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Biology

Paper 2
2 hours

July/August 2022



KAMSSA JOINT MOCK EXAMINATIONS

Uganda Certificate of Education

BIOLOGY PRACTICAL

Paper 2

2 hours

Instructions to candidates

- Attempt **ALL** questions in this paper.
- Drawings should be done in the spaces provided
- Use sharp pencils for drawings.
- Colored pencils or crayons should not be used.

FOR EXAMINER'S USE ONLY

Question 1	Question 2	Question 3	Total

1. You are provided with solutions, A, B and C. You are to investigate the action of solution C on solution A and B.

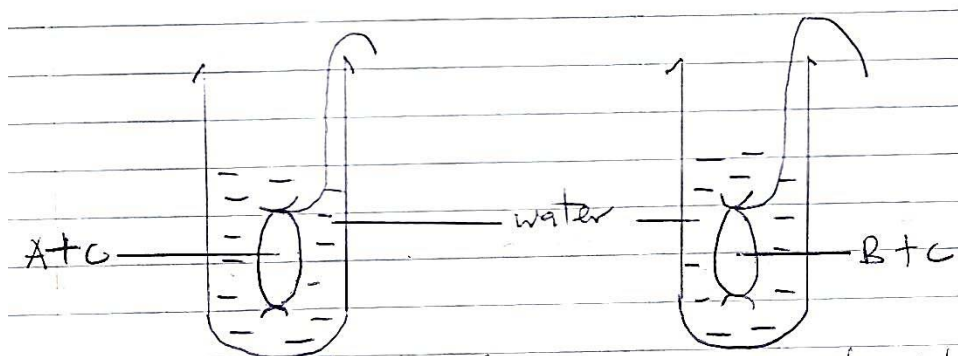
a) Carryout the following tests on the solutions and record your results in the table below;
(14 marks)

Tests	Observations	Deductions
i) To 1cm^3 of A in the test tube; add 2 drops of iodine solution.		
ii) Repeat test (i) using solution B.		
iii) To 1cm^3 of solution A in test tube, add 5 drops of Benedicts solution and boil.		
iv) Repeat test (iii) using solution B		
v) To 1cm^3 of solution A in a test tube, add 5 drops of dilute HCL boil and cool. Add 5 drops of dilute NaOH add 5 drops of Benedict's solution and boil.		
vi) Repeat test (v) using solution B.		

b) Take the two visking tubes provided; open them and a thread tie the end of tube securely. Add 2cm^3 of solution A followed by 1cm^3 of solution C to one visking tube; tie the end of it and wash its outside. Lower the visking tube containing the solution into a boiling tube containing 10cm^3 of water leaving the thread to hang out of the boiling tube. Label the boiling tube 1. Repeat the procedure, by adding solutions B and C into the second visking tube.

Label the tube 2.

(Your set up should look like the drawing below)



Incubate the boiling tubes at 35-40°C for 20minutes. After 20minutes carryout the following tests and record your results in the table below; (06 marks)

Tests	Observations	Deduction
i) To 1cm ³ of water from boiling tube T in a test tube; add 2 drops of iodine		
ii) To 10cm ³ of water from boiling tube T add 5 drops of Benedict's solution and boil.		
iii) Repeat test (ii) using water from boiling tube 2.		

c) Explain results in test b(ii) and (iii) (03marks)

.....

(ii) Suggest the nature of substance C. (01mark)

.....

(iii) From results, state one property of C (01mark)

.....

2. You are provided with specimens **K** and **L**

(a) Identify the specimens giving two reasons in each case (06marks)

(i) **K**.....

Reasons

.....

.....

(ii) **L**

Reasons

.....

.....

(b) From the structures of the specimens, state the part(s) of the animal's body each specimen was taken from. (2 marks)

K

.....

L

.....

(c) (i) Pour a little water on the specimens one at a time and state what is observed.

(1 mark)

K.....

L.....

(ii) What is the significance of your observation in (c) (i)?

(2 marks)

Significance of **K**

.....

The significance of **L** is

.....

(d) How are the specimens suited for their functions on the animal from which were obtained?

(4 marks)

K

.....

.....

.....

L

.....

.....

.....

(e) In the space provided, draw and label specimen **L**.

(4 marks)

3. You are provided with specimens **O**, **P**, **Q** and **R** which are fruits.

(a) What type of fruits are specimens **P** and **R**?

(2 marks)

P

R

(b) Cut a transverse section of specimen O. Examine the specimens and give two characteristic features of each specimen.

(8 marks)

SPECIMEN	CHARACTERISTIC FEATURES
O	
P	
Q	
R	

(c) Use the characteristics in (b) to construct a dichotomous key to identify the specimens.

(03marks)

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.....

(d) For each of the specimens O, P, Q and R, state the agent of dispersal and describe how each specimen is adapted to being dispersed by the stated agent (06marks)

(i) Specimen **O**

Agent of dispersal

.....

Adaptation

.....

.....

.....

(ii) Specimen **P**

.....

Adaptation

.....

.....

.....

END