



ZERAKI ACHIEVERS EXAMINATION 13.0
Kenya Certificate of Secondary Education
FORM FOUR EXAMINATION -2024
CODE451/1 SUBJECT: COMPUTER STUDIES

Paper 1

JULY– TIME $2\frac{1}{2}$ Hours

Name: **Adm No:**

Class: **Candidate's Signature:** **Date:**/07/2024.

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. Give three reasons to justify why portable computers are gaining popularity in the current society. **(3marks)**

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2. State three input devices used in a smartphone. **(3mark)**

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3. A vehicle assembly company has introduced robots to replace the human workforce. Describe three effects this would have on the work force. **(3marks)**

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4. Explain how a library system facilitates smooth running of library services. **(2marks)**

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5. Give three possible reasons for extinction of Dot Matrix printers in the market today. **(2marks)**

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6. State two ways of manipulating text in a printable area of a publication. **(2marks)**

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7. James is pursuing Bachelors of Computer Science at University of Yogona in China, he is supposed to graduate at the end of this year and then come back to Kenya to seek for employment Name any three career opportunities in the field of ICT that James may take up after graduation.

(3marks)

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8. State three factors to consider when selecting a transmission media. **(3marks)**

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9. Describe two way of resolving hanging in a computer. **(2marks)**

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10. Multinational Company handles a lot of data and also collaborate with other companies all over the World and therefore data integrity must be maintained all the times. Describe three ways employed by this company to minimize threats to its data. **(3marks)**

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11. Describe the purposes of a frame as used in DTP **(2marks)**

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12. Use a diagram to describe the following network topologies **(2marks)**
- (a) Hybrid

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- (b) Mesh **(2marks)**

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13. State two uses of the task manager **(2marks)**

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14. Describe each of the following Validation checks as used in data processing. **(2marks)**
(i) Format check

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- (ii) Presence digit

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15. Describe three technological platforms used by Kenyan Secondary students to collaborate with their peers in Canada, US and UK. **(3marks)**

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SECTION B: 60 MARKS

Answer question number 16 any other three questions in this section

16.

- (i) Name two design tools that a programmer require when carrying out dry running. **(2marks)**

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- (ii) Mention four characteristics of a Machine language. **(4marks)**

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- (iii) What is internal documentation with regard to programming? **(2marks)**

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- (iv) A company's workers travel to work either by public or by private mean. All workers are paid a travel allowance of Kshs.200, but those using private means are paid an additional Kshs. 100. Draw a flowchart that will determine workers travel allowance. **(7marks)**

17.

(i) State the stage in systems development when the activities listed below are performed **(3marks)**

(a) The system analyst perform system audit

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(b) Modification of data file formats

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(c) Writing codes for the system

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(ii) State two reasons to justify why users must be trained thoroughly during system implementation **(2marks)**

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(iii) Briefly describe the following types of system maintenances

(a) Adaptive **(2marks)**

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(b) Perfective **(2marks)**

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(iv) Give three reasons why Word processor is one of the most common application of many computer user. **(3marks)**

(v) State three ways of creating a table in Ms word.

(3marks)

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18.

(i) Convert

(a) 376_8 to Hexadecimal

(2marks)

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(b) $34\frac{12}{32}$ base 10 to Binary

(2marks)

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(ii) Perform the following binary arithmetic giving the answer in decimal notation.

(c) $10110.0110_2 + 0101.01_2$

(2marks)

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(d) $1001.1001_2 - 111.100_2$

(2marks)

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(iii) Study the spreadsheet below and use it to answer questions that follow.

	A	B	C	D	E	F	G	H
1	Name of the car	Year of Manufacture	Fuel Type	State	No Sold	Price	Total	Remark
2	Mazda	2017	Diesel	New	20	2000000		
3	Honda CRV	2018	Diesel	Used	34	1800000		
4	Lexus	2015	Petrol	Used	28	3700000		
5	Toyota Premio	2016	Diesel	New	10	1000000		
6	Nissan Xtrail	2017	Petrol	New	18	1500000		
7	Volkswagen	2019	Diesel	Used	34	2500000		
8	Audi	2020	Diesel	Used	50	1800000		

(a) Give a formula that will compute total sales from Audi. **(2marks)**

(b) Write a function that can be keyed in cell B9 to calculate the total number of cars sold that consume Diesel. **(2marks)**

(c) Write a function that can be entered in cell H2 and copied down the column will display the texts as shown the table below. **(3marks)**

State	Remark
New	Automatic
Used	Manual

19.

(i) Briefly describe three functions of a query as used in database.

(3marks)

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(ii)

(a) What is a primary key as used in database.

(2marks)

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(b) State two functions of a primary key field.

(2marks)

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(iii) A student created a relationship between two tables then entered data in the respective tables. He was unable to run the queries because of the Type Mismatch error

(a) State the cause of this error

(1mark)

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(b) State how this error can be corrected

(2marks)

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(iv) What is telecommuting

(2marks)

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(v) Give three reasons to justify why telecommuting is gaining popularity in the modern society.

(3marks)

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20.

(a) Name two example of security monitors used to control unauthorized access.

(2marks)

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(b) State three way in which hardware failure is a threat to data security.

(3marks)

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(c) Alteration is illegal changing of data and information. This is one of the computer crimes common in the 21st Century. Describe three ways employed by organizations to curb this vice.

(3marks)

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(d) Malcom is an employee of Kijambo LTD whose URL is <http://www.kijambo.co.ke> .All employees were directed by the manager to create email addresses hosted in the company website. State how Malcom email address will look like.

(2marks)

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- (e) A web browser have a navigation toolbar fitted with a number of command buttons. State the functions of each button of the navigation toolbar listed below. **(2marks)**

(i) History

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(ii) Home

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- (f) Highlight three advantages of email services over postal services **(3marks)**

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