



MASENO SCHOOL

Kenya Certificate of Secondary Education 2020

451/2-

COMPUTER STUDIES

-Paper 2

(PRACTICAL)

DEC. 2020

- 2 ½ hours

**451/2-Computer
Studies- P2**

Tuesday: 18/12/2020
Time 8:00am –Session

THE MASENO SCHOOL MOCK

Name Index Number.....

Candidate's Signature Date

Instructions to candidates

- Indicate your name and index number at the top right hand corner of each printout.
- Write your name and Index No on the CD/ Removable storage medium provided
- Write the Name and version of software used in each question attempted in the answer sheet provided
- Answer all the questions.
- All questions carry equal marks.
- Passwords **should not be used** while saving in the CD/Removable storage medium.
- All answers **must** be saved in your CD/Removable storage medium.
- Make a printout of the answers on the answer sheet.
- Arrange your printouts and tie/ staple them together
- Hand in all the printouts and the CD/Removable storage medium used.
- This paper consists of printed pages**
- Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing

This paper consists of 6 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and no questions are missing.

1. a) Type the following letter as it appears in a word processor. Use the mail merge feature to produce copies of the same letter to the persons whose details are given below.

(12marks)

MASENO SCHOOL,
P.O.BOX 120,
KISUMU.
8TH JULY 2020.

<NAME >, <ADMNO>,

<ADDRESS>

<TOWN>

Dear <NAME>

REF: 2020 KCSE RESULTS.

I am happy to inform you that the KCSE 2020 Examinations are out. Kindly arrange to visit our school on <Date to visit> at 9.00 a.m. in order to know the details. Remember to carry your original KCPE certificate and examination registration card- bearing the index number.

Your's Sincerely,

Chief Principal

Data source (List of Candidates)

Name	Adm. No	Address	Town	Date to visit
Alem Cyril	178398	P.O.BOX 24	Nairobi	04/05/2020
Odaba Nobert Ian	178409	P.O.BOX 186	Mombasa	08/05/2020
Andrea M Kelvin	178719	P.O.BOX 48	Voi	24/03/08

Required:

- i) **Save** Main document as Main Doc (1mark)
- ii) **Save** Data source as Datasource (1mark)
- iii) **Change** the addresses and reference font size to 14pts (1mark)
- iv) **Underline** the reference (1mark)

- v) **Merge** the letter onto main document so as to produce copies for all the three candidates and save it as 'Results 2020' (6marks)
- vi) **Print** the letters (3marks)

b) Using a word processing package, type the document below exactly as it appears.

Answer the questions that follow.

RECURSION

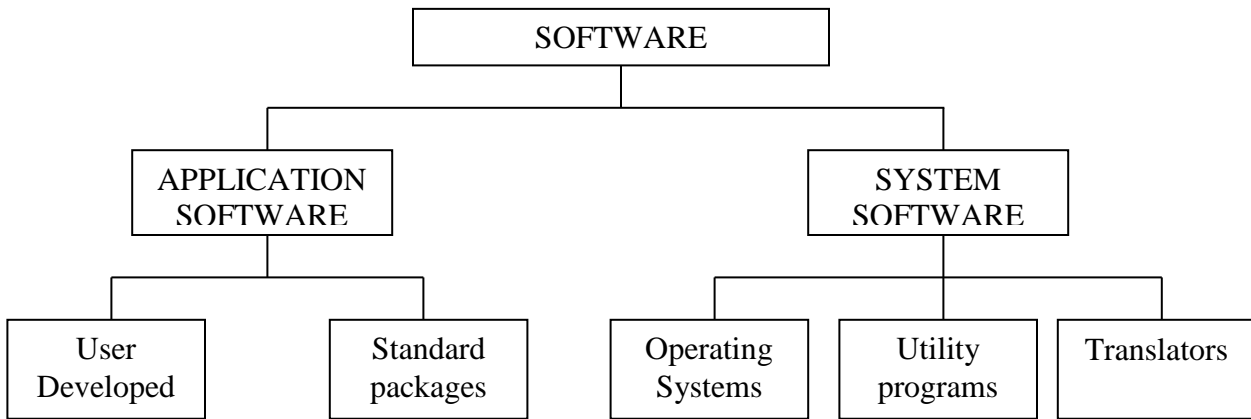
An object is said to be recursive if it partially consists (or is defined in terms) of itself. Recursion is encountered not only in mathematics, but also in daily life. Who hasn't seen an advertising picture which contains itself?

