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

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

Date: ……………….……………………………………

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

KISUMU WEST 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

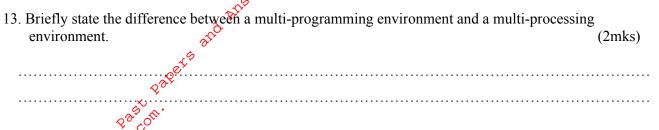| SECTION	QUESTIONS	QUESTION'S ACTUAL SCORE	CANDIDATES SCORE
A	1-14		
B	15		
	16		
	17		
	18		
	19		
	TOTAL SCORE		

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 (40 MARKS)
Answer all the questions in this section.

1. Name types of registers and explain the purposes for each type of register. (5mks)

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2. State the factors you will consider when selecting an input device. (3mks)

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3. Define the following terms:- (4mks)
(i) Assembler :-

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(ii) Compiler: -

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(iii) Interpreter:

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(iv) Source program:

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(v) Object program:

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(vi) Algorithm :-

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(vii) Flow chart:

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(viii) Pseudo code: -

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4. What merits does time sharing data processing method offer. (2mks)

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5. Commercially produced packages have disadvantages as compared to user made packages. State the disadvantages. (3mks)

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6. Write the following acrimonious in full as used in computer studies. (2mks)
(i) WYSWYG

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(ii) RMM with reference to memory –

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(iii) EBCDIC –

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(iv) OS –

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7. Explain the types of error that are likely to exist in a program? (4mks)

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8. A firm which wants to undertake programming of its tasks has approached as a software engineer to advice on what to look for in the high levet language to use. Outline the factors it should observe in its choosing task. (4mks)

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9. What advantages do bubble memories have for a user who opts for them? (2mks)

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10. Name the volatile main memory in the computer and state its use. (2mks)

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11. State advantages that an electronic spreadsheet has over traditional spreadsheets (4mks)

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12. Differentiate between Value parameter and actual parameter (3mks)

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13. Briefly state the difference between a multi-programming environment and a multi-processing environment. (2mks)

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SECTION B
Answer question 14 and <u>any</u> other three questions in this section

14. In any given triangle ABC, the tangent of an angle A given the three sides of the triangle as a, b and c can be obtained by the formula

$$Tan \; \tfrac{1}{2} A = \sqrt{\frac{(s-a)(s-c)}{s(s-a)}}$$

Where s= ½ (a+b+c).

With aid of program development tool write the code that will calculate tan ½ A. (15 marks)

15. (a) Computers are being made use of in the education sector. Explain how they are being made use of.
(8 mks)

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(b) The medical industry is experiencing a lot of break through by use of IT. Discuss the use of Computers in medical. (4 mks)

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(c) Computing technology has many application areas of our life. For each of the following three areas give examples of how the application of this technology has improved the work being done: - (3mks)
(i)Banking

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(ii) Communication

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(iii) Retail systems

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16. Write brief notes on
(i) structured programming (4mks)

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(ii) telecommuting (3mks)

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(iii) asynchronous mode of data transmission on a line (3mks)

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(iv) computer crimes and abuse   (5mks)

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17. (a). Define the following terms
   (i) Database   (½mk)
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   (ii) database management system   (½ mk)
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   (iii) hierarchical database   (1 mk)
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   (iv) relational database   (1 mk)
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   (v) network database   (1 mk)
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(b) List the advantages of using an electronic database system for storage of data over the
    file approach.   (4mks)
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(c) Study the spreadsheet below and answer the questions that follow

	A	B	C	D
1	WESTERN COMPBOOK CENTRE SALES			
2	BOOK TITLE	PRICE PER BOOK	BOOKS SOLD	
3	DBASE IV	400.00	145	
4	LOTUS FOR DUMMIES	460.00	15	
5	OFFICE WORD IN 3 DAYS	300.00	65	
6	LEARN C++ IN 3 DAYS	700.00	100	
7	TEACH YOURSELF PASCAL	700.00	200	
8	COMPUTER STUDIES	500.00	300	
9	THE CLEVER FOOL: COMPUTER	300.00	10	
10				

(i)   Write down the formula that can be used to find the price of the most costly book.   (1mk)

(ii) Write down the formula that can be used to determine the total sales for the book titled
COMPUTER STUDIES. (1mk)

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(iii) Write down the formula that can be used to determine the average price of the books. (1mk)

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(iv) Write down the formula in cell D6 that can be used to find the new price per book if they went up
by a percentage written in cell B 10 and the formula has to be entered only in cell D3 then be copied to
others. (1mk)

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(v) Write down the output in D7 if in B6 is 10% (1mk)

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(d) State any four advantages of using an electronic spreadsheet as compared to a traditional
worksheet (2mks)

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

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(b) List file organisation methods (2mks)

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(c) Name and explain three level of programming languages. (4mks)

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(d) What are the characteristics of a user-friendly program? (3mks)

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(e) What is the work of a system analyst (2½mks)

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(f) Name data types supported by a spreadsheet and give four examples of a spread sheet software   (3mks)

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19. (a) Explain what systems software is   (5mks)

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(b) Explain the factors that make it necessary to have operating systems in the today computers   (5 mks).

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(c) Name and briefly explain user interfaces   (5mks)

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