**Name: …………………………………………………………… Index no ……..…...................................**

**Candidate’s sign ………………………….... Date: ……………………………**

**451/1**

**COMPUTER STUDIES**

**PAPER 1**

**(THEORY)**

**JUNE 2014**

**TIME 2 ½ HOURS.**

STAREHE BOYS’ CENTRE & SCHOOL

**2014 MOCK EXAMINATION**

***Kenya Certificate of Secondary Education Format(K.C.S.E.)***

**INSTRUCTIONS TO CANDIDATES**

* *Write your* ***name*** *and* ***index******number*** *in the spaces provided above*
* *This paper consists of* ***Two*** *sections* ***A*** *and* ***B****.*
* *Answer* ***ALL*** *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**

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| --- | --- | --- |
| **SECTION** | **QUESTIONS** | **CANDIDATES SCORE** |
| **A** | 1-15 |  |
| **B** | 16 |  |
| 17 |  |
| 18 |  |
| 19 |  |
| 20 |  |
| **TOTAL SCORE** |  |

**SECTION A (40 MARKS)**

1. Define the following terms as used in computer software. (4mks)

a) Integrated software

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b) Customized software

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c) Software suite

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d) Software patch

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2 . Distinguish between a word and word length as used in data representation. (2mks)

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3. Perform the following binary arithmetic. (2mks)

1001011.011-111.111

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4. What is printed by the following algorithm? (3mks)

X= 1

While x < = 8 do

 Y= 2x + (x\*x)4

 Print y

 X = x + 2

 End while

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5. Define the following terms as used in Microsoft excel chart. (3mks)

a) data range

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b) data series

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c) data labels

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6. a) List **THREE rules to be followed** when creating relationship between two tables in MS access. (3mks)

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b) What is a database model? (l mk)

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7. Name **three** disadvantages of telecommuting to the employer. (3mks)

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8. List **three** duties of a database administrator. (3mks)

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9. You have been asked to select input devices that would be used by physically disabled persons

in an organization. List **three** devices and identify the kind of person that would be able to use

the device. (3mks)

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10. Explain the difference between LCD and plasma monitors as used in computing. (2mks)

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11. State **two** attributes of a monitor that affect its display and explain how the monitor is affected.

 (2mks)

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12. Describe the following memories as used in computing. (3mks)

i) Cache memory

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ii) Random access memory

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iii) Virtual memory

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13. What is deadlock in reference to operating systems? (l mk)

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14. Describe any **four** ways/tools of proof reading documents in Microsoft word. (2mks)

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15. Describe the following terms as used in desktop publishing. (3mks)

i) Master pages

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ii) Tracking

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iii) Kerning

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**SECTION B**

16. a) List **four** characteristics of first generation of computer languages. (2mks)

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b) Write a pseudo code for a program that can accept the age of students and count the number

of students in a class. The program should calculate the total and average age of the group of students if the data entry is terminated by the yes input for exiting the processes. The program should print the numbered list of students in the class with their ages and, total number of students and the average age of the students. (6marks)

b) Draw a flowchart for the pseudo code above. (7 marks)

17. a) List and explain the advantages of adding file attachments to an electronic mail. (2mks)

b) What is a uniform resource locator? (l mk)

c) Explain the following terms (4mks)

i) Hypertext

ii) Hypermedia

iii) Hyperlink

iv) FTP

d) Distinguish between uploading and downloading. (2mks)

e) List **three** functions of a browser. (3mks)

f) Name **SIX** basic elements of an e-mail compose window. (3mks)

18. (a) Almost all computers use binary numbers for internal computations. Give THREE advantages of using binary number system as opposed to others in computers. (3 marks)

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(b) Add 11012 to 11112 (1 mark)

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 (c) Perform the following computations.

(i) Find the BCD equivalent of 3710 (2 mark)

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 (ii) Using 8-bit coding scheme, subtract 5610 from 9210 using ones complement method. (4 marks)

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 (iii) (I) Compute the value of N in the equation: 11001102 – N = 0010102. (3 marks)

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 (II) What is the decimal equivalent of the binary number 110.1012? (3 marks)

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19. A large company uses an electronic mailing system (EM) to communicate between its offices located in different geographical sites (using a **WAN**) as well as between offices in the same building (using a **LAN**).

 (a) What does a **WAN** stand for? (1 mark)

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 (b) Explain any **TWO** reasons why a company will prefer a LAN and not a WAN (4 marks)

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(c) (i) Give **FOUR** advantages of using an electronic mailing system compared with the telephone system. (2 marks)

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(d) Every person using an EM system needs to have an identifier, which can be found out by all other users. Why is it necessary? (2 marks)

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(e) (i) Explain any THREE reasons why the public telephone network is not always suitable for data communication between computers? (3 marks)

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(ii). State THREE possible solutions that could be adopted in addressing the problems in

 question e (i) above (3 marks)

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20. a) A student at booker academy has a document of 10GB in a hard disk. He wants to

 transfer the document into a floppy disk of 1.44MB. Determine the number of floppy

 disks he requires. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (3mks)

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. (b) Differentiate between a smart terminal and an intelligent terminal (2mks)

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(c) List down the FOUR file organization methods and their mode of accessing records (2mks)

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(d) What are the FOUR characteristics of a user-friendly program? (2mks)

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 (e) Explain briefly the FOUR main stages in data processing cycle (4mks)

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d) Highlight **four** characteristics of a flash memory. (2 mks)

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