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

School: …………….…………………………………....…. Candidate's sign ………………….....

Date: ……………..…………………………………………

451/1
COMPUTER STUDIES
PAPER 1
(THEORY)
JULY/AUGUST 2011
TIME 2 ½ HOURS.

RACHUONYO SOUTH DISTRICT JOINT EVALUATION TEST
Kenya Certificate of Secondary Education (K.C.S.E.)

Computer Studies
Paper 1

INSTRUCTION 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

SECTION	QUESTIONS	QUESTION'S ACTUAL SCORE	CANDIDATES SCORE
A			
B			
	TOTAL SCORE		

This paper consists of 8 printed pages. Candidates should check the question paper to ensure that all pages are printed as indicated and no questions are missing

SECTION A (44 MARKS)

Answer all the questions in this section.

1   Explain why a computer is described as electronic device.   (1mk)

……………………………………………………………………………………………

……………………………………………………………………………………………

2. List **three** things that should be considered when categorizing computers.   (½ mk)

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

3. List any **three** characteristics of first generation computers.   (3mks)

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

4. a) Dickson wanted to install computers into a room without windows. Give Dickson **four** ways of
       ensuring proper ventilation into this room.

……………………………………………………………………………………………

……………………………………………………………………………………………

b) State the effect of powder fire extinguisher to the computer in a laboratory.

……………………………………………………………………………………………

……………………………………………………………………………………………

5. a) (i) Give the difference between a share ware and free wave used with software. (2mks)

……………………………………………………………………………………………

……………………………………………………………………………………………

ii) Give the difference between a keypad and a keyboard   (1 mk)

……………………………………………………………………………………………

b) Differentiate between a computer and a computer system.   (2mks)

……………………………………………………………………………………………

……………………………………………………………………………………………

6. a) Explain the difference between type over and insert mode in word processing.   (2mks)

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

b) i) List any **four** menus on the menu bar of the MS — WORD.   (lmk)

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

ii) What does the word hard return mean in MS. word?   (lmk)

……………………………………………………………………………………………

7   a) Differentiate between expert system and artificial intelligence.   (2mks)
………………………………………………………………………………………………………
………………………………………………………………………………………………………

b) i) Explain briefly the role played by the environmental protection agency(EPA) (lmk)
………………………………………………………………………………………………………
………………………………………………………………………………………………………

ii) Explain how information and communication technology has contributed   adversely to
environmental pollution.   (2mks)
………………………………………………………………………………………………………
………………………………………………………………………………………………………

8   a) State the uses of the following network devices.   (2mks)
i) Hub…………………………………………………………………………………
ii) Switch: …………………………………………………………………………………

b) i) Define the term protocol.   (lmk)
………………………………………………………………………………………………………

ii) Distinguish between thinnet and thicknet coaxial cables.   (2mks)
………………………………………………………………………………………………………
………………………………………………………………………………………………………

9.   a) Draw a diagram showing the analog and digital signals respectively.   (2mks)
Digital signals

Analog signals

b) Convert $(1.011)_2$ to a decimal number.   (3mks)

10.   What is the difference between batch processing and multi programming as used in data
processing?   (2mks)
………………………………………………………………………………………………………
………………………………………………………………………………………………………

11.   What is the meaning of BIOS and what is its rule in computer.   (1mk)
………………………………………………………………………………………………………
………………………………………………………………………………………………………

12.   Define the term "direct access" as used with read/write head.   (1mk)
………………………………………………………………………………………………………

© RACH– 2011   *Form Four*   3   *Computer Studies 451/1*

13. What is a brouter used in networking. (1mk)

……

14. What do you understand by the term "hard system" in a system developmemt? (lmk)

……

15. State **one** reason that may lead to computer fraud.

……

SECTION B (60 MARKS)

Answer question 16 and any other three questions from this section in the spaces provided.

16. a) A technician charges fees based on the number of hours worked as follows:
    two hours or less, a fee of.$90.00 per hour.
    up to six hour a fee $75.00 per hour.
    more than 6 hours, a fee of $ 60.00 per hour.
    Write a structured algorithm to input the hours worked. The algorithm should
    output the hour worked and the fee charged. (4mks)

b) Assume you want to write a program that computes your tax earnings for one week of work at a
    first — food restaurant. A payroll problem is a typical programming problem .use the following
    data for week.
    Number of hours worked for a week   = 20 hours.
    The hourly pay rate   = $5.00 per hour.
    Your tax rate   = 20% tax rate.
    i) Write a pseudo code for the above problem. (5 mks)

    ii) Draw a flowchart for the above problem. (5mks)

17 a) List **four** characteristics of a system (4mks)

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

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

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

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

b) Give any **three** circumstances that may make an organization to develop a new information system. (3mks)

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

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

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

c) State any **two** factors that may be considered in order to design a good file.. (2mks)

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

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

d) List down **four** uses of a multimedia. (4mks)

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

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

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

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

e) List any **two** functions of operating (2mks)

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

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

18. a) Differentiate between margins and column guides. (2mks)

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

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

b) Explain the uses of any four tools found on page maker toolbox. (1mks)

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

c) What are the three main purposes of desktop publishing software. (3mks)

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

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

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

d) Explain the following:
   i) Font type style (1mk)

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

   ii) Line stroke. (lmk)

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

19 a) Explain the functions of each of the following in computer studies. (4mks)
   (i) File server

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

   (ii) Network interface card

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

(iii) Network operating system

………

(iv) Cables in LAN

………

b) List **three** standards to which integrated software must conform to.   (3mks)

………

………

………

c) What do the term header and footer mean?   (2mks)

………

………

d) i) What do you understand by the terms scaling and cropping.

………

………

ii) Describe the WYSIWYG display as used in a publication.   (2mks)

………

………

20. a) Define the following terms.   (3mks)
   i) Record

………

ii) File.

………

iii) Database

………

b) i) List any **three** ways of dealing with virus on a computer.   (3mks)

………

………

………

ii) Explain the functions performed by: (3mks)
   a) The control unit

………

b) Arithmetic and logic unit (ALU)

………

c) Main memory:

………