**Name………………………………………………….Index: No……………………………**

**Adm.No…………………School………………………….class……….**

451/1

COMPUTER STUDIEs

PAPER 1

THEORY

2 ½ Hours

 

**EAGLE JOINT EXAM 2021**

**COMPUTER STUDIES**

**PAPER 1**

**THEORY**

***Instruction to Candidates.***

1. **Write your Name, Class and Index Number in the spaces provided at the top of this paper.**
2. **This paper consists of TWO sections; A and B.**
3. **Answer ALL the questions in Section A.**
4. **Answer question 16 and any other THREE questions from Section B.**
5. **All answers should be written in the spaces provided on the question paper.**
6. **This paper consists of 10 printed pages. Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.**

***For Examiner’s Use Only.***

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| --- | --- | --- |
| **Section** | **Question** | **Score** |
| **A** | **1 - 15** |  |
| **B** | **16** |  |
| **17** |  |
| **18** |  |
| **19** |  |
| **20** |  |
| **TOTAL** |  |

**SECTION A (40 marks)**

***Answer ALL the Questions in the spaces provided.***

1. Define the term system unit. (2marks)

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2. State four safety precautions to be observed in computer lab. (4marks)

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3. Define the following terms (3marks)

i) Amplitude

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ii) Frequency

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iii) Periodic time

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4. State two attributes of a good system analyst. (2marks)

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5. (i) Explain any page orientation that can be used to define a Desktop Publication layout (2marks).

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 (ii) Define the term cropping. (1mark)

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6. An institution opted for a laser printer over dot matrix printer. State two reasons why the institution opted for the laser printer (2marks).

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7. Define the following terms as used in data security. (2marks)

(i) Industrial espionage

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(ii) Social engineering

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8. Name two examples of web browsers. (2marks)

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9. (a) Explain the term toggle keys as used in computer keyboard.(2marks)

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b) Differentiate between delete key and backspace key as used in computer keyboards (2marks)

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10. Differentiate between logical and physical files. 2marks)

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11. Name two types of special purpose memory. (2marks)

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12. State three functions of UPS. (3marks)

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13.( a) Define electronic word processor? (1mark)

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b) Differentiate between merging and splitting cells as used in word processor. (2marks)

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14. ( a) What is disk formatting? (2marks)

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 (b) State two important of formatting a disk before use. (2marks)

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15. Explain two meanings of **WORM** in relation to computer.(2marks)

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**SECTION B (60 marks)**

***Answer Question 16 and any other three questions from this section in the spaces provided.***

16. (a) (i) Define programming language (2 marks)

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 (ii) State any two examples of third generation programming languages (2 marks)

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(b) Other than flowchart, state any other algorithmic tools. (2 marks)

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 (c) Wasili is a taxi company that owns three models of cars; Prado, NZE and Vitz. The company uses a computerized system to run its operations. Customer’s details required are Name, Telephone, current location and Destination. Upon capturing the customer’s location and destination, the system automatically computes the distance. The company charges basing on car model used at Ksh 70 (Prado), Ksh 60 (NZE) and Ksh 50 (Vitz) per kilometer for the first between 1 -10km. If the vehicle travels more than 10Km, a customer is given 10% discount of the total cost. Draw a flowchart that will be used to compute and display total charges for a customer. (9 marks)

17. (a) Outline any four areas that are considered during requirements specification stage of system development (4 marks).

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 (b) State three factors considered during file conversion in system implementation. (3 marks)

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(c) State the functions of the following parts of the fibre optic cable: (3 marks)

(i) Core

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(ii) Cladding

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 (iii) Jacket

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d) (i) Differentiate between attenuation and bandwidth as used in data communication (2 marks).

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 (ii) State three advantages of bounded over unbounded media communication. (3 marks)

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18. (a) Study the chart/diagram below carefully and identify the gaps labeled (4 marks).

COMPUTER SOFTWARE

ACQUISITION

A

PURPOSE

APPLICATION

B

C

D

E.g Microsoft office

office

1. A ……………………………………………………
2. B ……………………………………………………..
3. C ………………………………………………………..
4. D ……………………………………………………………

b) (i) What is a PnP device? (1 mark)

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 (ii) State two examples of PnP devices. (2 marks)

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c) ( i) The following is an example of a spreadsheet function in cell **D10**

 **=SUM($H1:H10)**

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A B C

Identify parts labeled. (3 marks)

(i)A …………………………………………………………………

(ii)B …………………………………………………………………

(iii) C ………………………………………………………………..

ii) The function above was copied to cell B15. State the new function in the cell B15. (2 marks)

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d) State three function of Database Management System (DBMS). (3marks)

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19. (a) State two uses of recycle bin folder as used in the operating system.(2 marks)

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 (b) Explain the **Drag and Drop** operation files operation. (2 marks)

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 (c) State and explain two function of operating system. (4marks)

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(d).i)a certain company has a problem with data security in their organization. That have branches in several places linked by fibre optic. List two possible ICT professional that could be hired to sort out the problem. (2 marks)

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ii) There have been issues about global warming. List two ways ICT could have contributed to the global warming (2 marks)

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 (e) Define simulation (1 mark)

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(f) Differentiate between **CAI** and **CAL. (2 mark)**

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20. (a)using place value method convert 4110 in to binary equivalent (4 marks)

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(b) Convert **-1710** to binary and leave answer in signed magnitude (4 marks)

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(c) Differentiate between online and real time Electronic Data Processing Mode and give example in each case. (4 marks)

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(d) State three limitations of electronic data processing. (3 marks)

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