

MARANDA HIGH SCHOOL

Kenya Certificate of Secondary Education

FORM FOUR EXAMINATION -2024

CODE451/1 SUBJECT: COMPUTER STUDIES Paper 1

March– TIME $2\frac{1}{2}$ Hours

Name:Adm No:

Class:Candidate's Signature:Date:/03/2024.

INSTRUCTION TO CANDIDATES

- Write your name and admission number in the spaces provided above
- This paper consists of **Two** sections A and B
- Answer **ALL** questions in section A
- Answer question 16 and any other **THREE** questions from section B
- All answers should be written in the spaces provided on the question paper

FOR EXAMINER'S USE ONLY

SECTION	QUESTIONS	CANDIDATE'S SCORE
A	1 -15	
B	16	
	17	
	18	
	19	
	20	
	TOTAL SCORE	

SECTION A: 40 MARKS**Answer all the questions in this Section**

1. State two objectives of normalization in Databases

(2marks)

2. Give three qualities of a good system analyst

(3mark)

3. Explain how data in a computer system can be secured using

(2marks)

(i) Security monitors

(ii) Biometric systems

4.

(i) Name two inputs devices that may be used as output devices

(2marks)

(ii) Give two limitations of voice input devices

(2marks)

5. Why is fibre optic more secure than Twisted pair and coaxial cables

(1mark)

6. State the function of the following features of a DTP publication window

(i) Pasteboard

(2marks)

(ii) Master page

(2marks)

7. Mention two effects of shutting down a computer using the wrong procedure

(2marks)

8. Levine is a System Analyst working with Victoria International Agencies. Levine was requested to develop a new information system to replace the current system in a stakeholder's meeting chaired by the General Manager. Give three reasons to justify why the organization is in need of a new system yet there is one in place

(3marks)

9. Mention three disadvantages of GUI based operating systems

(3marks)

10. Mention three ICT related courses offered at undergraduate levels in Kenyan Universities

(3marks)

11. Computer network technicians prefer to use command line based Operating systems when configuring networks. State three reasons for the preference

(3marks)

12. Explain the following limitations of Networking

(a) Over reliance

(2marks)

(b) Data security

(2marks)

13. Give two reasons for extensive use of Electronic Fund Transfer in modern society

(2marks)

14. State two ways of solving printing problem like lack of two way communication (2marks)

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15. Describe two challenges associated with the use of internet services like blogs, social media networks and instant messaging (2marks)

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SECTION B: 60 MARKS

Answer question number 16 any other three questions in this section

16.

(i) What is test data as used in programming environment (2marks)

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(ii) State three ways employed by computer programmers to make the program code easier to understand and follow (3marks)

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(iii) Describe a situation where a loop would be useful when writing a program code (2marks)

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(iv) Study the pseudo code below and use it draw a flow chart that will represent in all aspects (8marks)

1. Start
2. Count =1
3. Average =0
4. For Count =1 to 5 Do
5. Enter Mark1, Mark 2, Mark 3, Mark 4
6. Get the sum
7. Compute Average
8. Is average greater than or equal 50
9. Print Pass
10. Else
11. Output Fail
12. Average =average +Average
13. Count=count +1
14. Endfor
15. Mean score=Average/count
16. Stop

17.

(i) Perform the following number system conversion

(a) 19.1875_{10} to Binary

(2marks)

(b) AB_{16} to Octal

(2marks)

(ii) Perform the twos complement on $13_{10} - 23_{10}$, leaving your answer in decimal number system

(4marks)

(iii) Describe three challenges affecting electronic information processing

(3marks)

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(iv) Most organizations today are migrating from manual file system to computerized filing system so as to have a competitive advantages in discharging their functions. State four advantages of adopting this innovation

(4marks)

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18.

- (i) Give four command buttons from Picture tools used to make an image more visually appealing (4marks)

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- (ii) List four types of mail merge documents (4marks)

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- (iii) Briefly describe the following features of Microsoft Excel screen layout

(a) Formula bar

(2marks)

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(b) Name Box

(2marks)

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- (iv) Describe three data management features supported by Microsoft Excel

(3marks)

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19.

(i) Mention three functions of a form in a database

(3marks)

(ii) Use an example to explain the following data types as used in DBMS

(a) Calculated

(2marks)

(b) Yes/No

(2marks)

(iii) Describe the types of relationships depicted by the diagram below

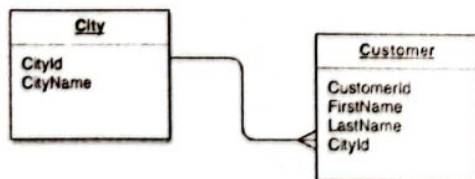
(a)

(2marks)

People		Drivers Licenses	
ID	Name	UserID	Number
1	Alice	1	F25532
2	Bob	2	S43212
3	Cathy	3	B98364

(b)

(2marks)



(iv) The table below is an extract from a database table use it to answer the questions that follows

Product Code	Product Name	Date of Birth	Unit cost	Quantity	Total
01001101	Maize	02/03/2002	2000	10	20000
01223030	Millet	12/12/2002	1000	20	20000
10239345	Wallet	03/09/2005	100	10	1000
19019001	Sweet	09/09/2006	1000	5	5000

(a) Write an input mask that will display the product names as represented in the table (2marks)

(b) Set a validation rule in the date of Birth column to (2marks)

- Restrict entries of future dates

- Accept year of Birth between 2002 and 2006