MARANDA HIGH SCHOOL

Kenya Certificate of Secondary Education

PRE-MOCK EXAMINATIONS 2022

231/3 BIOLOGY Paper 3

JUNE 2022 – $1\frac{3}{4}$ Hours

Name: .....Adm No: .....

Class: .....Candidate's Signature: .....Date: ...../6/2022.

INSTRUCTIONS TO CANDIDATES:

- *Write your **name** and **admission number** in the spaces provided.*
- *Sign and write **date** of examination in the spaces provided above*
- *Answer **all** the questions in this paper.*
- *You are required to spend the first 15 minutes of the 1¾ hours allowed for this paper reading the whole paper carefully.*

For Examiner's Use Only:

QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
1	14	
2	12	
3	14	
TOTAL	**40**	

1.You are provided with olive oil, liquids labeled L_1 and L_2, and an Irish potato. Label test tubes A and B. Place $2cm^3$ of water into each test tube. Add 8 drops of olive oil into each test tube. To test tube A, add 8 drops of liquid L. Shake both test tubes. Allow to stand for 2 minutes.

(a)

(i) Record your observations made in the test tubes A and test tube B

Test Tube A (1mark)

Test Tube B (1mark)

(ii) Name the process that has taken place in test tube A (1 mark)

(iii) State the significance of the process named in (a) above (1 mark)

(iv) Name the digestive juice in humans that has the same effect on oil as liquid L_1 (1 mark)

(v) Name the region of the alimentary canal into which the juice is secrete (1 mark)

(b)

(i) Label two test tubes C and D place $2cm^3$ of liquid L2 into each test tube. Add a drop of iodine solution into each test tube.

Record your observations. (1 mark)

(ii) Suggest the identity of L_2 (1 mark)

(iii) Cut a cube whose sides are 1cm^3 from the Irish potato. Crush the cube to obtain a paste. Place the paste into a test tube labeled C. add 2cm3 of amylase solution. Leave the set up for at least 30 minutes.

(i) Record your observations (1mark)

C_____

(iv) Account for the result in (b)(iii) above (2marks)

_____

_____

(iv) Cut another cube whose sides are 1cm from the Irish potato. Crush the cube. Place the crushed paste into a test tube. Carry out food test with reagents provided. Record your procedure and results.

Procedure: (2marks)

