

KAPSABET HIGH SCHOOL



POST MOCK 2024



COMPUTER STUDIES

451/1

PAPER 1

TIME: 2½ HOURS

NAME..... SIGN.....

INDEX NO..... ADM NO.....

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

- Write your Name, Admission number and UPI number in spaces provided above.
- This paper consists of **TWO** sections.
- Answer **ALL** questions in section A.
- Answer Question 16 and any other **THREE** Questions from Section B
- All answers **MUST** be written in the spaces provided on this question paper.

For Examiner's Use Only

Questions	Maximum Score	Actual Score
1-15	40	
16	15	
17	15	
18	15	
19	15	
20	15	
TOTAL		

SECTION A: 40 MARKS

Answer all the questions in this Section.

1. State two reasons for the increased use of Laptop computers in modern workplaces **(2marks)**

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2. What precautions would you take in the computer laboratory incase users are complaining of overheating and suffocation. **(2marks)**

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3. Convert the decimal number 15.373_{10} to its binary number system equivalent. **(3marks)**

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4. With an aid of a diagram describe the difference between Repeat Until and While... Do**(3mks)**

5. State three circumstances which may force an individual to acquire an impact printer instead of non-impact printer. **(3marks)**

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6. Sam prepared a five-page brochure of Maseno School using Ms-publisher. He wanted to insert a school badge in each page of the publication. State two methods he need to apply to execute this task. **(2marks)**

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7. State the difference between ones complement and twos complement **(2marks)**

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8. State the function of each of the following features of an email software.

(i) Spam **(1mark)**

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(ii) Trash **(1mark)**

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9. State four benefits of cloud storage in computing. **(4marks)**

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10. Describe the functions of the following disk management operations.

(a) Defragmentation **(1mark)**

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(b) Partitioning **(1mark)**

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11. Describe four ways through which an organization can minimize threats to its data integrity.
(4marks)

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12. Study the following three sections of code and name accordingly **(3marks)**

10101010110	MOV AL, 10	 Chemistry
01010101010	MOV DL, 25	 Biology
01000010101	MUL DL	 Physics
10100010110		

(a)

(b)

(c)

13. Identify how the operating system will label the following drives in case a computer has one floppy drive, one hard disk partition into two and a DVD. **(3marks)**

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14. Five students Jane, Beryl, Baroness, Linda, and Jael scored the following marks in mathematics: 45, 76, 34, 65 and 45. The marks were recorded in cell C3 to C7. Write down the most appropriate function that can be used to give those positions so that they can be awarded in descending order. **(3marks)**

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15. Using an example explain two main parts of an URL. **(2marks)**

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SECTION B: 60 MARKS

ANSWER QUESTION NUMBER 16 ANY OTHER THREE QUESTIONS FROM THIS

SECTION

16.

- (i) Define the following terms as used in programming. (3marks)

(a) Machine dependent

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(b) Bug

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(c) Syntax

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- (ii) Give two reasons to justify why most programmers prefer using compilers instead of interpreters. (2marks)

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- (iii) Describe two limitations of machine language. (2marks)

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(iv) Study the pseudo code below and design its equivalent flowchart (**8marks**)

Start

Count=1

For count =1 to 5 Do

Get Value 1 and Value 2

If Value 1 > Value2 Then

Maximum =Value1

Else

Maximum =Value2

Endif

Display Maximum

Count=Count+1

Stop

17.

- (i) The five-bit number 00101 is used to represent decimal number 5, show three methods of coding for negative 5. (3marks)
- (ii) Convert the binary number 101011110101101110001_2 into its
- (a) Octal equivalent (2marks)
 - (b) Hexadecimal (2marks)
- (iii) Convert 10101.010101_2 to decimal (3marks)
- (iv) Use 8-bit twos to subtract 35_{10} from 17_{10} (3marks)
- (v) Perform the following calculation (2marks)
- $110001_2 + 1111_2 - 11111_2$**

18.

- (i) Define the term desktop publishing. (2marks)
- (ii) List three nonprinting guides used in Desktop publishing (3marks)
- (iii) Explain the following features as used in DTP when manipulating graphical objects.
- (a) Fill (1mark)
 - (b) Stroke (1mark)
- (vi) Describe any three types of action queries. (3marks)
- (iv) Describe the function of the following features of a query grid.
- (a) Criteria (1mark)
 - (b) Show (1mark)
- (v) Mention three functions of database management software. (3marks)

19.

- (i) State three causes of system entropy. (3marks)
- (ii) Describe three main ways of maintaining a computer-based system. (3marks)
- (iii) State three advantages of using pilot changeover strategy in system development (3marks)
- (iv) State a stage in system development life cycle where each of the following activities are carried out.
- (a) Identifying shortcomings of the system (1mark)
 - (b) Prepare training manuals (1mark)

- (c) Calculating the cost benefit analysis (1mark)
- (v) State three outcomes that may result from using incorrect requirement specifications during system development. (3marks)

20.

- (a) Define the following terms.
- (i) Downloading (1mark)
- (ii) Uploading (1mark)
- (iii) Blog (1mark)
- (b) Briefly describe how internet platform have revolutionized business operations in the 21st century. (3marks)
- (c) Mention three emerging issues that make many people have a negative perception about internet. (3marks)
- (d) Explain the following terms as used in data processing.
- (i) Multiprocessing (1mark)
- (ii) Batch processing (1mark)
- (e) Explain the following types of errors.
- (i) Overflow error (1mark)
- (ii) Truncation error (1mark)
- (f) Mention two application areas of real processing (2mark)