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NAME………………………………………..……. INDEX NO………..…………………..

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ASUMBI GIRLS HIGH SCHOOL
POST -MOCK 1
AUGUST/SEPTEMBER
2022
AUGUST / SEPTEMBER - 2022

COMPUTER STUDIES
PAPER 1
(THEORY)

Instructions to Candidates

(a) *Write your Name, Admission number and Class in the spaces provided above.*
(b) *This paper consists of **two** sections; **A** and **B**.*
(c) *Answer **ALL** the questions in section A*
(d) *Answer question 16 and any other THREE questions from section B*
(e) ***ALL** answers should be written in the spaces provided on the question paper.*
(f) ***This paper consists of 7 printed pages.***
(g) ***Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing**.*
(h) ***Candidates should answer the questions in English***

SECTION A (40 MKS)

Answer all questions in this section.

1. State the software technological differences between the second generation and the third generation computers [2 marks]

2. State **two** ways of ensuring proper ventilation in a computer room [2 marks]

3. Convert the decimal number 20.375 to it binary number system equivalent [3 marks]

4. Pat has installed internet in his home computer in order to use it for browsing. State three ways in which he would prevent viruses from infecting the computer. [3 marks]

5. State **three** ways of transforming a picture embedded in a Desktop Publishing programme in order to fit in a designated space on a computer. [3 marks]

6. Distinguish between a line printer and a page printer as used in computers. [2 marks]

7. Describe virtual reality as used in computers. [2 marks]

8. State the function of each of the following features of an email software
   a) Inbox   [1 mark]

   b) Draft   [1 marks]

9. a) Explain the term toggle key as used in computer keyboard   [2 marks]

   b) List two examples of toggle keys on a keyboard   [2 marks]

10. State the type of error that would occur in data processing for each of the following cases:

a) Entering the number 315 instead of 351   [1 marks]

b) Entering the text "Kwys" instead of "Keys"   [1 mark]

11. State **four** factors to consider when selecting an input device for use in a computer room. [4 marks]

12. State **three** functions of Un-Interruptible Power Supply (UPS) [3 marks]

13. Distinguish between a page break and a column break as used in a word processor. [3 marks]

14. State **three** factors to consider when selecting an operating system to install in a computer. [3 marks]

15. Differentiate between analogue signal and digital signal as used in computers. [2 marks]

SECTION B (60 marks)

Answer ALL questions from this section in the spaces provided.

16. a) Explain the term dry running as used in program development. [2 marks]

b) Describe **three** properties of an algorithm. [3 marks]

c) Write an algorithm using both pseudocode and flow chart to print the sum and average of numbers from 1 to n where n is provided by user and n>=1.   [10 marks]

17. a) State **four** outcomes that may result from using incorrect requirement specifications during system development. [4 marks]

b) A school opted to use direct change over approach when installing a new system. Explain three challenges that the school may face as a result of this approach. [6 marks]
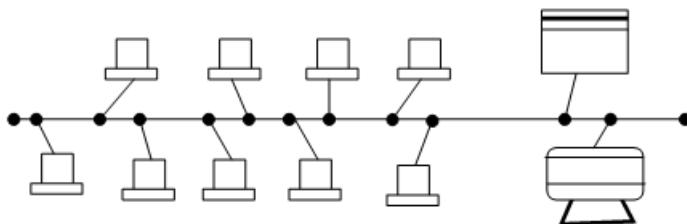
c) State **three** reasons that may lead an organization to install an intranet.   [3 marks]

d) The figure below shows a coaxial cable. State the function of the part labelled A. [2 marks]

A

18. Use the figure below to answer the questions that follow:

a) Give the name of the above network topology   [1 mark]

b) State three disadvantages of the above topology   [3 marks]

c) A publisher intends to use a desktop publishing programme to create a publication which is to have many graphics. State three ways in which the graphics may be acquired for this purpose. [3 marks]

d) Interpret each of the following spreadsheet formula:

  i)   =count if (D2:D9,">" B4)   [2 marks]

  ii)   =sumif (B3:B11,"4M", D3:D11) [2 marks]

e) i) The following are the fields of products table in a database created to store records of products manufactured in factory:

- Product number
- Product name
- Price
- Product description

I. State the appropriate data type for each field [4 marks]

19. a) Explain **three** features of a graphical user interface as used in computers. [6 marks]

        b) State the function of each of the following computer keyboard keys:

i) Caps Lock   [1 mark]

ii) Shift   [1 mark]

iii) Home   [1 mark]

c) Using two's complement notation, determine the value of the operation $25_{10} - 29_{10}$. [6 marks]

20. a) Distinguish between a computer drive and computer driver. [2 marks]

b) State **two peripheral** devices connected to the computer via PS/2   [1 mark]

c) Jane encountered desktop computer with the following features
- 3.0 USB ports
- 4.0 GB primary storage
- 19" TFT VDU
- 500 SATA HDD
- Linux 7.1
- AVG antivirus

i)   Give 3 reasons for wide use of USB gadgets in the society today.   [3 marks]

ii)   What is the meaning of the following specifications:
   i.   *4.0 GB primary storage*   [1 mark]

   ii.   *19" TFT VDU*   [1 mark]

   iii. *500 SATA HDD*   [1 mark]

   iv.   *Linux 7.1*   [1 mark]

iii) Give **three factors** to consider when selecting an **OS** to install in your computer. [3 marks]

iv). Describe **two symptoms** of a computer infected by virus.   [2 marks]