

NYAHOKAKIRA CLUSTER TWO 2024

Kenya Certificate of Secondary Education

451/1

COMPUTER STUDIES

Paper 1

July 2024 – 2½ Hours

Name: Adm. No:

Stream..... School.....

Instructions to Candidates

- (a) Write your **name, stream and admission number** in the spaces provide above.
 - (b) This paper consists of two sections: A and B.
 - (c) Answer **all** the questions in section A in the spaces provided.
 - (d) Answer question 16 (**Compulsory**) and any other **three** questions in section B.
 - (e) All answers should be written in the spaces provided in the question paper
 - (f) This paper consists of 13 printed pages.
 - (g) Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.
 - (h) Candidates should answer the questions in English.
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For Examiner's Use Only

SECTION	QUESTION	CANDIDATE SCORE
A	1-15	
B	16	
	17	
	18	
	19	
	20	
TOTAL SCORE		

Answer all the questions in this section (40 marks)

1. Describe the meaning of the following terms as used in computer studies: -

i). Booting (1 mark)

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ii). Live-ware (1 mark)

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2. (a) What are turnaround documents (1 mark)

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(b) Name any two data capture techniques that can make use of turnaround documents (2 marks)

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3. Headache, back and neck pain may result from the use of computers. State how each of them can be minimized (2 marks)

(a) Headache

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(b) Back & Neck Pain

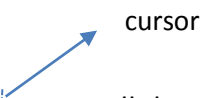
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4. Richard was advised by his teacher to partition the hard disk of his laptop computer. State **two** reasons that necessitated this. (2 marks)

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5. Use the following sentence to answer the questions that follow:

Getting an 'A' in KCSE starts all the way from form 1. A dedicated student is one who loves books more than kdf...



State what will happen when the following keyboard keys are pressed by referring to the current cursor position:

a. Home (½ mark)

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b. Delete (½ mark)

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6. Differentiate between word wrap and text wrap as used in word processing (2 marks)

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7. State three reasons why it is important to define data types of fields in a database correctly. (3 marks)

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8. Using examples describe the meaning of the following terms

i) Absolute Cell Reference (1 marks)

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ii) Relative Cell Reference (1 marks)

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9. Differentiate between tracking and kerning as used in desktop publishing. (2 marks)

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10. Data backup in every computerized organization is an important aspect of data security.

What is data backup (1 mark)

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11. State the type of error that would occur in data processing for each of the following Cases:

a. Entering the number 315 instead of 351. (1 mark)

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b. Entering the text “Kwys” instead of “Keys” (1 mark)

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12. Write the following abbreviations in full (2 marks)

i. BCD.....

ii. ASCII.....

13. Spencer limited, an agency company dealing with booking service intends to automate her activities. The company decided to outsource a system analyst to do the automation. They analyst decided to carry out a feasibility study.

i). Define the term feasibility study

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..... (2 marks)

14. Explain two drawbacks of using interviews as a method of data collection (2 marks)

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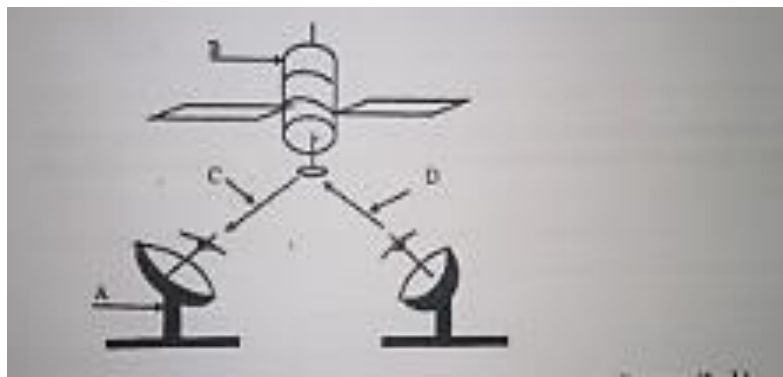
15. State two ways of minimizing threats to data integrity (2 marks)

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16. State three circumstances under which the use of wireless communication would be preferred in data communication. (3 marks)

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17. Study the diagram below and answer the questions that follow.



