Name: ……..Index No……

Signature:…… School:……..

553/3
Biology practical
Paper 3
July/August 2019

BUGANDA EXAMINATIONS COUNCIL MOCKS

Uganda Certificate of Education

BIOLOGY PRACTICAL

PAPER 3

2HOURS

INSTRUCTIONS TO CANDIDATES

- Answer all questions in the spaces provided.
- All drawings must be made in the spaces provided.
- Drawings should be made with a sharp pencil.

NO.	**MARKS**	**SIGNATURE**
1		
2		
3		
TOTAL		

1. You are provided with solution B and C.

(a) Carryout the test on solution B in table 1 below to establish the chemical nature of solution B.

Table 1 (8½marks)

TEST	OBSERVATION	CONCLUSION
To 1cm^3 of solution B add 2 drops of iodine solution		
To 1cm^3 of solution B add 1cm3 of Benedict's solution and boil.		
To 2cm^3 of solution B add 1cm^3 of sodium hydroxide solution followed by 2 drops of copper II sulphate.		

(b) Obtain 3 test tubes, label them 1, 2, 3. Pour 2cm^3 of solution **B** to all test tubes then to;

Test tube 1 add 2cm^3 of solution C

Test tube 2 add 1cm^3 of solution C

Test tube 3 add 0.5cm^3 of solution C

Incubate all test tubes at 35 – 40^{o}C for five minutes. Carryout Benedict's test on all test tubes.

Record your observation and conclusion in the table II below.

Table II (08marks)

Benedict's test	Test tube	Observation	Conclusion
To 1cm^3 of solution add 1cm^3 of Benedict's and boil.	1		
	2		
	3		

(c)(i) With a reason identify the nature of solution C. (02marks)

Reason: ……

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(ii) Suggest an explanation for the difference in the conclusion made between test tubes 1 and 3. (02marks)

Test tube 1: ……

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Test tube 3: ……

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2. You are provided with specimens **G** and **H**.

(a) With reason identify the organ of the plant the specimens represent. (03marks)

Organ

……

Reason

……

……

Examine the specimens and outline differences between the two specimens.
(04marks)

Part of plant	G	H
Corolla		
Calyx		
Androecium		
Gynoecium		

(c) From the structure of the pistil and stamens suggest the type of pollination which is more likely to occur in specimen **H**. Explain your answer. (03marks)

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(d) Describe how specimen **G** is adopted to its agent of pollination. (03marks)

Agent : ……

Adaptation: ……

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……

(e) Describe the epicalyx of specimen **G**. (02marks)

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(f) Cut specimen **H** longitudinally.

Draw and label one half of the pistil of specimen **H**. (05marks)

3. You are provided with specimens **Q** and **T** which belong to the same class.

(a) Giving three reasons, state the class of specimen **T**. (04marks)

Class: ……

Reason: ……..

……..

……..

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(b) Using a hand lens, observe specimen **T**. State how the structure of the abdomen of specimen T is suited to the habitat of the specimen. (04marks)

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(c) Observe the thorax of both specimens and state three structural differences between the specimens? (03marks)

Specimen Q	Specimen T

(d) From your observation of specimen **T**, state features which make the specimen a good vector. (02marks)

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(e) In the space below, draw and label the abdomen of specimen **T** from the ventral view. State the magnification of the drawing. (7marks)

END