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		

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Turn Over

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 5cm³ of water for
           5 minutes. (keep the pieces of each cube separate)
   (vii)   Measure and add 5 cm³ 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; _____ (01 mark)

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)

_____

_____

_____

_____

CamScanner

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

(06 marks)

END