Name the communication media depicted in the above diagram. (4 mark)

Name the part labelled A, B, C and D

- A.....
- B.....
- C.....
- D.....

18. Describe three benefits of a doctor using an expert system to help diagnose a patient's illness. (3 marks)

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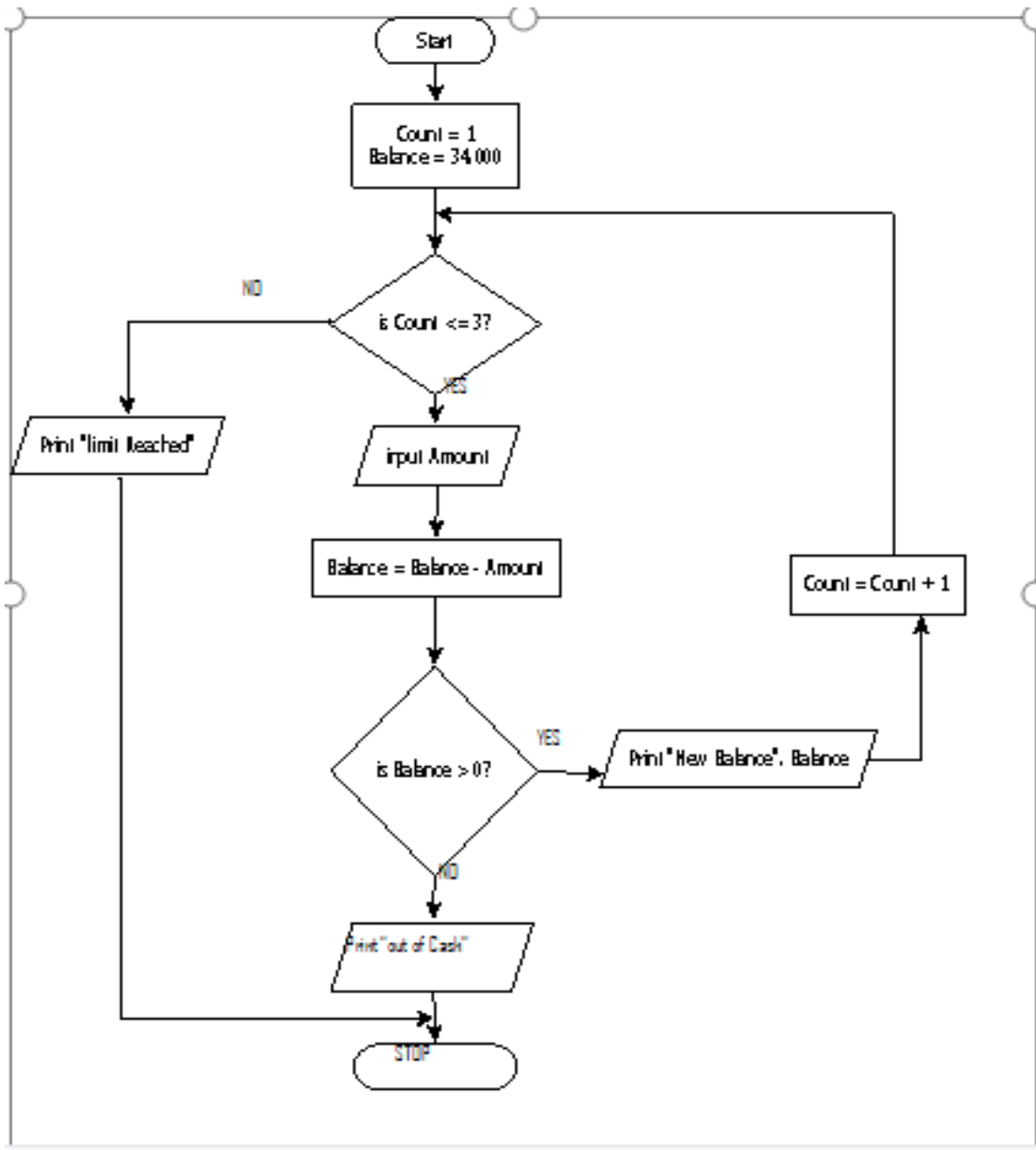
SECTION B (60 Marks)

