

NAME INDEX NO.....

SCHOOL

451/1
COMPUTER STUDIES
PAPER 1
(THEORY)
JULY/AUGUST 2008
TIME 2 ½ HOURS

LAIKIPIA DISTRICT JOINT MOCK EXAMINATION Kenya Certificate of Secondary Education (KCSE) 2008

451/1
COMPUTER STUDIES
PAPER 1
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INSTRUCTIONS TO CANDIDATES:

- ❖ Write your **name** and **Index** number in the spaces provided above.
- ❖ This paper consists of **TWO** sections **A** and **B**.
- ❖ Answer **ALL** the questions in section **A**.
- ❖ Answer question **16** and any other **THREE** questions from section **B**.
- ❖ All answer should be written in the spaces provided

SECTION	QUESTIONS	CANDIDATE'S SCORE
A	1-25	
B	16	
	17	
	18	
	19	
	20	
	TOTAL SCORE	

SECTION A

ATTEMPT ALL THE QUESTIONS IN THIS SECTION

1. Differentiate between ROM and RAM

(2mks)

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2. (a) **Convert** the octal number 1111_8 to its base ten equivalent (2mks)

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(b) **Convert** 11.011_2 to a decimal number (2mks)

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3. (a) **Define** the following terms with reference to computer crime

(a) Cracking (1mk)

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(b) Hacking (1mk)

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(b) **State any two** laws governing protection of information (2mks)

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4. **Distinguish** between Job scheduling and job sequencing (2mks)

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5. **List any four** precautions that must be observed in a computer lab (2mks)

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6. (a) **What** is the major difference between a webpage and a website (2mks)

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(b) **Mention four** database models that you have learnt (2mks)

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7. **Differentiate** between a computer operator and computer technician. (2mks)

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8. **Define** the term mail-merge (2mks)

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9. (a) **What** is the advantage of electronic spread sheet over manual work (2mks)

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(b) **What** is cell referencing (1mk)

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10. **State the TYPES** of desk Top publishing (DTP) (2mks)

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11. **List three** elements of networking (3mks)

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12. Briefly **explain any three** application areas of ICT (Information and Communication Technology) (3mks)

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13. List **any two** types of
a) Optical disk (1mk)

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b) Magnetic disk (1mk)

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14. **Distinguish** between Disk formatting and disk partitioning (2mks)

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15. (a) **State and define** any two types of computer processing file (1mk)

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(b) **List any two** file organization methods (2mks)

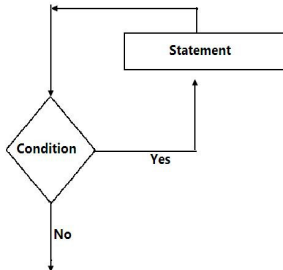
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SECTION B (60 MARKS)

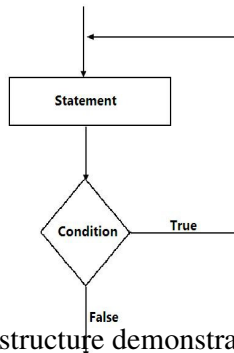
Answer questions 16 (Compulsory) and any other three questions from this section

16. (a) Consider the module flow charts extracts below

(i)



(ii)



State the looping structure demonstrated in (2mks)

(i)

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(ii)

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.....

(b) **State four** examples of third generation languages (2mks)

(i)

(ii)

(iii)

(iv)

(c) **Define** the following terms as used in programming (2mks)

i) Assembler

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ii) Compiler

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iii) Translator

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iv) Interpreter

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- b) Jokims retailers has two categories of customers processing category 'A' obtain 10% discount on all orders up to Ksh. 10,000. Otherwise the discount is 20% on entire order. Category 'B' obtains 30% on all orders if the debt payment records is good otherwise the discount is 15%. **Write** a pseudocode for the order processing (9mks)

17. (a) Below are two tables structures of files in a database

Employee		Employee Details	
Field	Data type	Field	Data type
Employee name	Text	Employee no	Number
Employee number	Auto number	Date employed	Data/time
DOB	Date/ Time	Department	Text
Address	Text	Salary	Currency

