

NAME..... INDEX NO.....

SCHOOL..... CANDIDATES SIGNATURE.....

DATE.....

451/1

COMPUTER STUDIES

PAPER 1(THEORY)

TIME: 2½ HOURS

Kenya Certificate of Secondary Education

COMPUTER STUDIES

PAPER (THEORY)

TIME: 2½ 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** question in section **B**
- All answers should be written in the space provided in the question paper

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

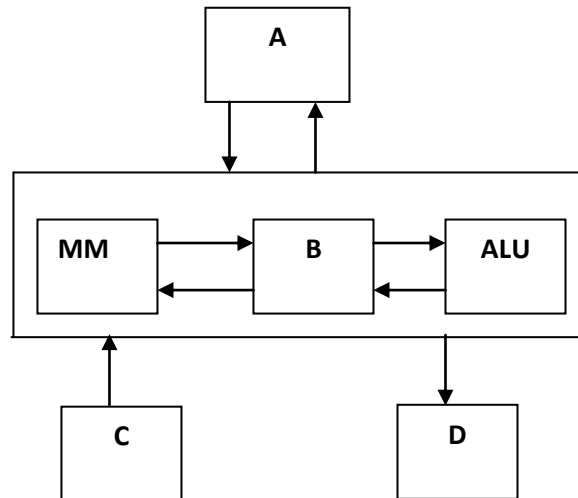
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*This paper consists of 12 printed pages.
Candidates should check the question paper to ascertain that
all pages are printed and no questions are missing*

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

1. Name **TWO** computer crimes. (1mk)
.....
.....
2. Give an example of the following:
 - a) Keying device (1mk)
.....
.....
 - b) Pointing device (1mk)
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.....
 - c) Scanning device. (1mk)
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.....
3. Give **TWO** reasons why operating systems were developed. (2mks)
.....
.....
.....
4. List **THREE** things which accompany newly purchased software. (3mks)
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.....
.....
5. A printer fails to work as expected when a document is sent to be printed. The user has checked that the on-line light of the printer is on and the printing paper is correctly inserted. Give **TWO** other possible reasons why the printing process failed. (2mks)
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.....
.....
6. Explain the difference between serial and parallel data transmission. (2mks)
.....
.....
.....
7. Programmers use programming languages to write programs. Based on this statement, distinguish between the following terms as applied in programming.
 - a). Source code and an object code. (1mk)
.....
.....
 - b). Machine language and assembly language. (1mk)

8. Computer hardware components consists of control unit(CU), main memory(MM), arithmetic and logic unit(ALU), secondary storage devices, input and output devices. Study the diagram below and answer the questions that follow.



Name the parts labelled A, B, C and D.

(2mks)

9. Assuming that data is being transmitted using odd parity ASCII system, what could you deduce if each of the following bits are received?

a). 10100101

(1mk)

b). 10111001

(1mk)

10. a). What is a secondary storage device?

(1mk)

b). Give **THREE** reasons why DVD's are increasingly being used today.

(3mks)

11. a). Explain the following features as used in word processing.

i). Word wrap

(1mk)

.....
.....
ii). Thesaurus

(1mk)

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

FORMULA IN C10	FORMULA IN F15
=A5*B5	
=A\$5	
=4*B\$6	

12. Give **THREE** responsibilities of a systems analyst.

(3mks)

.....
.....
13. a). What is meant by the term tele-commuting?

(1mk)

.....
.....
b). An organization intends to install tele-commuting in its operations. List **THREE** disadvantages that are likely to be encountered.

(3mks)

.....
.....
14. a). Name the stage of systems development life cycle where an interview is used.

(1mk)

.....
.....
b). State **TWO** advantages and **TWO** disadvantages of using interviews at the stage in 14(a) above.

Advantages

(1mk)

.....
.....
Disadvantages

(1mk)

.....
.....
15. a). Give **TWO** examples of desktop publishing software.

(1mk)

b). A computer teacher at Mpeketoni Girls High School tells students to always ensure that computers are connected to uninterrupted power supply. List **TWO** reasons why it's necessary to have this device in a computer lab.

(1mk)

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.....

SECTION B (60 marks)

Answer Question 16 and any other three questions from this section.

16. A programmer uses program design tools to design a program that can list the odd numbers between 0 and 100.

a). (i). Write a pseudo code for this problem. (5mks)

ii). Draw a flow chart for the pseudo code in 16 a) (i) above. (6mks)

b). Name **FOUR** data types used in structured programming. (4mks)

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.....
17. a). (i) Define the term information system. (1mk)

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.....
(ii) Differentiate between a closed system and an open system in relation to system boundary. (2mks)

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.....
iii). Outline the stages of systems development life cycle in their logical sequence briefly describing what takes place at each stage. (7mks)

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.....
b). i). A user wishing to access the internet may use a modem or an ISDN connection. What is the purpose of a modem? (1mk)

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.....
ii). Explain why using an ISDN connection to the internet eliminates the need for a modem. (1mk)

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.....
.....
iii). State **THREE** forms of communication that can be transmitted by an ISDN line. (3mks)

18. a). (i) What is data privacy? (1mk)

ii). Give **FOUR** provisions of the Data Protection Act of 1984 regarding personal data. (4mks)

b). List **FOUR** factors to be considered when choosing a data processing mode. (2mks)

c). (i) What is an expert system? (1mk)

ii). State **TWO** advantages and **TWO** disadvantages of using expert systems.
Advantages (2mks)

Disadvantages (2mks)

d). Explain the following terms as applied in internet communication.
i). Search Engine. (1mk)

ii). Uniform Resource Locator (URL) (1mk)

iii) Domain name (1mk)

19. a). List **TWO** characteristics of good information. (2mks)

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.....
.....

b). (i). What is a database management system? (1mk)

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.....
.....

ii). State and explain **THREE** database models. (3mks)

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.....

c). Describe the following types of files.

i). Master file. (2mks)

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.....
.....

ii). Backup file. (2mks)

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.....
.....

iii). Transaction file. (2mks)

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.....
.....

d). Explain the file organization methods given below.

i). Serial. (1mk)

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.....
.....

ii). Indexed sequential. (1mk)

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

iii). Random. (1mk)

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

20. a). Explain what is achieved by the following WINDOWS commands. (2mks)

i). Save as.....

.....

ii). Save.....

.....

