**MARANDA HIGH SCHOOL**

**Kenya Certificate of Secondary Education**

**FORM FOUR EXAMINATION -2024**

**CODE451/1 SUBJECT: COMPUTER STUDIES Paper 1**

**JUNE– TIME 2Hours**

**Name**: …………………………………………….……**Adm** **No**: ……….……

**Class**: ………………**Candidate’s** **Signature**: …….……..**Date**: …..…/06/2024.

**INSTRUCTION TO CANDIDATES**

* Write your name and admission number in the spaces provided above
* This paper consists of **Two** sections **A** and **B**
* Answer **ALL** questions in section **A**
* Answer question16 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**

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| --- | --- | --- |
| **SECTION** | **QUSTIONS** | **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. Today, many companies are re-engineering their products to implement the USB connection to the computer. State any two reasons for the drift. **(2marks)**

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1. State three methods of input available for the operation of a smartphone. **(3mark)** **(3mark)**

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1. A vehicle assembly company has introduced robots to replace the human workforce. Describe two effects this would have on the work force. **(2marks)**

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1. It was noted that after every lesson, the students complained of itchy eyes and mild headache. State any two reasons for this problem. **(2marks)**

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1. State any two solutions of the problem mentioned in (4) (i) above. **(2marks)**

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1. State any two importance of referential integrity with reference to database tables. **(2marks)**

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1. State ways of manipulating text in a printable area of a publication **(2marks)**

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1. Bradwil is pursuing Bachelors of Computer Science at University of Lagos in Nigeria, he is supposed to graduate at the end of this year and then come back to Kenya to seek for employment Name any three career opportunities in the field of ICT that Bradwil may take up after graduation. **(3marks)**

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1. Malcom limited designs and sells software to end users in different parts of the country. The company noticed that some end users make copies of their products and selling without their permission to some users at a lower rate. State three things that the company must do to stop this malpractice **(3marks)**

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1. Explain three hardware factors that one must consider before installing an operating system **(3marks)**

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1. Financial institution handles a lot of data and also collaborate with other companies all over the World and therefore data integrity must be maintained all the times. Describe three ways employed by modern financial institutions to minimize threats to its data **(3marks)**

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1. Mr. Kikozi bought a flash disk of 16GB. He used quarter of the total space in the flash to save his personal documents, a half of the remainder for audio files. Calculate the remaining space in the flash in Megabytes **(3marks)**

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1. Explain the functions of the following layers of OSI model
2. Session **(2marks)**

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1. Network **(2marks)**

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1. Describe two reasons for extensive use of Mobile banking in modern society **(2marks)**

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1. Describe the term collated as used in printing **(1mark)**

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1. Describe three technological platforms used by Kenyan Secondary students to collaborate with their peers in Canada, US and UK **(3marks)**

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**SECTION B: 60 MARKS**

**Answer question number 16 any other three questions in this section**

1. Mention three attributes of a Machine language **(3marks)**

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1. Explain the following qualities of an Algorithm
2. Definiteness **(2marks)**

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1. Finiteness **(2marks)**

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1. The pseudocode below was written by a learner. Use it to answer the questions that follows

**Start**

**Sum=0**

**For count=0 - 4 do**

**Print “enter a number (N)”**

**Input N**

**If P>10 then**

**Number out of range**

**Else**

**Sum=sum + N**

**Print sum**

**End if**

**End for**

**Stop**

1. Identify the errors in the above pseudocode **(3marks)**

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1. Draw a flow chart for the corrected pseudocode **(5marks)**
2. State the stage in systems development when the activities listed below are performed **(4marks)**
3. The system analyst walk the users through the system

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1. A list of hardware and software requirement is generated

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1. Preparing of test data

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1. The system analyst presents a report recommending for a change in the system.

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1. State the difference between pilot and phase change over **(2marks)**

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1. Explain a reason for conducting the following studies in system development
2. Operational feasibility **(2marks)**

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1. Schedule feasibility **(2marks)**

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1. Janabi was preparing a document in Ms-Word which contain both text and graphics. He realized that graphics in the document were not properly fitted in the document. State three image transformation features available in Ms-Word that will assist Janabi in fitting the graphics nicely in the document **(3marks)**

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1. Mention three advantages of mail merging **(2marks)**

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1. Using 8 bits and twos complement subtract 4110 from 3010, giving your answer in decimal notation **(4marks)**

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1. Arrange the following numbers from the smallest to largest **(2marks)**

1011102,AFH, 658 and 32010

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1. Convert AC.FH to binary number system **(2marks)**

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1. The table below is an extract of a spreadsheet showing what the students had targeted and the actual scores in computer

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| --- | --- | --- | --- | --- | --- |
|  | A | B | C | D | E |
| 1 | **Name** | **Targeted Score** | **Actual Score** | **Performance factor** | **Remark** |
| 2 | Jane | 40 | 45 |  |  |
| 3 | Waoo | 30 | 65 |  |  |
| 4 | James | 50 | 60 |  |  |
| 5 | Riana | 30 | 20 |  |  |
| 6 | Shella | 45 | 45 |  |  |
| 7 | Martina | 70 | 60 |  |  |
| 8 |  |  |  |  |  |

A performance factor is obtained by subtracting the target score from the actual score and dividing the difference by target score. Write a formula that uses cell references only that would be entered in cell

1. D2 to compute performance factor **(2marks)**

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1. D8 to display the best performance factor **(2marks)**

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1. E2 to display the statement “More Remedial” If the performance factors is less than 1, “Exempted” if the factor is less than 3 and “Optional remedial” if otherwise **(3marks)**

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1. Briefly describe two functions of a query as used in database (**2marks)**

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1. Explain the following features of a DBMS
2. Macro **(2marks)**

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1. Module **(2marks)**

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1. Describe two types of controls used when designing a form as a user interface in a databases **(2mark)**
2. A student created a relationship between two tables then entered data in the respective tables. He was unable to run the queries because of the Type Mismatch error
3. State the cause of this error **(1mark)**

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1. State how this error can be corrected **(2marks)**

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1. What is telecommuting **(2marks)**

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1. Give two reasons to justify why telecommuting is gaining popularity in the modern society **(2marks)**

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1. Explain the following terms as used in Data security
2. Vulnerability **(2marks)**

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1. Social engineering **(2marks)**

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1. State two example of security monitors used to control threats to data **(2marks)**

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1. Alteration is illegal changing of data and information. This is one of the computer crimes common in the 21st Century. Describe three ways employed by organizations to curb this vice **(3marks)**

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1. Kijawinni runs a learning Institution in Kenya. List three top level domain names that he can use when creating a website **(3marks)**

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1. Mention three communication based internet services **(3marks)**

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