**FORM FOUR COMPUTER STUDIES EXAM– QUESTION PAPER**

1. State any three differences between data and information. (3 Marks)

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1. Give any two precautionary measures considered to ensure the safety of computers in a computer laboratory (2mks)

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1. Explain the following features of a word processor (3mks)
2. Wordwrap

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1. Thesaurus

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1. List the steps that you would use to correct wrongly spelt words in a document using the spell-checking feature. (3mks)

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1. Differentiate between the hardware and software components of a computer giving an example of each (4mks)

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1. Name any two types of graphs that are supported by spreadsheets (2mks)

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7.(a) Define relationship in database? (2mks)

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8.(a) Name any three Functions of a database (3 mks)

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b) Give two examples of database systems (2mks)

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9.(a) State two advantages of using two’s complement. (2 marks)

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(b) State any two characteristics of a computer infected by a virus(2 marks)

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10.A firm intends to purchase new software. List three items that should accompany the software. (3mks)

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11. Explain the meaning of each of the following computer crimes: - (3mks)

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12.List down 3 similarities between a normal calculator and a computer. (3 marks)

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13.(a) The accounts department of a secondary school is using a system that generates invoices that are printed in triplicate using carbon papers.

Name one type of printer suitable for this task. (1mrk)

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Give a reason for your answer I (a) above. (1mrk)

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 (b) Identify three hardware considerations to be made before installing an operating system. (3mrks)

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14.(a) State any two advantages and two disadvantages of an email over the Traditional Paper Mail/‘Snail Mail’ (4 marks)

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15.Differentiate the term portability in both hardware and software. (2mrks)

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**SECTION B (60 MARKS)**

**Answer question 16 (compulsory) and any other three questions.**

16.(a)(i)Name the following types of programming languages. ( 3 Marks)

MOV AX 01

MOV BX 02

ADD AX BX

**Int x ,y,z,p,q,t**

***if* ( a > b ) *then***

**x = y + z ;**

**p = q + t**

***else***

**x = y – z ;**

**p = q \* t**

***endif***

**10111011011101101110110111010111011011101101110101110110111011011101011101101110**

 (i)\_\_\_\_\_\_\_\_\_\_\_ (iii)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (ii)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(b)State One Advantage and one disadvantage of each of the a(i) above. ( 6 Marks)

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(c) (i)State and explain three types of program development errors ( 3 Marks)

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 (ii)Study the flow chart below and determine the value of F when N=3. ( 3 Marks)



17. (a) Define the following terminologies as used in data representation. (3mrks)

*Word*

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*Nibble*

……………………………………………………………………………………………………………………………………………………………………………………………………………………

*Byte*

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(b)**Complete the following table (9 marks)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Binary** | **Octal** | **Decimal** | **Hexadecimal** |
| 1010111 |  |  |  |
|  | 377 |  |  |
|  |  | 4552 |  |
|  |  |  | 3E2 |

(c) Using two’s compliment, perform the following binary arithmetic leaving the answer in decimal notation. (Use 8bits) (3mrks)

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18. (a) distinguish between the following pairs of terms (6marks)

 (i) Data verification and data validation

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 (ii) Data encryption and passwords

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 (iii) Dry run and bug.

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(b) Explain any three change over strategies in system implementation stage (9 Marks)

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19.(a) State any three Advantages and any two Disadvantages of Computer Networks (6 marks)

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(b) With aid of a diagram, explain the following Transmission Impairments (9 marks)

20. (a) (i) List four stages of data collection (2mrks)

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(ii) Describe any two types of data processing methods (2mrks)

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(b) Explain the following file organization methods (4mrks)

 (i) Sequential file organization

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(ii) Serial organization method.

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(c) (i) Define an operating system (1mrk)

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(ii) Briefly explain how an operating system: - (4mrks)

 Controls Input/Output devices

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Maintains security

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 (d) Explain the difference between a primary key and an index key as used in database. (2mrks)

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