_____

_____

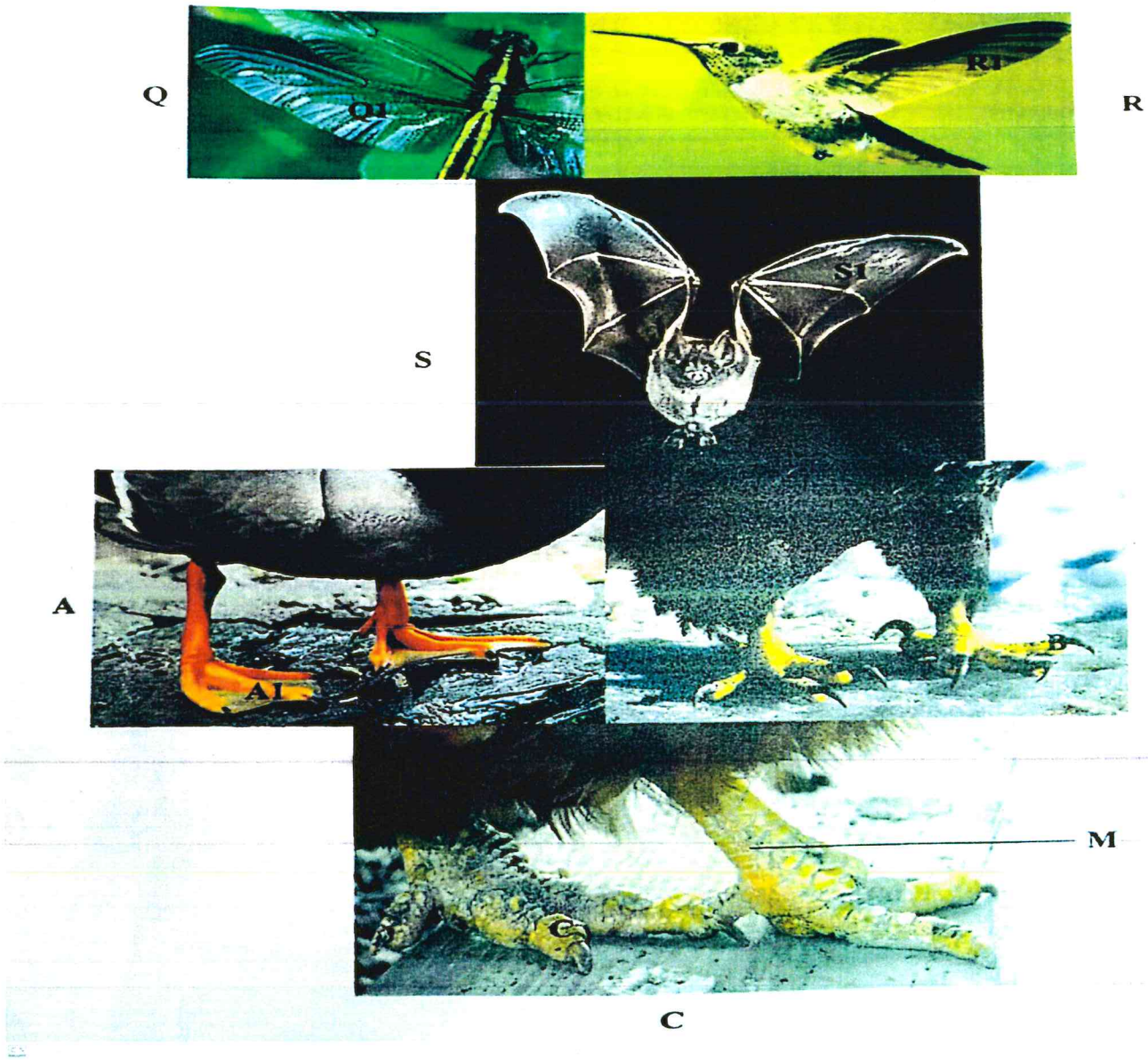
_____

Results: (1mark)

_____

_____

2. Study the photographs shown below then answer the questions that follow.



a) State the type of evolution represented by structures **Q1, R1,** and **S1**. (1mark)

_____

b) Explain the type of evolution identified in (a) above (1mark)

_____

c) Give the evolution term used to describe structures

(i) **Q1, R1 and S1:** _____ (1mark)

(ii) **A1, B1, and C1:** _____ (1mark)

(d) (i) What type of evolution is illustrated by the limbs (A1, B1 and C1) (1mark).

_____

(i) Name the class for each **Q, R** and **S.** (3marks)

Q: _____

R: _____

S: _____

(ii)Give **one** observable reasons for your answer for class S (1mark)

_____

_____

(iii) Suggest the diets of animals **B** and **R** (2marks)

