

NAME:.....INDEX .....DATE.....

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451/1  
COMPUTER STUDIES  
PAPER 1  
JULY / AUGUST, 2010  
2½ HOURS

## JOINT INTER-SCHOOLS EVALUATION TEST (JISSET) Kenya Certificate of Secondary Education 2010

451/1  
COMPUTER STUDIES  
PAPER 1  
JULY / AUGUST 2010

### INSTRUCTIONS TO CANDIDATES

- ❖ *This paper consists of two sections A and B.*
- ❖ *Answer all the questions in sections A*
- ❖ *Answer question 16 and any other **three** questions from section B*

### For Examiners Use Only

Section	Question	Score
A	1 - 15	
B	16	
	17	
	18	
	19	
	20	
	Total marks	

**SECTION A (40 MARKS)** Answer all the questions in this section

1. State **four** different parts that make up a computer (2 mks)  
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.....  
.....
2. Briefly explain the emerging trends in micro computer technology in relation to size (1 mk)  
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.....
3. (a) What is meant by the term greyware? (1 mk)  
.....  
.....
- (b) State **two** ways of acquiring software (1 mk)  
.....  
.....
4. (a) Distinguish between impact and non impact printers (2 mks)  
.....  
.....  
.....
- (b) MICR and OMR (2 mks)  
.....  
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.....
5. Describe the following terms
- (a) Website (1 mk)  
.....  
.....
- (b) Blog (1 mk)  
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.....
- (c) Hyperlinks (1 mk)  
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.....
- (d) Web portal (1 mk)

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.....  
6. List four stages of data collection (2 mks)

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.....

7. Explain the **role** of the following ICT specialist (2 mks)  
(a) Computer Technician

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.....

(b) Information systems manager (2 mks)

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.....

8. Distinguish between defragmentation of a disk and partitioning of a disk with reference to operating systems (2 mks)

Defragmentation

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.....

Partitioning

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.....

9. (a) Give **four** advantages of DTP over a word processor (2 mks)

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.....

(b) Differentiate between the following

(i) Kerning and tracking (2 mks)

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.....  
.....

(ii) Margins and column guides (2 mks)

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10. Headache, back and neck pain may result from use of computers. State how each of them can be minimized (2 mks)

Headache

.....  
.....

Back and neck pain

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.....

11. Explain the meaning of the following terms as used in computer programming (2 mks)

(i) Syntax

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.....  
.....

(ii) Semantics

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12. (a) State two methods/tools that a system analyst uses to design a system (2 mks)

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.....

(b) Give two reasons why maintenance phase in system development cycle is necessary (2 mks)

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.....

13. Explain the functions of the following network devices (2 mks)

Bridge

.....  
.....

Gateway

.....  
.....

14. Differentiate between baseband and broadband signal as used in networking (2 mks)

Baseband signal

.....  
.....

Broadband

.....  
.....

15. Identify two areas where computers are used today (1 mks)

.....  
.....

**SECTION B (60 MARKS)**

**Answer question 16 and any other three questions from this section**

16. Khetia supermarket pays 10% commission on sales that are above 20,000 kshs, and 4% on any sales that are less than this target. However, no commission is paid on the capital of the salesman.

- (a) Design a pseudo code for a program that would: (7 mks)
- (i) Prompt a user for sales and capital of a particular salesman
  - (ii) Calculate the commission and total amount
  - (iii) Display the commission and total amount on the screen for a particular salesman

- (b) Draw a flow chart for the above pseudo code (8 mks)

17. (a) What is the hexadecimal equivalent of  $767_8$

(3 mks)

7

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(b) Use one's compliment to solve the following sum:  $-5_{10}$  (2 mks)

(c) State two reasons for using binary in digital technology (2 mks)

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.....

(d) Explain the role of a modem in data communication (2 mks)

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(e) Describe each of the following computer terminologies as used in data representation (4 mks)

(i) Word

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.....



(ii) Bit

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.....

(iii) Byte

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.....

(iv) Nibble

.....  
.....

(f) Convert  $7.125_{10}$  to binary

(2 mks)

18. (i) Name four data types used in spreadsheets

(2 mks)

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.....  
.....

(ii) Outline five advantages of an electronic spreadsheet over the traditional ledger

(5 mks)

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(iii) What is a chart wizard in spreadsheets?

(1 mk)

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(iv) Name and explain the use of the following buttons found in spell-check dialog box in reference to word processing (6 mks)

(a) Change

.....  
.....

(b) Ignore once

.....  
.....

(c) Add

.....  
.....

(v) What is a template in word processing? (1mk)

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.....

19. (i) Describe three ways in which computers have positively impacted on education (3 mks)

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(ii) (a) Simulation is one of the application areas of computers. What is meant by the term simulation? (1 mk)

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.....

(b) State three advantages of computer based simulation (6 mks)

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.....

(iii) Differentiate between a software engineer and a computer engineer. (2 mks)

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.....

(iv) Name three responsibilities that are carried out by a web administrator. (3 mks)

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.....

20. (i) List and briefly describe three components of a database system (3 mks)

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.....  
.....  
.....

(ii) Define the following terms as used in a database (3 mks)

a. Attribute

.....  
.....

b. Database model

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.....

c. Macro

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.....

(iii) Explain three types of database models (6 mks)

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(iv) State three objectives of normalization (3 mks)

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