

NAME _____ ADM NO _____
 CLASS _____
 SIGNATURE _____

451/1
 COMPUTER STUDIES(Theory)
 FORM FOUR 2022
 END TERM 2 EXAMS
 2 ½ HOURS

MECS JOINT EVALUATION TEST
COMPUTER STUDIES PP1
FORM FOUR END TERM 2 EXAMINATION 2022

INSTRUCTIONS TO CANDIDATES

1. Write your name and Admission number 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)

Answer all the questions in this section.

- 1. Identify the transmission mode used when communicating with the devices listed below. (2marks)
 - (i) Public address system

(ii) Phone chat via WhatsApp

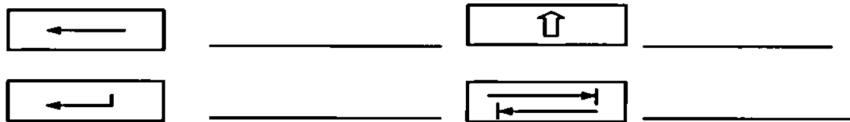
- 2. a) List **two** categories of system software (2marks)

b) A warranty is an agreement between the buyer and the seller. It spells out terms and conditions after selling a product in case of failure or malfunction. Describe any three basic requirements a good warranty should cover. (3 marks)

- 3. Beryl does not understand why computers are said to be Automatic at the same time they have No Intelligent Quotient (IQ) (2marks)

- 4. Vero a student from Nyamira Girls lives in a house with full internet access. She spends most of her time on phone and Desktop computer. State any three social issues associated with doing this. (3 marks)

- 5. The following are symbols of some keys on the keyboard. Name the keys represented by the symbols (2marks)





- 6. Give three reasons that might have necessitated the development of Second generation computers. (3 marks)

- 7. Millicent wrote a program but it did not behave as expected. Describe two types of errors that may hinder the program from running or run but give invalid results. (2marks)

8. Describe two password options that Ms-Word employ to protect its documents. (2marks)

9. Mention two limitations of using counterfeit software. (2marks)

10. Name the computer parts listed below. (2marks)

Diagram	 <p>Figure 1</p>	 <p>Figure 2</p>
Name		

11. Describe the following functions of the operating system. (3marks)

(i) Network Management

(ii) Security

(iii) Interrupt Handling

12. State three ways in which computer virus infection can be prevented other than through restricting the usage of removable storage media (3marks)

13.

(i) Define the term normalization.

(1 mark)

(ii) State a reason to justify why database administrators usually perform normalization when creating a database for an organization. (2marks)

14. Mention three factors to consider when choosing a file organization method. (3marks)

15. As Jayden was entering data into the computer, He typed byocott instead of boycott.

i. Identify the type of error made by Jayden (1 Mark)

ii. Other than using direct data entry devices, state two other methods Jayden can use to avoid the error (2 Marks)

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SECTION B (60 marks)

Answer questions 16 and any other three questions from this section.

16.

(a) Describe the following qualities of an algorithm. (2marks)

(i) Definiteness

(ii) Finiteness

b) Describe the three essential programming constructs which form the basis of structured programming

(3 marks)

c) State two advantages of low-level languages

(3 marks)

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d) The table below shows the monthly charges applicable to different amount of water consumed by clients in a particular town

Volume of Water consumed in m ³	Consumption in Kshs
0 – 10	200
10 - 20	350
20 – 30	500
Over 30	1000

In addition to the consumption, the amount of the water bill will consist of a standing charge of Kshs 200 and a sewerage fee equivalent to 20% of the consumption.

- (i) Write a pseudo code for a program that prompts a user to enter the volume of water consumed per month. The program then computes and output the amount of the water bill in a year.

(7 marks)

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17.

(i) The table below is an extract from a spreadsheet use it to answer the questions that follow

	A	B	C	D	E	F
1	Customer Number	Product Name	Quantity	Unit Cost	Total	Type Remark
2	145321	Malomalo	20	100	2000	Bronze
3	143561	Kisambo	40	200	8000	Silver
4	156784	Weeti	40	400	16000	Gold
5	123454	Wheat	20	50	1000	Bronze
6	453218	Nyozi	10	10	100	Bronze
	GRAND TOTAL				27100	

(a) Identify the Ms-Excel feature that is used in cell A1 and B1 to enable the texts appear the way they are. (1mark)

(b) Name the data type in cell E4 and F3. (2marks)

(c) Use absolute reference to represent a formula that is used to calculate total for wheat (2 marks)

(d) Suggest how named reference can be used to calculate the GRAND TOTAL. (3marks)

(e) Write a formula that will classify product type base on the total as shown in the table below. (2 marks)

Total	Type
0-5000	Bronze
5001-10000	Silver
10001 and Above	Gold

(ii) State the difference between Cc and Bcc. (2marks)

(iii) Mention three factors to consider when choosing an ISP. (3marks)

18.

(a) What is the binary equivalent of $12/32$ base 10. (4marks)

(b) What is the decimal equivalent of the number 1.0111_2 ? (3 marks)

c) Explain four control measures that can be taken to avoid unauthorized access to data in a Computer system or data. (4 marks)

d) List four career opportunities in the field of ICT. (2marks)

e) With reference to DTP describe the following terms. (2marks)

(i) Gutter

(ii) Stroke

19.

- (i) State two circumstances under which a system analyst may prefer to use questionnaire instead of observation during facts finding. (2marks)

- (ii) Mention three operational factors that a system analyst need to consider when sourcing for hardware and software to be used with the proposed system. (3marks)

- (iii) Describe two advantages of parallel changeover. (2marks)

- (iv) Name any two wireless communication devices (2Marks)

- v) Describe two factors to consider when choosing a transmission media. (2marks)

- vi) The Chairman IEBC has called upon a System Analyst to implement an electronic rating system. He intends to use voter's fingerprints, Identity cards and voter's cards as security measures to ensure free and fare elections. Recommend with reasons four input devices that they should use/buy. (4marks)

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20.

(i) The following records were entered in a database

Date	Class	Registration No
1/1/2007	East	1425-A
1/1/2008	North	1426-A
12/1/2008	North	1426-B

(a) Suggest a validation rule for date given that it should be not before 1/1/2006 (2marks)

(b) List the records that will be displayed after running the following criteria? (2marks)

(i) <>#1/1/2008ondate

1426-A on class

(c) Write the input mask for registration No (1mark)

(d) Choose the most appropriate data type for Date and Registration No (2marks)

Explain the following terms as used in Word Processing (3marks)

(i) Word Wrap

(ii) Orientation

(iii) Indenting

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

(3 marks)

g) State **two** major reasons why organizations are opting for telecommuting.

(2 marks)

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