

Name.....

Index No.....

School.....

Candidate's Signature.....

Date

451/1
COMPUTER STUDIES
(THEORY)
Paper 1
July/August 2009
2 ½ Hours

KIRIMA JOINT EVALUATION TEST - 2009
Kenya Certificate of Secondary Education (K.C.S.E)

451/1
COMPUTER STUDIES
Paper 1
(THEORY)
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2 ½ Hours

INSTRUCTIONS TO CANDIDATES

- This paper consists of TWO sections A and B
- Answer all questions in section A.
- Answer question 16 (Compulsory) and any other **THREE** questions in section B.
- All answers should be written in the spaces provided in the question paper

For Official use only.

Section	Question	Candidates Score
A	1 – 15	
B	16	
	17	
	18	
	19	
	20	
Total Score		

*This paper consists of 7 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 Questions in this section in the spaces provided.

1. List two devices that use micro-electronics in their operations (2mks)
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2. State two applications of mark sensing (1mk)
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3. a) Name two ways in which data can be input into a computer, and state the device that can be used in each case. (2mks)
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b) Explain why a buffer is used in the output of data to a line printer (1mk)
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4. Explain the purpose of the following types of memory (2mks)
i) ROM.....
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ii) RAM.....
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5. What is a peripheral device (1mk)
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6. Give two reasons why computers need backing storage (2mks)
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7. a) List any four high level programming languages (2mks)
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b) Distinguish between compilers and interpreters (2mks)
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8. a) Explain the term DOCUMENTATION as used in computer software (2mks)

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b) State one application of DOCUMENTATION (1mk)

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9. State four ways in which computers and their related technology are used in medical research (2mks)

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10. Differentiate between computer Aided Instruction (CAI) and computer Aided Learning (CAL) (2mks)

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11. Give one function of a primary key (1mk)

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12. a) Describe simulation in relation to computers (2mks)

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b) Briefly discuss VIRTUAL REALITY in computers (3mks)

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- c) State two benefits to retailers who use E-POS (2mks)

13. a) List two types of paper orientation (2mks)

- b) Name two keys used to delete text in a document (2mks)

14. a) Identify two different applications in a school that might be implemented by using a spreadsheet package (2mks)

- b) For each application, give two features that make a spreadsheet package particularly suitable (2mks)

15. Translate the hexadecimal number 8E into (2mks)
- a) Binary
- b) Denary

SECTION B (60 MARKS)

Answer Question 16 and any other THREE questions from this section in the spaces provided.

16. a) Design a pseudocode that requests the user to enter a temperature in degrees centigrade, calculates the corresponding temperature in degrees Fahrenheit and prints the given temperature and the converted value. (8mks)

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b) Draw a flowchart of the above pseudocode you have designed (4mks)

c) Describe the three essential programming constructs which form the basis of structured programming (3mks)

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17. A school has decided to network its computers so that it can distribute information over a local intranet. The school also intends to connect the local network to the Internet.

a) Describe three different topologies that could be used to network the computers (6mks)

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b) The various services are to be provided by servers. Briefly describe the services provided by (6mks)

i) Print server

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ii) Internet server

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iii) intranet server

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c) Electronic mail (E-mail) is very popular. Explain how you would prepare and send a message using e-mail (3mks)

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18. a) Explain how you can defend your files from the following risks (8mks)

i) Fire in the computer

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ii) Hackers

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iii) Virus attack

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iv) Disgruntled ex-employees

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b) Differentiate between private data and confidential data (4mks)

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c) List three sources of viruses (3mks)

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c) How does a bank prevent its customers from withdrawing more money than they have
in their account? (3mks)

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d) i) What is telecommuting? (2mks)

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ii) Name three pieces of hardware that would be needed for one to telecommute
(3mks)

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