- (i) Which of the two tables is likely to be the parent table (1mk)

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- (ii) It is advisable to 'enforce referential integrity' when creating a relationship. When creating a relationship, what do you understand by the term referential integrity? (2mks)

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- (iii) The field 'employee no' In the employee details table is likely to be the primary key what is a primary Key (2mks)

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(iv) Which fields in both tables is most appropriate for creating a relationship?(1mk)

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(v) **What** would make the relationship between the tables fail to work? (2mks)

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(b) In databases, the field properties specify finer details related to the fields and the table entries expected. **State four** field properties. (4mks)

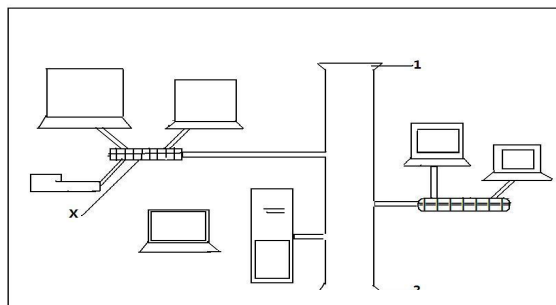
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(c) **State three** functions of a database (3mks)

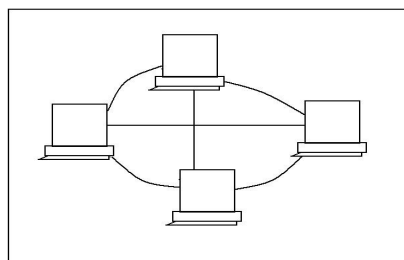
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18. (a) Consider the topologies demonstrated in the diagram below

A



B



C

(i) **Identify** the network topologies (3mks)

A

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.....

B

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.....

C

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.....

(ii) In topology **A**, **identify** the network device that should be at the end points 1 and 2 (1mk)

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(iii) **Which** of the above topologies is likely to be used in a wide area network? (1mk)

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.....

(iv) **Highlight three** disadvantages of topology **B** (3mks)

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.....

(v) **Identify** the device labeled **X** in topology **A** (1mk)

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.....

(b) **State two** main classes of network software (2mks)

- (i)
-
- (ii)
-

(c) Briefly **describe** the following as used in networking (4mks)

(i) Repeaters

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(ii) Network hub

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(iii) Fibre optic cables

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(iv) Network interface card (NIC)

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19. (a) **Define** feasibility study as used in system (2mks)

(b) **State four** devices under direct control of the operation system (2mks)

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(c) Briefly **describe** the following types of computational errors (3mks)

(i) Truncated

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(ii) Transposition

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(iii) Transcription

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(d) **Explain three** most commonly used coding schemes (3mks)

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(e) **Distinguish** between online and real time processing (2mks)

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(f) **State one** advantages and two disadvantages of command line interface (3mks)

Advantages

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Disadvantages

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.....

20. (a) (i) **Explain three** communication services offered through internet (3mks)

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(ii) **Describe** the following internet terms (2mks)

Links

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URL

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(b) The following is a spreadsheet relating to a farmer.

	A	B	C
1	Crop	Amount	
2	Maize	150	
3	Bean	300	
4	Cashew nuts	850	
5	Cabbages	1036	

(i) A function =IF (B2<200, “Not Viable”), IF (B2>300, “Moderate”), IF (B2>1000, “Viable”))).

Give the appropriate result returned in cells C2, C3, C4 and C5 (2mks)

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(c) Text can easily be selected using a mouse in word processing. **How** do you select

i. Multiple paragraph (2mks)

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ii. Vertical block of text

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(d) **Distinguish** between (2mks)

(i) A widow and an orphan in word processing

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(ii) Cut and copy commands

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(e) **Give one** purpose of drop caps on a text paragraph (1mk)

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(f) (i) **What** is an expert system (1mk)

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(ii) **Give two** applications of expert systems (2mks)

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