

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

Name: Index No.....

School: Candidate's sign.:.....

Date:

Computer Studies

Paper 1(Theory)

2 ½ hours

LARI DISTRICT 2013 MOCKS

INSTRUCTIONS TO CANDIDATES:

- Write **your Name** and **Index Number** in the spaces provided at the top of this page.
- **Sign** and **write** the date of examination in the spaces provided above
- This paper consists of two section **A** and **B**
- Answer question **16** and **any other three questions** from section **B**
- Candidates may be **penalized** for not following the instructions in this paper

For Examiner's Use only.

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1-15	40	
B	16	15	
	17	15	
	18	15	
	19	15	
	20	15	
Total score		100	

SECTION A: 40MARKS

Answer all questions in the spaces provided.

1. Explain the following input/ output terms as used in computer systems. Give an

example for each

(1 mark)

(a) Read

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.....

(b) Write

(1 mark)

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2. (a) What is virtual reality?

(1mark)

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(b) State four components of sensory devices used in virtual reality.

(2marks)

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3. (a)What is meant by Data Communication?

(1 mark)

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(b)List six examples of data communication equipment

(3 marks)

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4. Mr. Otieno, a French teacher used speech method to store students oral answers to an exam into a computer

(a) What is a speech input? (1 mark)

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(b) State one disadvantages of using this method of data input (1 mark)

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5. Describe three electrical safety precaution rules that should be observed in a computer room. (3marks)

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6. Give the name of CPU registers used to perform the following:
a) Store the address of the next instruction to be executed (1marks)

.....

b) Stores instructions currently being executed (1 mark)

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7. Kimani was instructed by the teacher, while typing a Microsoft Word document, to replace all the occurrences of the word Ms with Microsoft. Highlight the steps to do this

(3 marks)

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8. List two examples of third generation languages and state their most appropriate application.

(2marks)

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9. Describe the following terms

a) Web portal

(1mark)

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b) Blog.

(1mark)

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10. (a) Define the term program documentation

(1mark)

Your school has decided to replace its library control system. The current system was implemented ten years ago but has restricted reporting facilities and has a text-based interface. The school intends to replace the old system with a new computerized system, and is now considering both ‘Parallel running’ and “direct changeover”.

(b) Briefly explain the terms parallel running and direct changeover as used in system implementation.

(2marks)

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11. Describe the following types of database models as used in database design:

Hierarchical database: (2marks)

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Network database: (2marks)

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12. Explain one reason why parallel cables are faster than serial cables in data transmission. (2marks)

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13. Differentiate between Computer Aided Teaching and Computer Aided Learning.. (2marks)

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14. Give three methods that are used to transform an object in DTP (3marks)

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15. What is the difference between object linking and embedding? (2marks)

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SECTION B (60MKS)

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

16. (a) Explain three error detecting methods in program development (3marks)

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(b) The gross salary of employees of Mutson Chemist is based on the Basic and additional benefits. Employees with more than 10 year's experience get an additional pay of 10% of their basic salary. Bonuses are given as per employees' sales of the month as:

>200,000	15%
100,000 – 200,000	10%
Below 100,000	5%

Draw a flowchart for the program that will calculate Gross salary and output each employee's Basic salary, gross salary and all benefits.

(15 marks)

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17. (i) list three advantages of using computer Aided Design

(3marks)

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(ii) Simulation is one of the application areas of computers. What is meant by the term simulation?

(1mark)

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(b) Explain three advantages of computer based simulation.

(6marks)

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(iii) Differentiate between a software engineer and a computer engineer

(2marks)

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(v) Name three responsibilities that are carried out by a web administrator

(3marks)

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18. Study the worksheet below and answer the questions that follow:

	A	B	C	D	E	F
1						
2	AMSONS AGENCIES					
3	PRODUCT	REGION 1	REGION 2	REGION 3	REGION 4	TOTAL Sale
4	Rexona	3400	3,700	4000	4100	
5	Lifebuoy	2500	2600	2100	2500	
6	Omo	6000	6100	6300	1600	
7	Ushindi	1200	1500	1400	6400	
8	Carmel	7000	6900	7200	8000	
9	Total					
10	Maximum					
11	Average					

(a) (i) Write functions that can be entered to get total, maximum, and average of each region. (3 marks)

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ii) Write down the function that returns the number of sales in the four regions whose value is greater than or equal to 2000. (1 mark)

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iii) The function = sum (B4:E4) is entered at F5 and then copied to F8. Write down the function as it appears in the destination cell. (2marks)

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(b) (i) What is a chart wizard in spreadsheets? (1mark)

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.....

(c) State the use of:

i) A line graph (1mark)

.....

ii) A pie chart (1mark)

.....

(d) List four formatting techniques used in ms excel (2 marks)

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(e) Explain the following terms as used in spreadsheets.

i) Count () (1mark)

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ii) Round () (1mark)

.....

iii) Average () (1mark)

.....

iv) Now () (1mark)

.....

19. a) Write the following acronyms in full

i) EBCDIC (1 mark)

.....
ii) ASCII

(1 mark)

.....
iii) COBOL

(1 mark)

.....
b) Explain why computers use binary numbers in data representation

(2 marks)

.....
c) convert the following values to the stated number system

i) 20.2_{16} to decimal

(2marks)

ii) 7.125_{10} to binary

(2marks)

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(d) Perform the following Binary arithmetic:

i) $11100111_2 + 00101110_2$

(1mark)

ii) $10101_2 - 110_2$

(1mark)

(e) Use Two's complement to subtract 101 from 1000:

(2marks)

(f) Convert 57.4_{10} to its Octal equivalent

(2marks)

20. (a) What is a transmission media?

(1mark)

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(b) List two types of transmission media

(2marks)

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(c) Distinguish between a Hub and a switch.

(2marks)

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(d) With help of a well labelled diagram, describe the fibre optic cable

(5marks)

(e) List three differences between WAN and LAN

(3 marks)

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(f) Distinguish between physical topology and logical topology as used in Networking
(2marks)

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