

Name:.....

Centre/ Index No.

School.....

Signature:.....

553/3
BIOLOGY
Practical
PAPER 3
July/August 2017
2¹/₂ hours



WAKISSHA JOINT MOCK EXAMINATIONS

Uganda Certificate of Education

BIOLOGY

(Practical)

Paper 3

2 hours

INSTRUCTIONS TO CANDIDATES:

- This paper consists of **three** questions.
- Answer **all** questions.
- 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		

1. You are provided with solutions A and B which are extracts prepared from different parts of different plant.

- (a) Carryout the tests in the table below to determine the food nutrients present in each extract. Record your observations and deductions. (16 marks)

TEST	EXTRACT	OBSERVATIONS	DEDUCTIONS
(i) To 1cm ³ of extract in a test tube, add 3 drops of iodine solution.	A		
	B		
(ii) To 1cm ³ of extract in a test tube, add 1cm ³ of Benedict's Solution and boil.	A		
	B		
(iii) To 1cm ³ of extract in a test tube, add 1cm ³ of dilute Sodium hydroxide solution, followed by 4 drops of copper (II)sulphate solution and shake.	A		
	B		
(iv) To 1cm ³ of DCIP in a test tube, add the extract drop wise.	A		
	B		

- (b) Suggest the part of the plant from which each extract was prepared. Explain your answer.

(04 marks)

Extract A;

.....

Explanation;

.....

Extract B;

.....

Explanation;

.....

- (c) From your observations in (a) above suggest the function of the part of the plant from which extract A was prepared.

Give a reason for your answer.

(02 marks)

Function;

.....

Reason;

.....

2. You are provided with specimen D and E both obtained from the same animal

- (a) Basing on observable features, identify each specimen. (04 marks)

SPECIMEN	IDENTITY OF SPECIMEN	OBSERVABLE FEATURES
D		
E		

- (b) Giving two reasons, suggest the class of the animal from which specimens D and E were obtained. (02 marks)

Class;

Reasons;

.....

- (c) Explain how the features of specimen E adapt it for its function. (02 marks)

.....

Turn Over

- (d) Observe the two specimens D and E and state four structural differences between them. (04 marks)

SPECIMEN D	SPECIMEN E

- (e) Draw and label the upper region of specimen E. State your magnification. (06 marks)

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

Cut specimen P longitudinally and specimen Q transversally.

(a) Basing on observable features, state the type of fruit each specimen is. (04 marks)

SPECIMEN	TYPE OF FRUIT	OBSERVABLE FEATURE
P		
Q		
R		
S		

(b) (i) Observe specimen Q and describe the arrangement of its seeds. (02 marks)

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(ii) Describe the pericarp of specimen P. (02 marks)

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(c) Describe how the following specimens are dispersed. (04 marks)

Specimen P;

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.....

.....

Specimen S;

.....

.....

.....

Turn Over

(d) (i) Basing on the features of the pericarp only, construct a dichotomous key to identify the specimens P, Q, R and S. (03 marks)

(ii) Draw and label the longitudinal section of specimen P. (05 marks)

- END -