

# MOMALICHE JOINT EXAM

## TERM ONE 2021

451/1

COMPUTER STUDIES

FORM FOUR

TERM 1 2021

TIME: 2<sup>1</sup>/<sub>2</sub> HOURS

NAME..... ADM NO: ..... STRM: .....

### INSTRUCTIONS TO CANDIDATES

1. Write your Name, Admission number and Stream in the spaces provided above
2. Answer all questions in section A
3. In section B, answer question 16(compulsory) and any other three questions

### FOR EXAMINER'S USE ONLY

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

**SECTION A (40 MARKS)**

1. Give importance of having the following in computer laboratory (3mks)

(i) Standard furniture in the laboratory.

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(ii) Antiglare screen

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(iii) UPS

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2. Distinguish between ROM and RAM (2mks)

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3. Explain the following computer crimes (2mks)

(i) Fraud

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(ii) Alteration

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4. (a) Explain the following statements

(i) Firewalls (1mk)

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(ii) Data encryption (1mk)

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5. Differentiate between the following terms as used in word processing (3mks)

(a) Drop Cap and Case

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(b) Superscript and subscript

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(c) Indent and tab

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6. (a) A school librarian asked you for an expert advice on the printer to use. She wanted to know the difference between impact and non-impact printers and TWO examples of each.

What would be your advice?

Difference. (2mk)

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Examples

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7. Describe the following terms as used in internet

(a) Webpage (1mk)

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(b) Blog (1mk)

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(c) Hyperlinks (1mk)

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(d) Web portal (1mk)

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8. (a) Give four advantages of DTP over a word processor (2mks)

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(b) Differentiate between the following

(i) Kerning and tracking (2mk)

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(ii) Margins and column guides (2mks)

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9. Explain the term simulation (1mk)

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10. Differentiate between baseband and broadband signal as used in networking (2mks)

(a) Baseband signal

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(b) Broadband signal

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11. Explain how the operating system controls the following resources (3mks)

(i) Processor

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(ii) Main memory

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(iii) Input and output devices

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12. What is deadlock in reference to operating systems (2mks)

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13. (a) The most popular type of electronic data storage currently use magnetic disk storage such as hard disk or Winchester disk. Give two reasons as to why they are popular (2mks)

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(b) Outline two advantages of hard disk over floppy disk (2mks)

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14. State two advantages of using a barcode reader for data entry at a point of sale terminal (2 marks)

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15. Explain two ways of protecting data and information against unauthorized access (2mks)

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**SECTION B (60 Marks)**

**Answer question 16 (Compulsory) and any other three questions**

**SECTION B (60 MARKS)**

***Answer question 16 and any other three questions.***

16. (a) State any three differences between an Interpreter and a Compiler (3mks)

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(b) State the stage of program development in which (2mks)

(i) A flowchart would be drawn.

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(ii) The programmer would check whether the program does as required

