

NAME INDEX NO.....

SCHOOL CANDIDATE SIGNATURE

DATE

451/1
COMPUTER STUDIES
(THEORY)
PAPER 1
JULY/AUGUST 2013
TIME: 2½ HOURS

LENOCET EVALUATION TEST KENYA CERTIFICATE OF SECONDARY EDUCATION

451/1
COMPUTER STUDIES
(THEORY)
PAPER 1
JULY/AUGUST 2013
TIME: 2½ HOURS

INSTRUCTIONS TO CANDIDATES

- ❖ Answer **ALL** questions in section A.
- ❖ Answer question **16** compulsory and any other **THREE** questions from section B.
- ❖ All answers should be written in the spaces provided on the question paper.

For Examiners Use Only

Section	Questions	Candidates score
A	1 - 14	
B	15	
	16	
	17	
	18	
	19	
TOTAL SCORE		

*This paper consists of 11 printed pages.
Candidates should check the question paper to ensure that all the
papers are printed as indicated and no questions are missing.*

SECTION A (40 MARKS)

Answer all the questions in this section.

1. a) Explain the role of the following
- (i) Computer programmer (4 mks)
- _____
- _____
- _____
- _____
- (ii) Software engineer (1 mk)
- _____
- _____
2. (i) What is electronic point of sale terminal? (1 mk)
- _____
- _____
- (ii) Explain **two** advantages of using this system. (2 mks)
- _____
- _____
- _____
- _____
- (iii) Give an application area of this system. (1 mk)
- _____
3. Explain the purposes of the following files.
- a) Back up (1 mk)
- _____
- _____
- b) Reference (1 mk)
- _____
- _____
4. a) Perform the following binary arithmetic giving the answer in decimal notation. (2 mks)
- $11101.011 + 111.11$

b) State **two** application areas of virtual reality.

(2 mks)

5. What are the purposes of the following DOS commands.

(3 mks)

a) RD

b) DIR * *

c) CD

6. a) State **three** differences between wide area network and local area network.

(1½ mks)

b) Explain the terms below as used in computer network.

(i) Point to print

(1 mk)

(ii) Broadcast

(1 mk)

7. State **three** parts that constitute an IFstatement.

(1½ mks)

8. You are provided with USB, Parallel and serial cables. Which of the cables provided can be used to;

a) Support variety of peripheral devices.

(1 mk)

c) Transmit data in short distance.

(1 mk)

d) Transmit data fast in long distance.

(1 mk)

9. The formula $K20 + P\$18$ was typed in cell L21 and then copied to cell M24 of spreadsheet. Write a formula as it appears in cell M24.

(2 mks)

10. Distinguish between logical and physical files as used in computer.

(2 mks)

11. Tea processing zone wants to acquire a new software.

a) State **three** items that should accompany the software.

(1½ mks)

b) State **three** purposes of word processing package.

12. Give **two** differences of high and low level languages.

(2 mks)

13. Define the terms below.

a) Nibble

(1 mk)

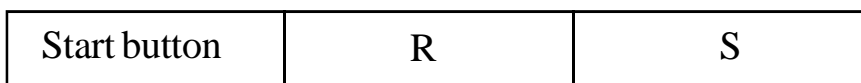
b) Bit

(1 mk)

c) Word

(1 mk)

14. The diagram below represents a task bar. Use it to answer the questions below.



a) Name the part labelled;

(i) R

_____ (1/2 mk)

(ii) S

_____ (1/2 mk)

b) Explain the differences between R and S.

(1 mk)

15. a) Name **two** types of files in a computer.

(1 mk).

b) Explain safety precaution in computer used in safeguarding.

(i) Hardware

(1 mk)

(ii) Loss of computer programs

(1 mk)

SECTION B: (60 MARKS)

Answer question 16 which is compulsory and any other three questions from this section

16. a) Define the terms below.

(i) Algorithm

(1 mk)

(ii) Pseudo code

(1 mk)

(iii) Flowchart

(1 mk)

b) Draw a flowchart to compute the result of the following formula.

(5 mks)

$$K = \frac{1}{(M+1)^2}$$

c) Write a program in high level language for a flowchart in b (above)

(5 mks)

d) Explain the purpose of program compilation before testing.

(2 mks)

17. You are provided with the following entries in the spreadsheet.

	A	B	C	D	E	F	G
		MONTHS					
1	Items	Jan	Feb	Mar	April		
2	Shoes	500	500	500	500		
3	Pencils	400	300	600	700		
4	Books	100	200	450	350		
5	Ruler	900	760	350	102		
6	Rubber	60	80	200	450		

a) State the cell data type represented by;

(i) Cell A4

(1 mk)

(ii) Cell C4

(1 mk)

(iii) Explain the difference between cell A4 and C4.

(1 mk)

b) Provide a formula for cell E5 that can be used to give 10% increase of cell E5.

(2 mks)

c) Using count function, write an expression to determine the number of items greater than 300 in the month of January.

(2 mks)

d) Explain **two** reasons why;

(i) Hypertext mark up language is not a true programming language.

(iii) State **three** examples of web scripting language.

(3 mks)

e) Differentiate between validation and verification as used in system development.

(1 mk)

f) Explain **two** advantages of using modules during system implementation stage of development.

(2 mks)

18. a) (i) Explain **two** advantages of acquiring micro - computers in schools.

(2 mks)

(ii) With an aid of well labelled diagram explain mesh network topology.

(3 mks)

(iii) Explain two advantages and one disadvantage using this topology.

(2 mks)

b) Distinguish between

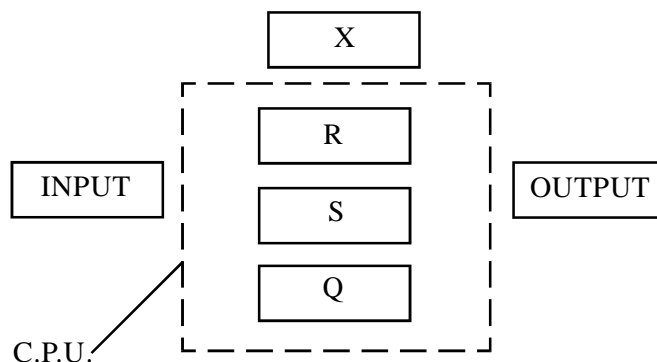
(i) Data encryption and passwords.

(1 mk)

(ii) Dry run and walk through

(1 mk)

c) The diagram below represents essential features of a computer system. Study the diagram and answer the questions that follows.



(i) Name the components

(4 mks)

X _____
R _____
S _____
Q _____

(ii) In the diagram above indicate the direction of data flow using arrows.

(2 mks)

19. a) (i) What is multimedia?

(1 mk)

(ii) State **two** examples of multimedia system devices.

(2 mks)

b) Firestone Kenya purchased hardware components from World Computer services

- Firestone Kenya, later demanded a document of warranty.

(i) What is a warranty?

(1 mk)

(ii) Describe **three** important information that may entail in the warranty.

(6 mks)

c) Give **three** examples of special purpose memories found in the central processing unit.

(3 mks)

d) Explain difference between read and write with reference to computer memory.

(2 mks)

20. a) Explain how the operating system perform the following.

(i) Job sequencing. (2 mks)

(ii) Job scheduling (2 mks)

b) With use of examples describe two types of desktop publishing software. (4 mks)

c) Define the terms below

(i) Chatting (1 mk)

(ii) Website (1 mk)

(iii) Search engine (1 mk)

b) Explain the effect of information technology in;

(i) Employment (2 mks)

(ii) Environment (2 mks)
