

NAME..... DATE .....

INDEX NO..... SIGNATURE .....

451/1

COMPUTER STUDIES

PAPER 1

JUNE, 2022

TIME: 2½ HOURS

# SUKELLEMO JOINT PRE-MOCK EXAMINATION 2022

*Kenya Certificate of Secondary Education.*

451/1

COMPUTER STUDIES

PAPER 1

TIME: 2 HOURS 30 MINUTES.

### Instructions to Candidates

- Write your name and Index Number in the spaces provided.
- This paper consists of two sections.
- Answer **ALL** questions in **section A**
- Answer **Question 16** and other **THREE** questions in section B.
- All answers **MUST** be written in the spaces provided on this question paper.

Section	Question	Maximum Score	Actual Score
A	1 - 15	40	
B	16	15	
	17	15	
	18	15	
	19	15	
	20	15	
<b>TOTAL</b>		<b>100</b>	

**SECTION A (40 MARKS)**  
**ANSWER ALL QUESTIONS FROM THIS SECTION**

1. Explain two ways in which computer can be used in the following areas. (2mks)

a) Entertainment industries

.....  
.....

b) Banking

.....  
.....

2. Write the following abbreviations in full. (2mks)

a) POST

.....

b) SVGA

.....

3. Suggest how in future the computer may be made user-friendly for persons who are visually challenged. (1mk)

.....  
.....

4. Explain three advantages of an inkjet printer. (3mks)

.....  
.....  
.....  
.....

visit [www.freeksepaspapers.com](http://www.freeksepaspapers.com) to access more free exams

5. Odhiambo a computer student at Lenana High School had the following problems.(2mks)
- a) Headache
  - b) Backache

Give the likely cause of the above problems and give the likely solution for each problem.

.....

.....

.....

.....

.....

.....

.....

6. a) Highlight four factor to consider when choosing an input device. (2mks)

.....

.....

- b). State and explain **two** types of computer files (2 mks)

.....

.....

.....

.....

.....

7. Juma bought a computer with the following features.

- i. 4.0 GB primary storage
- ii. 500.0 GB SATT HDDC
- iii. Dual core processor
- iv. 19<sup>0</sup> TFT VDU

a) What do you understand by the term *dual core* computer? (1mk)

.....  
.....

8. Define a multimedia system and state two components of a multimedia system. (2mks)

.....  
.....  
.....  
.....

9. a) State the type of files which have the following file extensions and give an example for each (2mks)

i. .BAT

.....  
.....

ii. .XLS

.....  
.....

b) List four types of proof reading tools in a word process. (2mks)

.....  
.....  
.....  
.....  
.....

10. a) While Wekesa is editing a workbook data item, a *# VALUE! Error* occurred. Identify the cause of such error in the affected worksheet. (1mk)

.....  
.....  
.....

b) Distinguish between an embedded chart and a chart sheet. (2mks)

.....  
.....  
.....  
.....

11. State four importance of the internet to the society. (2mks)

.....  
.....  
.....  
.....  
.....

12. Draw a flowchart that can be used to find the area of a semi-circle. (4mks)

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

13. Define the following terms as used in desktop publishing (2mks)

- i. Master page

.....  
.....

ii. Gutter

.....  
.....

14. Use two complements to complete the value of Y in eight bit binary notation. (4mks)

$$96_{10} + Y_{10} = 124_{10}$$

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

15. a) Natural disaster can cause loss of data and programs. State two ways of ensuring that data and programs are not lost if a disaster strikes. (2mks)

.....  
.....  
.....

b) State two advantages of using robots in industries. (2mks)

.....  
.....  
.....  
.....

**Section B (60 marks)**

**Answer Question 16 and any other three from this section.**

16. a) State **three** functions of an assembler. (3mks)

.....  
.....  
.....  
.....

b) Highlight **three** characteristics of a good flowchart. (3mks)

.....  
.....  
.....  
.....  
.....

c) Give **two** examples of a *web scripting* languages. (2mks)

.....  
.....  
.....

visit [www.freekcsppapers.com](http://www.freekcsppapers.com) to access more free exams





b) Jane a form four student was advised to partition a hard disk for her computer. Explain two reasons that may have necessitated this. (4mks)

.....