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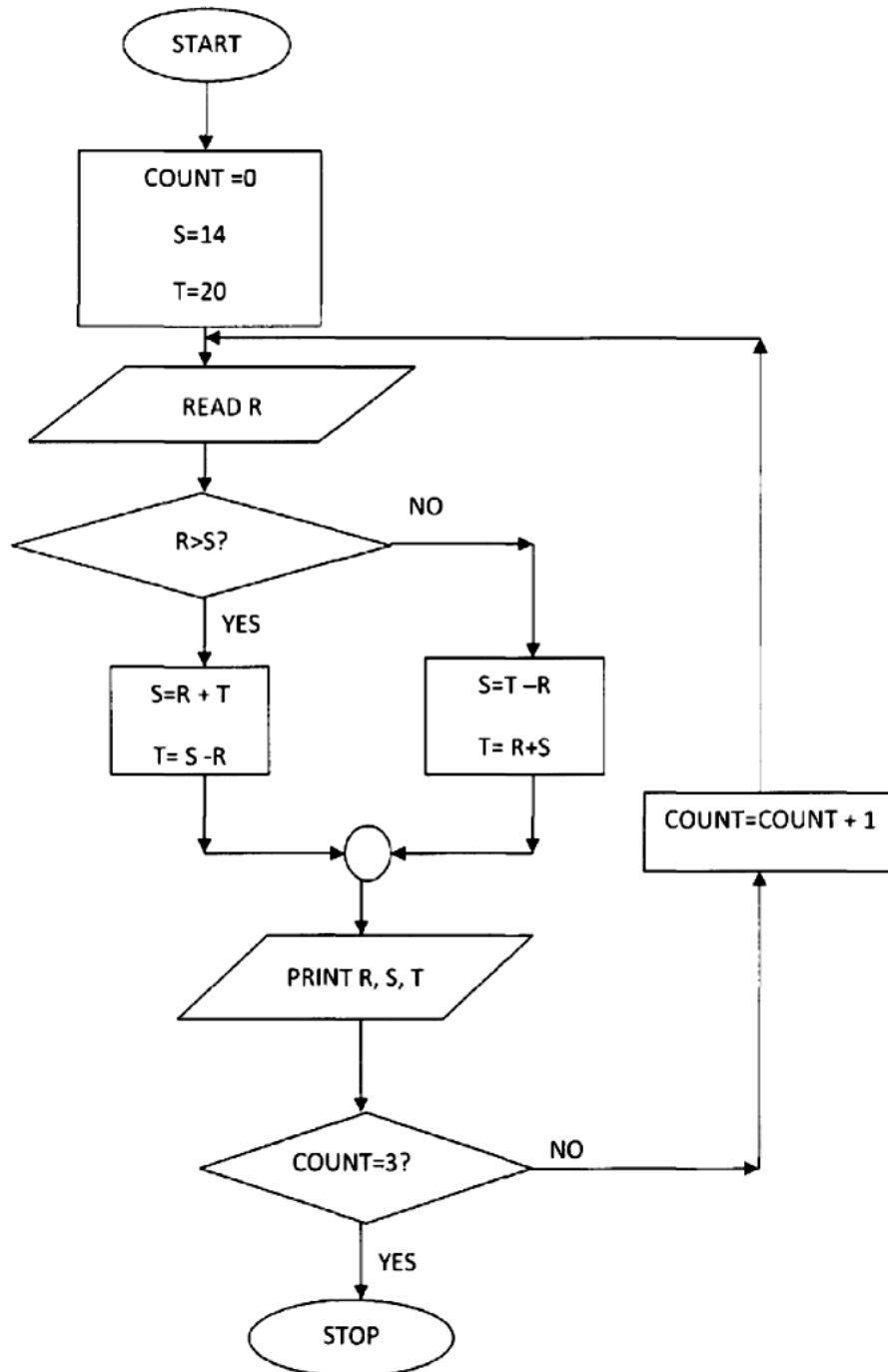
(iii) User guide would be written

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(iv) The requirement specification would be written

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



(i) What would be the output if the following values were input 40,20,15,1 (4mks)

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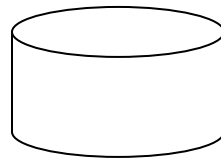
(ii) Write a pseudo code for the flowchart in question 16c) (6mks)

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17. a) Identify the following flow chart symbols (2 marks)



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b) **State and explain three** circumstances when observation method may be preferred during data collection in system development  
(6marks)

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c) **State two** ways of verifying data being entered into a computer system for processing  
(2 marks)

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d) A computer user entered the number 5.66894 and it displayed 5.66, He entered the number again for the second time and it displayed 5.67. **State** the types of errors that occurred in both instances.

