Name: ..... Index No.....

School: ..... Signature: .....

553/2
BIOLOGY
(PRACTICAL)
PAPER 2
July/August
2 hours

# WAKISSHA JOINT MOCK EXAMINATIONS

## Uganda Certificate of Education

## BIOLOGY

## (PRACTICAL)

**Paper 2**

**2 hours**

**INSTRUCTIONS TO CANDIDATES:**

- This paper consists of **three** questions.
- Answer **all** questions.
- All answers should be written in the spaces provided.
- Drawings should be made in the spaces provided.
- Use sharp pencils for your drawings.
- Coloured pencils or crayons should **not** be used.
- No additional sheets of writing paper are to be inserted in the booklet.
- Work on additional sheets will **not** be marked.

**FOR EXAMINER'S USE ONLY.**

| Question | Marks | Examiner's No. & Initials |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| TOTAL | | |

1. You are provided with specimens A, B and solution Q.
Peel specimens A and B.
Cut four cubes from specimen A, each measuring 1cm × 1cm × 1cm.
Also cut one cube from specimen B of the same size.
Carry out the procedure below.

(i) Cut one of the cubes of A into four equal pieces.
(ii) Cut the second and third cube, each into eight equal pieces.
(iii) Leave the fourth cube intact.
(iv) Cut the cube of specimen B also into eight equal pieces.
(v) Label the boiling tube as $A_1$ and four test tubes as $A_2$, $A_3$, $A_4$ and $A_5$
(vi) Boil the eight pieces cut from the third cube of A in $5cm^3$ of water for 5 minutes. (keep the pieces of each cube separate)
(vii) Measure and add 5 $cm^3$ of solution Q to the boiling tube and to each of the test tubes $A_2$ to $A_5$.

(a) To each test tube and boiling tube, add the cut cubes as indicated in table 1 below.
Record your observations and deductions (10 marks)

TABLE 1

| Test tube/ Boiling tube | Contents | Observations | Deductions |
|---|---|---|---|
| $A_1$ | Q + intact cube of A | | |
| $A_2$ | Q + four pieces of A | | |
| $A_3$ | Q + eight fresh pieces of A | | |
| $A_4$ | Q + eight boiled pieces of A | | |
| $A_5$ | Q + eight Pieces of B | | |

(b) Explain the difference in your results in test tubes;

(i) $A_1$ and $A_2$ (02 marks)

(ii) $A_3$ and $A_4$ (02 marks)

(iii) $A_3$ and $A_5$ (02 marks)

(c) State what was being investigated in this experiment. (03 marks)

(d) State the role of specimen A and B in the experiment. (01 mark)

2. You are provided with specimens K and L which are animal structures.

(a) With reasons, state the identity of the animal structures.

Identity; _____ (01mark)

Reasons; (02 marks)

(b) Suggest the part of the body of the animal from which each specimen was obtained. Give a reason in each case. (04 marks)

| Specimen | Part of the body | Reason |
|---|---|---|
| K | | |
| L | | |

(c) Describe the structure of specimen L. (03 marks)

(d) State **three** structural differences between specimens K and L. (04 marks)

| Specimen K | Specimen L |
|---|---|
| | |
| | |
| | |

(e) Draw and label the anterior view of specimen L. (06 marks)

3. You are provided with specimens R and S.

a) Observe the specimens and give the identity of each using observable characteristics features.

Identity of R; _____ (01 mark)

Observable features; (02 marks)

_____

_____

Identity of S; _____ (01 mark)

Observable features; (02 marks)

_____

_____

b) Basing on your observations, state the class to which specimen S belongs. Give **two** reasons to support your answer.

Class; _____ (01mark)

Reasons; (02marks)

_____

_____

c) Examine specimen S and describe its leaves. (03 marks)

_____

_____

_____

_____

_____

_____

d) Explain how specimen R is suited for survival in its habitat. (02marks)

_____

_____

_____

_____

e) Cut specimen S transversally into two halves. Draw and label one half.
(06 marks)

**END**