**NAME:……………………………………………………………………………………………..ADM:………………….CLASS:…….**

**BIOLOGY PAPER 3**

**FORM 3**

**END TERM 2 2024**

**TIME: 13/4 HOURS**

**INSTRUCTIONS TO CANDIDATES**

* Answer **all** the questions.
* Answers **must** be written in the spaces provided in the question paper.
* Additional pages **must not** be inserted.
* Candidates may be penalized for recording irrelevant information and for incorrect spellings.

1. Study the photographs below and answer the questions that follow.



### SPECIMEN Q SPECIMEN R

a) The two specimen belong to the same Phylum. Giving **two** reasons, name the phylum of the specimen. ( 3 marks)

i) Phylum………………………………………………………………………

ii) Reasons

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

b i) Name the **class** to which the specimen belong. (1mark)

……………………………………………………………………………………….

ii) State **three** characteristic features common to both specimens that support your answer. (3 marks)

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

1. Based on observation from the photos, state how the mouthparts of specimen **Q**

and **R** are adapted to their functions. (4 marks)

Specimen **Q**

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

Specimen **R**

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

1. Citing visible features, state **two** modes of locomotion for specimen **Q**.

(2 marks)

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

2. You are provided with a 7cm visking tubing. Immerse it in water for 1 minute. Remove it from water, rub it between your fingers to open it. Using one piece of cotton thread, tie one end tightly.Put 4cm3 of solution X in the visking tubing and tie the other end tightly using a piece of the other cotton thread. Rinse off the visking tubing using distilled water. Immerse it in iodine solution contained in a 100ml beaker. Leave the set up to stand for 10 minutes. Make observation and answer question that follow.

(a) Suggest the likely food substance contained in solution **X.** (1mk)

………………………………………………………………………………………………

(b) State the physiological process under investigation. (1mk)

……………………………………………………………………………………………

(c) Account for the observation made at the end of the process. (4mks)

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

(d) Using the reagents provided, carry out tests to determine the food substances present in solution X. Write the procedure, observation and conclusion in the table below; (9 mks)

|  |  |  |  |
| --- | --- | --- | --- |
| **Food tested** | **Procedure** | **Observation** | **Conclusion** |
| Reducing sugar |  |  |  |
| Non-reducing sugar |  |  |  |
| Protein |  |  |  |

3. Study the photographs below and answer the questions that follow.



# K

**Q**

a i) Suggest the agent of pollination for specimen **Q**. ( 1 mark)

…………………………………………………………………………………

ii) Give **three** adaptations of the flower that support your answer in a (i) above.

(3 marks)

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

1. State **five** differences between specimen Q and K. (5 marks)

|  |  |
| --- | --- |
| **Specimen Q** | **Specimen K** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

1. On the photograph of specimen K, label the following:- ( 3 marks)

### Stigma

* + **Anther**
  + **Style**