14. i) State two factors you would consider when designing a file (1Mark)
....
....

ii) List down three factors you need to consider during file conversion
(3Marks)..
....
....
....

15. State two limitations of language processing (2Marks)
....
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*Answer question **16** and any other **three** questions from this section in the spaces provided.*

16. (a) State the importance of the following in programming

    (i)   Assembler   (1mk)

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…………………………………………………………………………………………

    (ii)   Compiler   (1mk)

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(b) A form four class sat for an exam in eight subjects. A student must get an average of 50% in all subjects in order to pass. A report is required that will show the name, marks obtained by each student per subject, the average mark and whether the student has passed or failed.

    (i) **Write** a pseudocode used to solve this problem.   (6mks)

    (ii) Draw a flow chart for this report.   (7mks)

17. (a)(i)State any THREE standard coding schemes used in computing and electronic systems.

(1½marks)

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...……

...……

(ii) Convert 312_{10} using any TWO of the above mentioned coding schemes. (2 marks)

(iii) Using TWOs compliment, perform the following arithmetic leaving your answer inbinaryform

(2marks)

10_{10} - 13_{10}

(iii) Use one's compliment to solve the following sum: $-18_{10}+12_{10}$ (2 ½ marks)

(b) (i) Explain the difference between the terms **browser** and a **search engine** with an example of each (3marks)

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...……

...……

(ii) What is the use of the **favorites** feature of an Internet browser? (1 mark)

..………

..………

(iii) What do the following abbreviations stand for? (3 marks)

i.URL.……

ii. ISP.……

iii. WWW.……

18. (a) Differentiate between the following as used in word processing (6marks)
(i) An **indent** and **a tab stop**

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(ii) **Margins** and **gutter**

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(iii) **Footnotes** and **Endnotes**

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(b) A History teacher directed all students to present their work in double space format. Outline the procedure for double spacing a document. (3marks)

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(c) Owili, a form Four student, formatted a document to four columns. Explain how this was achieved in word processing   (3marks)
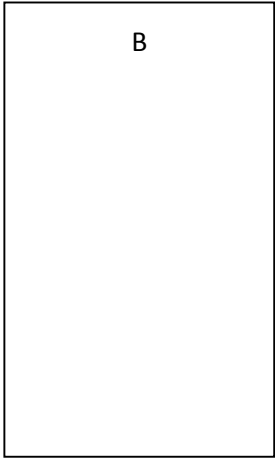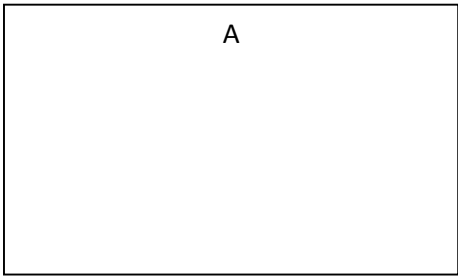
...………

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(d) Ndwiga printed documents with paper layout as shown below.

A

B

   (i) Identify the layouts.   (1mark)

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...………

   (ii) Explain when each layout should be applied   (2marks)

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19. (a) Computer students visited KASSUJET TV station in the city and noticed that the News presenter in the studio was communicating in real time with other four reporters through a web cam and a microphone connected to a notebook PC nearby. The live images of the other reporters were projected on a white board mounted in the studio.

(i) Describe this type of communication.   (2 marks)

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(ii) State any TWO advantages and ONE disadvantage of this type of communication. (2 marks)

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(b) Currently there is a shift in technology towards digital from analog. State any THREE advantages of digital technology over analog technology. (3 marks)

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(c) (i) Documentation is usually not considered as a programming stage. Why is this so? (2 marks)

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(ii) Differentiate between internal and external documentation. (2 marks)

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(ii) State THREE types of documentation that are available at the end of the programing project. (3 marks)

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………
………
………

20. Martina Lotino went to the supermarket and bought the items shown in the picture of the spreadsheet given below:

(a.) (i) What is the name of the **active sheet**? (1 mark)

..……

(ii) By looking at the above picture, give the **reference of an active cell**. (1 mark)

..……

(iii) What function did the examiner use to **copy** the above picture on this examination paper? (1 mark)

..……

(b) (i) A cell can contain a formula. **Name** the other TWO items which a cell can contain. (2 marks)

..……

..……

(ii) Now, Julieta , a new employee, has just joined the company and does not know the difference between a formula and a function. You are required to explain this to her in the space provided below. Support your explanation with an example of each. (4 marks)

Formula:……………………………………………………………………….…………………

Example:……………………………………………………………………….…………………

Function:……………………………………………………………………….…………………

Example: ……………………………………………………………………….…………………

(c) (i) Write the **formulae** that must be typed in the following two cells: **D5, D7** (2 marks)

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……………………………………………………………………………………….…………………

(ii) Write the function that must be typed in cell **D9**: (2 marks)

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…………………………………………………………………………………………………….………………

(iii) The bill total in cell D9 amounts to Ksh.860 Martina has a Ksh.1000 note. Write the formula that calculates the change in **D12**. (2 marks)

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