

Name:.....Stream:.....

55/2  
BIOLOGY  
PRACTICAL  
PAPER 2  
2 hours

**Uganda Certificate Of Education  
PRE-REGISTRATION EXAMINATIONS 2019  
BIOLOGY PRACTICAL  
PAPER 2  
2 HOURS**

**Instructions to candidates:**

- Answer ***all*** questions.
- Drawings must be made in the spaces provided.
- Use sharp pencils for your drawings.

**For Examiner's use only.**

Question	Marks	Examiner's signature
1		
2		
3		
<b>Total</b>		

1. You are provided with suspension S and solution P.

- a) Carryout the following tests to identify the food substances present in suspension S. record your tests, observations and deductions in the table below.  
(11 marks)

TESTS	OBSERVATIONS	DEDUCTIONS
i) <b><u>Test for starch</u></b>		
ii) <b><u>Test for reducing sugars</u></b>		
iii) <b><u>Test for proteins</u></b>		

- b) Put 2cm<sup>3</sup> of solution S in a test tube and add an equal amount of solution P. Incubate the mixture in a water bath maintained at 35-40°C for 20 minutes. After the 20 minutes, carry out the following tests on the mixture and record your observations and deductions in the table below.

(4 marks)

TEST	OBSERVATION	DEDUCTION
<u>Reducing sugar test</u>		
<u>Biuret's test</u>		

- c) From your results in (a) and (b);  
i) Suggest with a reason, the identity of solution P. (2 marks)

Identity.....

Reason

.....  
.....

- ii) State with a reason, one property of solution P. (3 marks)

Property.....

Reason

.....  
.....

2. You are provided with specimens A and B.

- a) Examine specimen A and giving two reasons, identify what part of the plant the specimen is. (2 marks)

Specimen A:.....

Reasons:.....

.....  
.....  
.....

- b) Cut specimen B transversely and examine it. Giving two reasons, identify specimen B. (2 marks)

Specimen B:.....

Reasons:

.....  
.....

c) State 4 structural differences between specimen A and B. (4marks)

<b>SPECIMEN A</b>	<b>SPECIMEN B</b>
i)	
ii)	
iii)	
iv)	

d) Explain how specimen A is adapted to its mode of dispersal. (2 marks)

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e) Draw and label one half of specimen B in the space provided. (8 marks)

3. You are provided with specimens Q and R.

a) Examine the specimens and giving two reasons, state the class to which they belong. (3 marks)

Class:.....

Reasons:

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.....  
.....  
.....

i) Using a hand lens, examine one antenna of specimen Q and describe it. (2 marks)

.....  
.....  
.....  
.....

ii) Measure the length of one antenna and length of the body of specimen Q and calculate the ratio of the length of antenna to length of the whole body. (3 marks)

Length of antenna

.....mm

ii) Length of body

.....mm

Ratio of length of antenna to length of body

.....  
.....

iii) State the significance of the ratio obtained in b (ii). (2 marks)

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.....  
.....

c) Place the specimens Q and R with the ventral side uppermost and examine their limbs using a hand lens. Write down three characteristics of the limbs of each specimen. (3 marks)

<b>Specimen</b>	<b>Characteristics of limbs</b>
<b>Q</b>	
<b>P</b>	

d) Place specimen R with the dorsal side upper most. Draw and label its thorax and first segment of the abdomen. (7 marks)

**END**