Recursion is a particularly powerful means in mathematical definitions. A few familiar examples are those of natural numbers, tree structures and of certain functions.

- (a). Natural numbers
 - (i). 1 is a natural number.
 - (ii). the successor of a natural number is a natural number.
- (b). Tree structures, e.g., \emptyset is a tree (called the empty tree).
- (c). The factorial function $n!$ (for non-negative integers).
 - (i). $0! = 1$.
 - (ii). If $n > 0$, then $n! = n \cdot (n - 1)!$.
 - (iii). $(x + 8)^n = \sum_{k=0}^n \binom{n}{k} x^k a^{n-k}$

The power of recursion evidently lies in the possibility of defining an infinite set of objects by a finite statement. In the same manner, an infinite number of computations can be described by a finite recursive program, even if this program contains no explicit repetitions. Recursive algorithms however are primarily appropriate when the problem to be solved or the function to be computed or the data structure to be processed is already defined in recursive terms.

STRUCTURE DIAGRAM



The above structure describes the software breakdown. The information can also be presented using a table as shown below:

Software	System software	Translators
		Utility programs
		Operating systems
	Application software	User developed
		Standard packages

(12 marks)

b) Apply the following formats to the title “RECURSION”

Capitalization - Uppercase

Alignment - Centered

Appearance - Bold

Font type - Arial Black

Size - 18

Underline - Single

(2 marks)

c) Convert the paragraph starting from “The power of recursion” to two columns, and justify them.

(3 marks)

d) Apply borders on the table as shown.

(1 marks)

e) Put a header and a footer. The header should read ‘Learning word’ while the footer should appear as © followed by your first name.

(2 marks)

f) Group the structure diagram s one object

(3marks)

g) Save the entire document as ***Recursion*** and in a compact disk.

(2 marks)

2. (a) Create a new workbook and name it as *Form Four Computer Results*. (1mark)

	A	B	C	D	E	F	G	H	I	J	K
1	Name	Class	Adm. No:	CAT 1	CAT 2	CAT 3	Total	Average	Class Position	Remark	
2	Yatch Benard	G	177984	80	70	59					
3	Omogi Jeffrey	W	177896	75	55	72					
4	Odaba Nobert	G	178092	86	59	75					
5	Glen Ochieng	G	177460	80	79	70					
6	Gregory Omondi	W	177892	76	75	80					
7	Tare Bill	G	177800	38	48	25					
8	Kuria Kevin	W	178490	37	51	29					
9	Andy Owiny	W	178184	30	86	75					
10	Hezron David	G	178082	25	27	20					
11	NyagakaDerrick	G	178083	30	25	25					
12	Ogoti Peter	W	178047	39	24	25					
13											
14											

(b) Design the table as it is and enter the following data in sheet I (12marks)

(c) Rename the sheet as Term one results. (1mark)

(d) Using *Formula* and **NOT Function** Find:

i) Totals (2marks)

ii) Average (2marks)

(e) Use the *IF function* to award remarks as follow (3marks)

- A student whose average is above or equals 65 is given “Excellent”
- An average of 55 or above but less than 65 award “average work”
- An average less than 55 award “work below average”

i) Award position to student basing on the average scored. (3marks)

ii) On the last rows enter formulas to count students from both classes (2marks)

(f) Sort the students list by class position in ascending order. (2marks)

(g) Copy sheet one and rename it as *worksheet data management* using the subtotal function, find the subtotal and Grand totals of the two classes in terms of **CAT TOTAL**. (8marks)

i) Copy the entire worksheet onto sheet 2 and rename it “lower group” (2marks)

ii) Filter “Lower group” sheet to display students from “E” class and whose average score is below 50. (4marks)

- (h) (i) Draw a 3D clustered bar graph to display the following information. (3marks)
- The three cats
 - Names
 - Title as **“TERM ONE COMPUTER RESULTS”**
- i) Place the legend at the bottom of the graph (1mark)
- ii) Save the chart on a new sheet and name it graphical analysis (1mark)
- (j) Print:
- i) The filtered lower group (1mark)
 - ii) The chart (1mark)
 - iii) Term one results sheet (1mark)

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