.....

.....

.....

.....

.....

c) If one table in a database contains the fields: **EMPLOYEE – ID, LAST – NAME, FIRST – NAME** and **HIRE – DATE** and another contains the fields **DEPARTMENT, EMPLOYEE – ID** and **SALARY**, it is possible to establish a relationship between the two tables.

i. Name the type of such a database. (1mk)

.....

.....

ii. What type of relationship can be established between the tables? (1mk)

.....

.....

iii. Provide the most appropriate data types for each of the fields. (3mks)

.....

.....

.....

.....

.....

.....

.....

d) A publishing firm designed the following publication using a DTP software.

**SALE!! SALE!! SALE!!**

**COMPUTER SALES**

**10% OFF**

*All at 10% off*

**W**elcome to the exciting sale of:

- ✓ Laptops
- ✓ Desktops
- ✓ CD & DVD

i. Give two reasons why the firm prefer using DTP instead of Word Processors. (2mks)

.....

.....

.....

.....

ii. Identify four formatting features used in the designing the publication. (2mks)

.....

.....

.....

.....

.....

.....

visit [www.freekcepastpapers.com](http://www.freekcepastpapers.com) to access more free exams

18.a) i) Give any TWO ways of representing a negative number in computer system. (2 marks)

.....  
.....  
.....  
.....

ii) The following eight-bit pattern represents the two's complement of an integer: 110001001. What is the decimal equivalent? (2 marks)

.....  
.....  
.....  
.....  
.....  
.....

iii) Subtract the binary number 0011001 from 10110010. (2 marks)

.....  
.....  
.....  
.....  
.....  
.....

visit [www.freekcssepastpapers.com](http://www.freekcssepastpapers.com) to access more free exams

b) Describe the following types of errors in data processing, giving examples. (3mks)

(i) **Truncated**

.....  
.....

.....  
.....  
.....

**(ii) Transposition**

.....  
.....  
.....  
.....  
.....

**(iii) Transcription**

.....  
.....  
.....  
.....  
.....

c) Give the mode of processing that can be used in the listed situations. Explain your answer. (6 marks)

(i) Generating student's report forms at the end of the term.

.....  
.....  
.....  
.....

(ii) Railway ticket reservation.

.....  
.....

.....  
.....

(iii) Point of sale terminal in a supermarket.

.....  
.....  
.....  
.....

19. a) Explain the meaning of the following system characteristics. (4Marks)

i) Entropy

.....  
.....

ii) Controls

.....  
.....

b) State the three functions of an information system. (3Marks)

.....  
.....  
.....  
.....  
.....

(c) The Ministry of Education is changing the education system in Kenya from 8-4-4 to a Competency Based Curriculum (CBC) system by using a few schools to test the new system.

a) Identify the type of change over system being used here. (1 mark)

.....

b) What would be the advantage of using this changeover strategy? (2 marks)

.....  
.....  
.....  
.....

c) State any three contents of a feasibility study report. (3 marks)

.....  
.....  
.....  
.....  
.....

d) State two ways in which ICT has been used in the horticulture industry. (2 marks)

.....  
.....  
.....  
.....

20. a) Describe **three** ways in which computers have positively impacted on education. (3 marks)

.....  
.....  
.....  
.....

b) i. With aid of a diagram, describe a Star topology. (4 marks)

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

ii. State two advantages and two disadvantage of Star topology. (4 marks)

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

c) i. Define the term piconet. (1 mark)

.....  
.....

ii. What is the function of a Repeater in networking? (1 mark)

.....  
.....

d. Explain **two** factors you would consider before enrolling for an ICT course in a College. (2mks)

.....  
.....  
.....  
.....