

NAME:INDEX NO:.....

SCHOOL:

451/1
COMPUTER STUDIES
PAPER 1
THEORY
JULY / AUGUST 2007
TIME 2 ½ HOUR.

BOMET DISTRICT MOCK EXAMINATION Kenya Certificate of Secondary Education 2007

COMPUTER STUDIES
PAPER 1
THEORY
JULY /AUGUST 2007

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 Examiners Use Only

Section	Questions	Candidates Score
A	1-15	
B	16	
	17	
	18	
	19	
	20	
	TOTAL SCORE	

This paper consists of 11 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

1. **State three** classifications of micro computers when classified according to size. (3mks)

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2. **Give three** main advantages of using computers for data processing functions over other types of office and business equipments (3mks)

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3. (a) **What** is disk partitioning? (2mks)

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(b) **Give two** reasons for partitioning a disk. (2mks)

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4. Give a reason for each of the following hardware considerations when selecting a computer system (4mks)

(i) Processor speed.

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(ii) Warranty.

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(iii) Upgradeability and compatibility.

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(iv) Portability.

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5. **Outline** the functions of the following utility software (3mks)

(i) Loaders.

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(ii) Debuggers.

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(iii) Linkers.

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6. Draw a diagram to illustrate the following. (3mks)

(i) USB Port.

(ii) Serial Port.

(iii) Parallel Port.

7. A computer operator in your school wanted to print a document but the printer could not print yet the online light is on and the printer paper is correctly placed. **Give** the other possible reasons why the printing process failed. (2mks)

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8. **Differentiate** between office and magnetic scanning techniques and give two example of each. (4mks)

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9. **Explain** what the following Dos commands achieve when executed.

(i) C: \> DIR P *.EXE (1mk)

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(ii) A: \> format (1mk)

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10. **List three** main types of human computer interface (3mks)

- (i)
- (ii).....
- (iii).....

11. **Define** the following terms as used in word processing.

(i) Word wrap (1mk)

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(ii) Thesaurus (1mk)

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12. **What** is telecommuting? (2mks)

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13. **Differentiate** the following terms

(i) Source program (1mk)

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(ii) Object code (1mk)

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14. **Define** the following terms

(a) Data processing (1mk)

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(b) Data processing cycle (1mk)

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15. **List any four** factors to be considered when selecting software. (2mks)

- (i)
- (ii)
- (iii)
- (iv)

SECTION B

Answer question 16 (compulsory) and any other three questions from this section.

16. You have been asked by a standard four mathematics teacher to generate a list of even numbers between 0 and 201.

(a)

(i) **Write** a pseudocode used to solve this problem. (6mks)

(ii) **Draw** a flow chart for the program above. (5mks)

(b) **List four** data types used in structural programming. (4mks)

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17. (a) **Define** the following programming terms. (4mks)

(i) Machine language.

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(ii) Translator.

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(b) **Outline** the change over strategies that can be used to move from manual system to computerized system. (3mks)

(i)

(ii)

(iii)

(c) (i) **State** the stage of program development where an interview is used. (2mks)

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(ii) **State two** advantages and **two** disadvantages of using interviews at the stage in C(i) above.

Advantages

(i)

(ii)

Disadvantages

(i).....

(ii)

18. (a) **What** is an expert system? (2mks)

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(b) (i) **What** is a robot? (2mks)

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(ii) **Outline any four** advantages of using robots in industries over human beings. (4mks)

- (i)
- (ii)
- (iii)
- (iv)

(c) **Explain** the following career opportunities in computing.

(i) Software Engineers (1mk)

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(ii) Computer technician (1mk)

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(iii) Computer programmer (1mk)

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(iv) System analyst (1mk)

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(d) **Give three** main categories of higher learning where you can advance your computer skills after O-level.

- (i)
- (ii).....
- (iii)

19. (a) **Differentiate** between a formula and a function as used in Excel. (2mks)

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(b) **What** is the effect of the following function?
 COUNTIF (A5:D5,"orange"). (2mks)

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(c) The first column in the table below contains the formula stored in all C10 of a spreadsheet. **Enter** the formula as they would appear when copied to cell F15 of the same spreadsheet. (3mks)

FORMULA IN C10	FORMULA IN F15
=A56*B5	
=A\$5	
=4*B\$6	

(d) (i) **Explain** the concept of distributed databases. (2mks)

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(ii) **State two** advantages of distributed databases. (2mks)

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(e) **Outline two** uses of forms in database design. (2mks)

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(f) **List any two** word processor software. (2mks)

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20. (a) **Indicate** the method of file access for the following file organization methods. (2mks)

Organization method	File access
(i) Random	(i)
(ii) Sequential	(ii)
(iii) Serial	(iii)
(iv) Index Sequential	(iv)

(b) Use one's complement to **calculate** $11101_2 - 101_2$ (4mks)

(c) **Convert** 0.375_{10} into binary notation. (2mks)

(d) **Define** the term network topology. (2mks)

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(e) **List any four** physical topologies in a network (3mks)

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(f) **Differentiate** between Ethernet and Token Topology. (2mks)

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