

Term 2 - 2022  
COMPUTER STUDIES  
(QUESTION PAPER I )  
FORM FOUR

Name: ..... Adm No: .....  
School: ..... Class: .....  
Signature: ..... Date: .....

**INSTRUCTION TO CANDIDATES**

- Write your name and index 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	
	<b>TOTAL SCORE</b>	

**SECTION A (40 MARKS)****Answer ALL the questions in SECTION**

1. Mention two devices that can connected to the computer via HDMI cable (2marks)

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2. State three ways in which ICT can be used to enhance customer service delivery in a supermarket (3marks)

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3. Describe two roles of a Web designer (2marks)

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4. Mr. Kamau is a teacher at Chianda High School used Ms-Excel to process the marks obtained by his student during the term. The table below shows the details entered in the Ms-Excel worksheet

	A	B	C	D	E	F	G	H	I
1	Name	CAT1	CAT2	CAT TOTAL	EXAM	TOTAL MARKS	POSITION	GRADE	REMARK
2	Mark Jama	14	06	20	56	76	1		
3	Caleb Wekeza	13	08	21	34	55	6		
4	Kanini Mulue	10	04	14	59	73	3		
5	Justine Melanie	11	07	18	57	75	2		
6	Julia Wahome	06	09	15	48	63	5		
7	Austin Kilome	08	07	15	50	65	4		

Hints

**CAT1 is out 15, CAT2 is out 15 and Exam is out 70**

- (a) Give the formula used to calculate the Total Marks for Julia Wahome (1mark)

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- (b) Write a function that give each student his position in class based on the performance (2marks)

(c) Write a logical function that will display the following remarks in column I **(2marks)**

<b>Total Marks</b>	<b>Remark</b>
<b>0 - 49</b>	<b>Fail</b>
<b>50 - 59</b>	<b>Above Average</b>
<b>60 - 69</b>	<b>Fair</b>
<b>70 - 79</b>	<b>Good</b>
<b>80 - 100</b>	<b>Excellent</b>

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5. Give two reasons to justify why SATA cables are used in modern computers to connect the hard disk to the motherboard **(2marks)**

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6. Give three file systems supported by windows operating system **(3marks)**

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7. Describe the use of the following keys found on a standard keyboard **(2marks)**

(a) Esc

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(b) Prt sc

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8. Explain the following terms with references to algorithm

(a) Definiteness **(2marks)**

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(b) Finiteness **(2marks)**

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9. Mention two ICT related courses offered in Kenyan universities at undergraduate level **(2marks)**

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10. What is flaming **(2marks)**

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11. A computer operator was working with a computer using windows operating system. After sometimes he started experiencing the following problems

- Abnormal restarting
- Computer failing to load the operating system
- Computer hangs
- Computer displaying Fatal Exception error on the screen

State three possible causes of the problems mentioned above **(3marks)**

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12. Identify two limitations of traditional approach to system development **(2marks)**

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13. Use flowchart to demonstrate how IF THEN and REPEAT..... UNTIL can be implemented **(2marks)**

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14. State three functions of Repeater stations in data communication **(3marks)**

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15. Describe three layout guides available in DTP that assist a user to place an object in a preferred position **(3marks)**

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**SECTION B (60 MARKS)**

16.

(a) State three features of a compiler **(3marks)**

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(b) When writing a computer program programmers are always advised to use approaches and techniques that makes the program easy to follow and maintain. List four ways in which a programmer can make program code easy to follow **(4marks)**

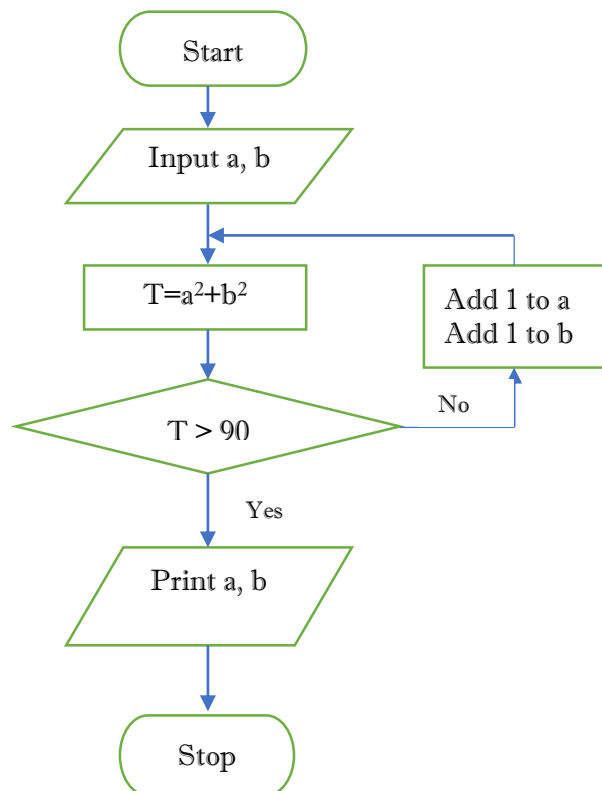
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(c) Study the flowchart below and use it to answer the questions that follow



