COMPUTING

STRUCTURE AND SCHEME OF THE EXAMINATION

The examination will consist of two papers for a total duration of 2 hours. Paper 2 which comes first will be (Essay) and Paper 1 which follows will be (Objective).

1. **PAPER 1 (OBJECTIVE)**
   The paper will consist of 40 compulsory objective questions and will last for 45 minutes. This will carry 40 marks.

2. **PAPER** 2 (ESSAY)
   The paper will consist of two sections: A and B.
   Section A will be a compulsory question for 24 marks and Section B will have 4 questions out of which candidates will answer any 3 for 12 marks each. The Paper will last 1 hour 15 minutes and will carry 60 marks.

NB: Candidates are expected to answer **only four** questions in all. Any candidate, who contravenes this instruction, would have only the first four answers marked leaving those in excess unmarked.

3. **WEIGHTING OF THE PAPER**

Paper	Marks	Scaling factor	Total marks
1 (Objective)	40	1	100
2 (Essay)	60	1	

SAMPLE QUESTIONS
PAPER 1 (OBJECTIVE)
Candidates are expected to answer 40 questions on this paper.

*Each question is followed by **four** options lettered A to D. Find the **correct** option for **each** question and shade in **pencil** on your answer sheet the answer space which bears the same letter as the option you have chosen. Give only **one** answer to **each** question.*

1. Which program icon on the desktop leads to the disk drives?
   A. Internet Explorer
   B. My Computer
   C. My Document
   D. My Network Places

2. The Fourth Generation of computers is associated with
   A. vacuum tubes.
   B. semi-conductors.
   C. transistors.
   D. microprocessor.

3. To underline selected text in a Word document, use the keys
   A. Ctrl + U
   B. Shift + U
   C. Alt + U
   D. Del + U

4. The default MS PowerPoint layout is
   A. section header.
   B. title only.
   C. two content.
   D. title slide.

5. Which of the following measures is used to evaluate a webpage to ensure how true the information acquired is?
   A. Currency
   B. Content
   C. Credible
   D. Accuracy

6. A bit that is turned OFF represents
   A. 1
   B. −1
   C. 0
   D. ±1

7. The step-by-step approach used in solving a specific problem is
   A. sequencing.
   B. selection.
   C. algorithm.
   D. iteration.

8. Convert 15_{ten} to a binary
   A. 1111_2
   B. 1110_2
   C. 1011_2
   D. 1101_2

9. The robotic component that allows the robot to interact with its environment such as movement and manipulation are
   A. sensors.
   B. actuators.
   C. power source.
   D. control systems.

10. In querying an expert system, the IF-THEN control structure
    A. provides information on the use of the system.
    B. specifies the reason for querying the system.
    C. provides information about the user of the system.
    D. specifies a condition and an action to be taken.

PAPER 2 (ESSAY)

This paper is in **two** *sections. A and* **B**. *Canddates are expected to answer Question 1 in section A and any other* **three** *questions in Section* **B**
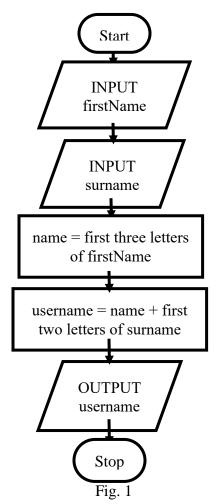
SECTION A

[24 marks]

Answer Question 1

[**Compulsory**]

1. The Head of your school presented the program shown in Fig. 1 to the school's Programming Club. The program creates usernames for students in the school. Members of the Club were then tasked to discuss and answer the questions that follow:

Fig. 1

Using the process in Fig 1, Kojo Baah's username would be KojBa.

    (a)   Write the name of Fig 1: …………………………………………......

    ……………………………………………………………………………..

    [**2 marks**]

    (b)   Using the process in Fig 1, create the username for Patience Mensah.

    ………………………………………………………………………….[**2 marks**]

(c)   Draw the symbol that represents the processing stage of the program

…………….….…………………………………………………………… [**2 marks**]

Fig 1 is updated to create usernames as follows: username is the last 3 letters of surname and the first 2 letters of first name.

(d)   What will be the username for a student called Mark Elolo using the updated process?

…………………………………………………………………….…….. [**4 marks**]

(e)   Write an algorithm for the updated process in (d).

…………………………………………………………………………………………..

……………………………………………………………...…………...…………………..

……………………………………………...……………………………………...…………

[**14 marks**]

SECTION B
[36 marks]
Candidates are expected to answer **three** *questions* **only** *from this section.*

2.   (a) Discuss **one** features each of the fourth generation computers in terms of:

(i)   cost: …………………………………………………………………………..

(ii)   processor: …………………………………………………………………….

[6 marks]

(b) Describe **three** features of the computer mouse.

(i) ………………………………………………………………………………….

(ii) …………………………………………………………………………………

(iii) …………………………………………………………………………………...

[6 marks]

3.   (a) Describe the best way to resize a picture in order to avoid distorting its aspect ratio.

…………………………………………………………………………………………

…………………………………………………………………………………………

[3 marks]

(b) Differentiate between the *Save* and the *Save As* commands. Give one example each in both cases ……………………………………………………………………………….

…………………………………………………………………………………………

[6 marks]

(c) Kojo Talata designed a brochure which contains texts and images. He is finding it difficult to write the texts around the images as the desktop publishing application is not allowing that. What tool will be applicable to achieve the task?

…………………………………………………………………………………………

…………………………………………………………………………………………

[3 marks]