(2 marks)

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e) **State three** specifications that should be set in the print dialog box when printing a document

(3 marks)

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18.a) **Explain two** ways in which hardware failure is a threat to data security

(4

marks)

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b) A retailer uses a spreadsheet program to calculate profits. The figure below shows the spreadsheet

	A	B	C	D	E	F
1	Items	Cost price	Selling Price	Profit	Items sold	Total Profit
2	Sugar	305	350	45	32	1440
3	Bread	100	120	20	45	900
4	Flour	200	220	20	32	640
5	Rice	107	130	23	89	2047

i) Which row contains labels only?  
(1 mark)

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ii) Write the formula that has been entered in:  
Cell F2

(2 marks)

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c) State two disadvantages of the flat file database model  
(2 marks)

(2 marks)

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d) State two reasons why table relationships are created during database design (2 marks)

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e) The principal of Molo Academy Boys keeps the following student details in a database: Name, Address, Town, Date of birth, Marks scored, Fees paid

i) **Name the most suitable** primary key in the database. Give a reason for your answer (1 mark)

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ii) **For each** item in the student details table above, indicate **the most appropriate** data type to be used in the database. (3 marks)

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19.(a) What is Virtual reality (2mks)

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(b) Explain the following interactive equipment used in virtual reality (2mks)

(i) Head gear

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(ii) Body suit

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(c)(i) What is Artificial Intelligence?  
(2mks)

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(ii) Explain three components of an experts system  
(6mks)

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(d) Most computerized security systems make use of Biometric analysis ,name three physical features of human beings that can be considered in this analysis  
(3mks)

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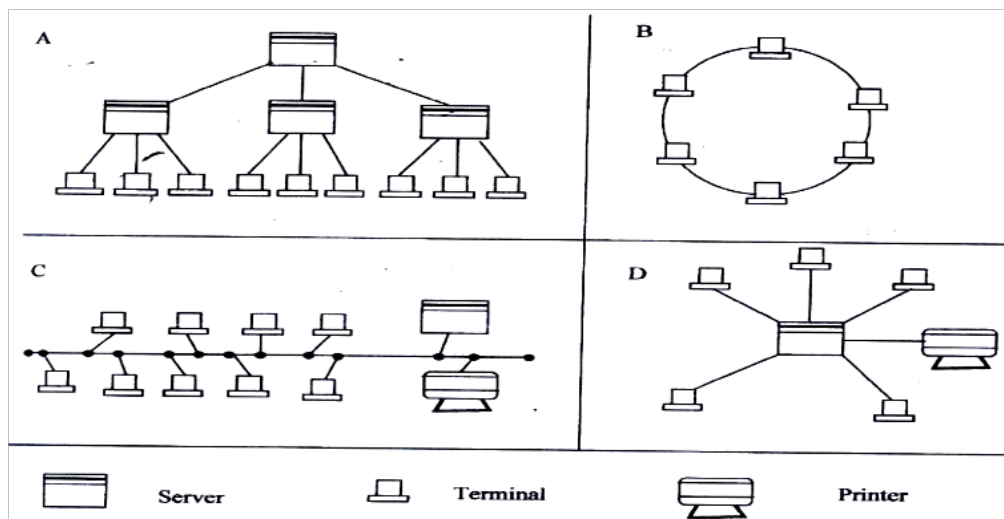
20. a) A computer technician found it necessary to disable a firewall when working on a computer system connected to a computer network. **State two** reasons that may have necessitated disabling of the firewall

(2 marks)

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 b) **State two** differences between infrared transmission and Bluetooth transmission (2 marks)

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The diagram below shows four common network topologies A, B, C and D.



i) **Name** the network topologies labeled A, B, C and D. (4marks)

A.....

B.....

C.....

D.....

ii) **State** the role of the device labeled "server" in topology A (1 mark)

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iii) **State two** problems associated with network topology B. (2 marks)

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d) **Explain** why the single mode fiber optic cable is preferred for long distance transmission (2marks)

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e) **State two** ways a networking operating system provides data security in a network (2marks)

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END

SUCCESS.