Answer question **16** and any other **THREE** questions from this section in the spaces provided

16 (a) State three ways in which a programmer can make program code easy to follow
(3 marks)

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(b) Study the flowchart below and use it to answer the questions that follows;



- (i) State the output of the above program flowchart for the inputs given below (3 Marks)
Amount = 15,000, 14,000 and 23,000 respectively

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- (ii) State the purpose of the flowchart (1 Mark)

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- (iii) Write a pseudo code for the flowchart in question (16. c) above (8 Marks)

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17. Describe **three** advantages of fibre optic cables

(3 marks)

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b) State **four** disadvantages of computer networks

(4 marks)

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c) What is meant by the following computer network terms?

(4 marks)

i. Bandwidth

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ii. Attenuation

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iii. Half Duplex

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iv. Omni-directional

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iii). Describe any **four** communication devices used in networking.

(4 marks)

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18. Consider the MS Excel extract below.

	A	B	C	D	E	F	G	H
1	© 2019 KISII SCCHOOL EXAMS DEPT							
2	Name	Admno	Kis	Math	Eng	Total	Mean	Position
3	Rodney	18400	89	82	47			
4	Isaac	17981	88	58	55			
5	Pasaka	15343	65	77	77			
6	Ben	16000	58	84	56			
7	Zablon	17890	71	29	47			

a. Give the reference of the **active cell** in the worksheet extract above. (1 mark)

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b. Write down a function that can be used to get the mean mark for Zablon. (2 marks)

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c. Write down a function that can be used to extract the highest mark in Math. (2 marks)

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d. Kamau entered the formula = A5 + B5 + C5 + D5 + E5 in cell F5. What answer did the computer display and why? (2 marks)

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e. A student used a function to compute the total and mean scores for Rodney. He also changed the contents of the cell D3 after the computation of Rodney's mean and total. State any other **two** cells whose values should change automatically after the change of the D3 value. (2 marks)

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f. Differentiate between sorting and filtering data in spreadsheets. (2 marks)

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g. What is a chart wizard in spreadsheets? (1 mark)

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h. State the **three** components of a spreadsheet. (3 marks)

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19. (a) What is the binary equivalent of $23^{12}_{/32}$ base 10 (3 marks)

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(b) Convert 5ba2h to binary

(3 marks)

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(C) Using 8-bits twos complement subtract 19_{10} from 14_{10}

(3 marks)

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(d) Given that the left most digit is a sign bit work out the decimal equivalent of the following binary numbers

(3 marks)

(i) 00111010110_2

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(ii) 10100111010_2

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20. a) Define the term operating system (2 marks)

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b) One of the functions of the operating system is to enhance security of the software and data in a computer. Outline any **three** ways how an operating system enhances this (3 marks)

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c) Software piracy is on the increase in the software industry in Kenya. State any **three** ways of reducing this crime. (3 marks)

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d) Define the following software related terms:

i. Installation (1 mark)

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ii. Troubleshooting (1 mark)

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e) A form 3 student had created a folder by the name 'mywork' on the desktop of his laptop. when he tried to delete the folder it 'refused'. State **two** reasons for refusal to be delete (2 marks)

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f) Define the following file/folder terms:

i. Renaming (1 mark)

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ii. Saving (1 mark)

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iii. Copying (1 mark)

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