- (i) Given that the user keyed in 3 as the value of a and 1 as the value of b get the final output of the flowchart **(3marks)**

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- (ii) Use a pseudo code to represent the flowchart in (c) **(5marks )**

17.

(a) Briefly describe the three main coding schemes **(3marks)**


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(b) Convert the following numbers to binary number

(i) B2.AAH **(3marks)**


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(ii)  $\frac{13}{64}$  base 10 **(3marks)**


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(c) The table below was created using Ms-Access use it to answer the questions that follow

Table Name: Product

Product ID	Product Name	Unit Cost	Quantity	Total
P00101	Milk	120	34	4080
P00201	Bread	100	56	5600
P00301	Beans	150	45	6750

(i) State the most appropriate data type for Product ID and Total **(2marks)**


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(ii) Suggest how you would set the input mask for the Product Name so that the data entered in that field appear the way they are in the table **(2marks)**


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- (iii) Represent the dynaset shown below in a SQL form given that the table Name is product **(2marks)**

Product ID	Product Name	Unit Cost	Quantity	Total
P00101	Milk	120	34	4080

18.

- (a) Describe four services available in the internet that support communication only **(4marks)**

- (b) Modern computing have embraced the use of drop box, google drive and OneDrive. These platforms are hosted by the internet and many computer users prefer backing up their data using these facilities. Give three reasons to justify this phenomenon **(3marks)**

- (c) Janetitle a computer student from Maranda High school launched the browser to access the internet , the browser displayed an error message Server Not Found on the screen this didn't allow Janetitle to access the internet. State three possible causes of this anomaly **(3marks)**

- (d) Briefly describe the following features of word processor **(2marks)**

(i) Subscript

(ii) Drop cap



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(e) State two arithmetic operation that can be performed on a row of a numeric data in a word processor table **(1mak)**

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(f) In each case of (e) above give the expression used **(2marks)**

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19.

(a) Enumerate four breakthrough in health care instigated by ICT **(4marks)**

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(b) Mention four application areas of Artificial Intelligence **(3marks)**

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(c) List three scanning devices available at Electronic Point Sale Terminal **(3marks)**

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(d) Describe two ways of preventing eavesdropping **(2marks)**

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- (e) System failure is considered as threat to data security. Describe three measures an organization should put in place to guard against system failure **(3marks)**
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20.

- (a) Identify modes of data communication represented in (i), (ii), (iii) and (iv) below **(4marks)**

(i) Principal Addressing students in assembly using public address system

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(ii) WhatsApp chat

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(iii) Phone conversation

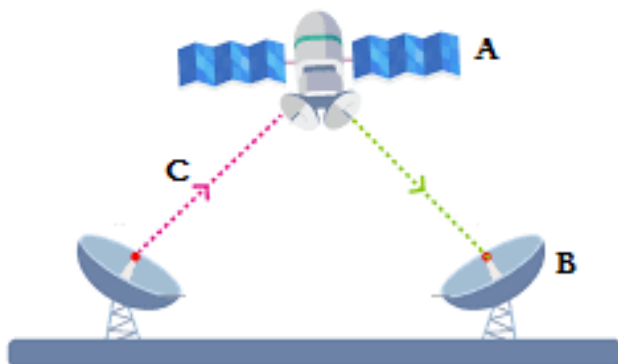
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(iv) Walkie talkie conversation

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- (b) List three challenges experienced by computer networks that are set up using twisted pair cables **(3marks)**
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- (c) Study the diagram below and use it to answer the questions that follow



(i) Identify the parts labelled A, B and C in the diagram above **(3marks)**

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(ii) State function of the part labelled A **(2marks)**

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(d) Name any three components of virtual reality **(3marks)**

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