

NAME: _____ INDEX _____
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451/1

PAPER 1

THEORY

2 ½ HOURS

Kenya Certificate of Secondary Education (K.C.S.E)

COMPUTER STUDIES

2 ½ HOURS

INSTRUCTIONS TO CANDIDATES

- ❖ Write your **name** and index **number** in the spaces provided.
- ❖ This paper consists of **two** sections **A** and **B**.
- ❖ Answer all the questions in section **A**.
- ❖ Answer question 16 and any other **3** questions from section **B**.
- ❖ All answers should be **written** in the spaces provided

This is for official use

A		
B	16	19
	17	20
	18	TOTAL

SECTION A (40 MARKS)

Answer all the questions in this section in the spaces provided.

1. Distinguish between parallel and serial cables (2 mks)

2. Differentiate between **Error Handling** and **interrupt handling**

(2 mks)

3. Name four malicious programs that can affect your computer system (2 mks)

4. What is meant by expert systems? Name the three components

(4 mks)

5. Name two ways of editing cell entries in spreadsheets. (2 marks)

6. Describe TWO roles of each of the following;

(a) Database Administrator (2 marks)

(b) System analyst (2 marks)

7. (a) Describe two facilities offered by email software such as Ms Outlook. (2 marks)

(b) Name other two email softwares available in the market? (1 mark)

8. State the functions of the following protocols; (2 marks)

(a) FTP

(b) TCP/IP

9. What is meant by World Wide Web?

(2 marks)

10. Explain the difference between Gas Plasma Display and Liquid Crystal display Monitors
(2 marks)

11. State the purpose of the following field properties in a Database management software (2 mks)

(a) Input Mask

(b) Validate Rule

12. Differentiate between logical and syntax errors encountered in programming (2 marks)

13. What is a computational error? Give an example to illustrate (2 mks)

14. Anita was working on her computer studies project. She was worried of the media to use for storing her data. She settled on a media that used serial file organization. How are files organized on a storage medium using this method? List two advantages offered by this type of file organization (3 mks)

15. Define the following terms in relation to computer security: (6 mks)

a) Data Encryption

b) Sabotage

c) Firewall

SECTION B (60 MKS)

Answer question 16 and any other 3 questions.

16. a) Generate output for the following pseudo code

(4mks)

```
START
  X= 1
  WHILE X<4 DO
    PRINT (X)
    X=X+1
    Y= X +2
  ENDWHILE
PRINT ("DONE",X)
END
```

b) Draw a flowchart for the above pseudo code

(4 mks)

b) List any four components of Requirement specification made during system development

(2 mks)

c) Describe three kinds of program documentation used in program development (6 mks)

17. The information below is maintained by Jesica Fruit store. Study it and answer the questions that follow:

Product number	Product name	Qty in stock (kg)	Value per unit (ksh)
001	Peach	1000	200
002	Oranges	1200	200
003	Mangoes	1300	100
004	Tomatoes	1200	140
005	Cabbages	1500	25

a) Describe the field data types used in the database above (4 mks)

b) Provide query statements you can use to list the following;

i) Product names starting with letter P.

(2 mks)

ii) Value per unit below 200.

(2 mks)

i) List and describe four areas of application of spreadsheets.

(4 mks)

ii) Explain Data range, legend and axis as used in spreadsheet charts.

(3 mks)

18 a) What is automated production. List two advantages and two disadvantages of automated production (5mrks)

b i) Name three ways of representing signed binary numbers (3 mks)

ii) Convert $5D6_{16}$ to Binary (2 mks)

iii) Describe any four activities that take place during implementation stage of a system (4 mks)

d) Define the following terms as used in DTP software (1 mks)

i) Cropping

19. a) State and explain any four operating system disk management utilities (8 mks)

b i) What is system maintenance? (2 mks)

ii) Define the following terms in relation to computer software (3 mks)

[illegible][illegible][illegible][illegible]

ii) Bus topology,

iii) Star topology

b) Define the following terminologies in relation to networking (4 mks)

i) Crosstalk

ii) Noise

iii) Attenuation

iv) Frequency

c) State two advantages of wireless communications (4 mks)

d) List down one major advantage of networking. (1mk)
