

Name.....

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COMPUTER STUDIES
Paper 1 (THEORY)
July/Aug. 2008
2 ½ Hours

KISUMU DISTRICT JOINT EVALUATION TESTS - 2008
Kenya Certificate of Secondary Education (K.C.S.E)

451 / 1
COMPUTER STUDIES
Paper 1 (THEORY)
July/Aug. 2008
2 ½ Hours

INSTRUCTION TO CANDIDATES

- *This paper contains of two sections A and B.*
- *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.*

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Section	Question	Candidate's Score
A	1-15	
B	16	
	17	
	18	
	19	
	20	
Total Marks		

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 questions in this section in the space provided.

1. State an area of application for each of the following devices. (3 marks)

Digitizers.....
Touch Screens.....
MICR.....
Speech Recognition Devices.....
Joystick.....

2. Suggest the importance of the following features in the document preparation. (4 marks)

Thesaurus.....
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Spellcheckers.
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3. Describe how the Operating system manages computer memory (2marks)

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4. List any two-cursor movement keys and two editing keys. (2 marks)

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5. Explain how computers have become important in transport industry. (2 marks)

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6. Explain the following terms:

(a) Piracy (2 marks)

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(b) Eaves dropping (2 marks)

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7. Name two responsibilities that are carried out by a computer engineer. (2 marks)

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8. Differentiate between looping and selection as used in programming. (4 marks)

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9. What do you understand by the following computing terms? (2 marks)

Artificial intelligence

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10. Why was the OSI model created? (2 marks)

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11. What is the purpose of a modem and where would a modem be used. (2 marks)

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12. Explain the terms "Distributed system" and "Computer Network" (4marks)

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13. What are the essential differences between mainframe, mini and microcomputers? (3 marks)

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14. Distinguish between logical and syntax errors during program testing and debugging. (2 marks)

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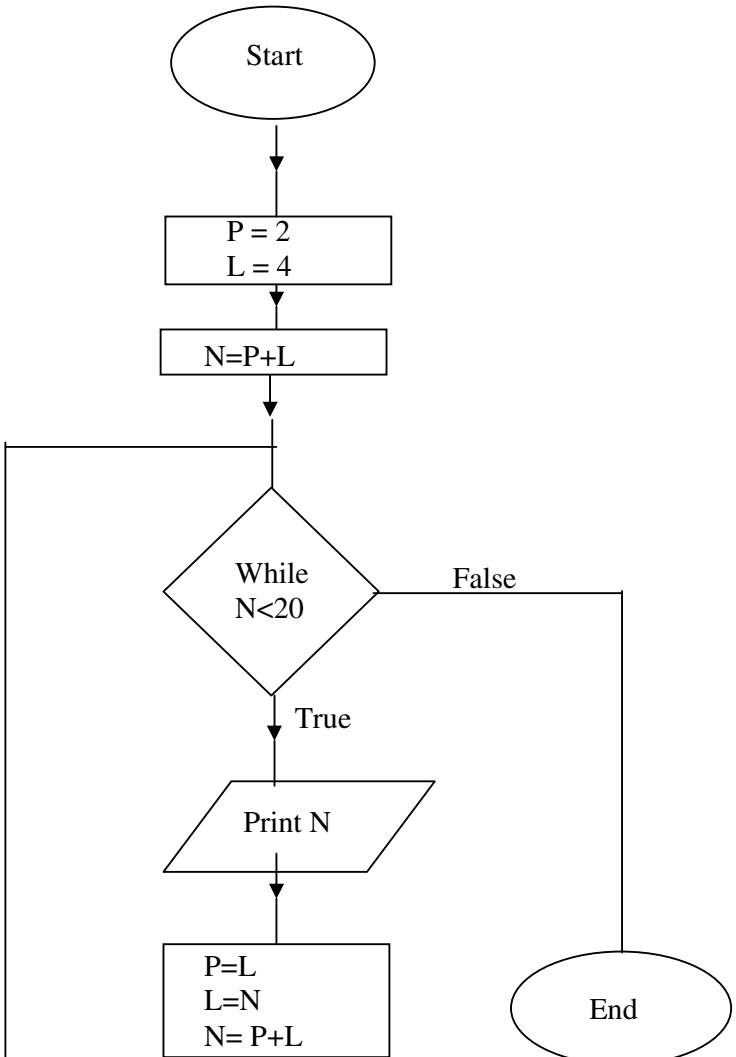
15. What role does communication hardware play in a computer system? (2marks)

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SECTION B (60 MARKS)

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

16. Study the flowchart below and answer the questions that follow



(i) Name the control structures used in the flowchart. (2mks)

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(ii) Determine the values of P,L,N. (6mks)

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(iii) Write a pseudocode for the flowchart above. (6 mks)

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(iv) State atleast one advantage of a high level language. (1 mk)

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17. (a) What is the difference between ASCII and EBCDIC (2 marks)

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(b) Workout the following binary subtraction $11001_2 - 1101_2$ (2marks)

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(c) Define the following terms in relation to data collection: (6 marks)

i. Data creation

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ii. Data transmission

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iii. Data preparation

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(d) What do you understand by the term wireless communication? State *three* advantages and one disadvantage of this type of communication. (5 marks)

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18. (a) Discuss any three-health concerns that arise as a result of the use of computers [6 Marks]

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(b) In regard to a computerised system, define the following terms (6 marks)

i) Utility programs

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ii) Search engine

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iii) Optical scanning

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c) What do the following initials stand for in regard to internet? (3 Mks)

(i) www

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(ii) html

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(iii) com

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19. a) Discuss any two most common computational errors in Data Processing. (2mks)

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b) Using an illustration describe the four primary stages of the data processing cycle. (4mks)

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c) Distinguish between the following pairs of terms:

Physical and logical files. (2mks)

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Multiprocessing and multiprogramming. (2mks)

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d) Convert the following decimal number to hexadecimal 298.125_{10} .

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e) (a) State two functions of networking software giving an example of NOS in the market. (3mks)

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20. (a) Write the following algebraic expression using a pseudocode. (4mks)

$$q \frac{a+3}{b-2}$$

(a) What is meant by troubleshooting. (2mks)

(b) Study the table below and perform the tasks below it.

	A	B	C	D
1	CONTINENT	CONTINENT ABBREVIATION	Total sales	TAX
2				

Write an IF function that,

(i) Calculate the tax at 15% of total sales if the total sales are above 2000 and 7.5% of the total sales for total sales of 2000 and below. (2mks)

(ii) Abbreviates continents as AFR for Africa, UER for Europe and US for USA. (2mks)

c) State and explain reasons why an organization would like to develop a new information system. (3mks)

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d) State an application of simulation. (1mk)

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