B: _____

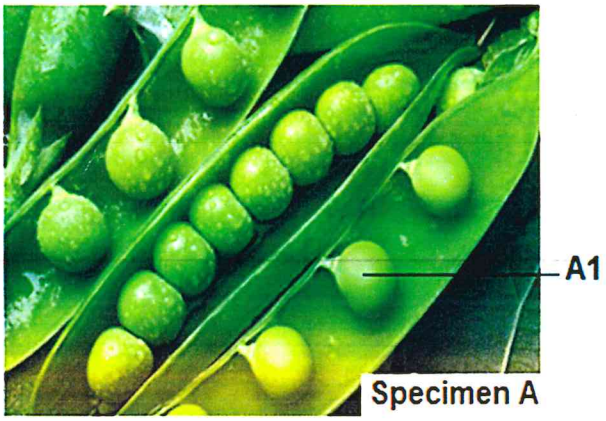
R: _____

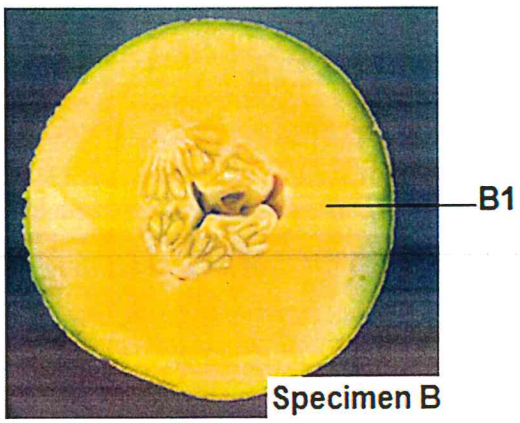
(iv) How is beak of animal **B** adapted to its function (1mark)

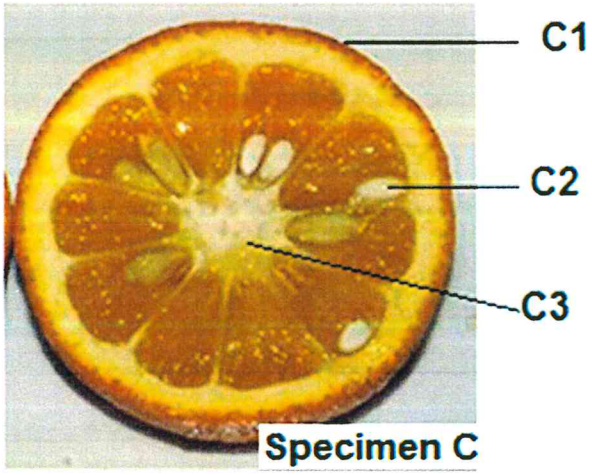
_____

_____

3. Study the specimens provided then answer the questions below.







(a)Name the parts labeled **A1, B1, C1** and **C3** (4marks)

A1_____

B1_____

C1_____

C3_____

(b) Fill in the table below with appropriate agent of dispersal and give a reason. (2mark)

specimen	Agent of Dispersal	Reason
A		

(c) How does part C2 adapt Specimen C to its agent of dispersal? (1mark)

_____

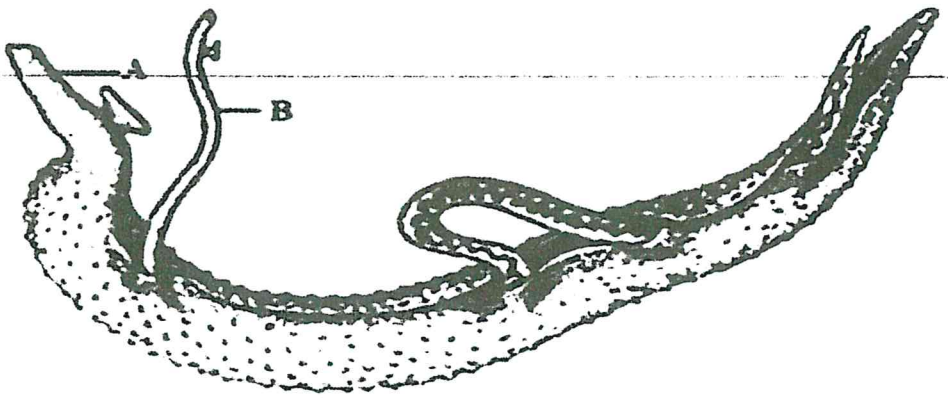
_____

(d) Explain why Specimen A is important in a child's diet. (1mark)

_____

_____

(e) The diagram below represents two mature parasitic worms, labelled **A** and **B**, of the species *Schistosoma mansoni* that causes bilharzia



(i) With a reason, identify the male and the female worm in the diagram above. (3marks)

Male_____ (ii

Female_____

Reason_____

_____

(ii) Name **two** hosts, primary and intermediate, for these parasitic worms. (2marks)

Primary host_____

Intermediate host_____

(iii) State **one** way of controlling the spread of bilharzia (1marks)

_____

_____