

553/3
BIOLOGY
PRACTICAL
Paper 3
05th Aug 2022
2 Hours

Name :

Signature : Personal No :



KAMPALA WAKISO GIANT SCHOOLS' ASSOCIATION (KWGSA)

National Joint Mock Examination 2022

Uganda Certificate of Education

BIOLOGY PRACTICAL

Paper 3

2 Hours

INSTRUCTIONS TO CANDIDATES

*This paper consists of **three** questions*

*Answer **all** questions*

*Answers **must** be written in the spaces provided*

For Examiners' Use Only	
QUESTION	SCORE
1	
2	
3	
TOTAL	

1. You are provided with specimen **T** which is an animal tissue containing a living ingredient. You are required to determine the nature of the living ingredient in **T** using the following procedure.

Label test tubes **1, 2, 3** and **4** and treat them as follows;

Cut specimen **T** into four cubes each measuring 1cm x 1cm x 1cm and boil one cube for 3 minutes in distilled water.

- In test tube **1** add one whole cube of **T**
- In test tube **2** add one crushed cube of **T**
- In test tube **3** add one whole cube of **T**.
- In test tube **4** add one boiled cube of **T**.

Carry out the following tests using the test tubes above and record your observations and deductions in the table below.

Tests	Observation	Deduction
(i) To test tube 1 , add 2cm ³ of hydrogen peroxide.		
(ii) To test tube 2 , add 2cm ³ of hydrogen peroxide.		
(iii) To test tube 3 , add 2cm ³ of distilled water.		
(iv) To test tube 4 , add 2cm ³ of hydrogen peroxide.		

- (b) Explain your results in; (02 marks)

- (i) Test tube **1**.

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- (ii) Test tube **1**.

.....

(iii) Test tube 1.

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(iv) Test tube 1.

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(c) From the above results, state any **three** conditions being investigated in the experiment above.

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(d) Name the nature of the living ingredient in **T** and state a reason for your answer.

Nature of the ingredient.

Reason.....

.....

2. You are provided with a specimens **X, Y** and **Z** which are obtained from animals. Study them and answer the questions below.

(a) With **two** reasons, for your answer, identify each of the specimens.

(02marks)

Specimen	Identiy	Reason
X		
Y		
Z		

(b) State with a reason the class of the animal where the specimens belong

(i) **X** Class (03 marks)

Reason :

.....

- (ii) **Y and Z** Class
- Reason :
-
- (c) State **two** adaptations of each of the specimen to its functions
- (i) Adaptation of **X** (02 marks)
-
-
- (ii) Adaptation of **Y** (02 marks)
-
-
- (i) Adaptation of **Z** (02 marks)
-
-
- (d) State the function of each of the specimen to the animals where they were obtained (03 marks)
- (i) **X** :
-
- (i) **Y** :
-
- (i) **Z** :
-
- (e) Make a well labeled drawing of specimen **X** and state your magnification. (05 marks)

3. You are provided with specimen **K**, **L** and **M** which are parts of different plant parts.

(a) By giving **two** reasons for your answer in each case, state the plant part where each specimen belong.

Specimen	Plant organ	Reason
K		
L		
M		

(b) (i) State the identity of each of the specimens. (01 mark)

L.....

M.....

(ii) State **two** reasons for the identity of **L**. (01 mark)

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(c) State **two** biological importance of the specimens to the plants for their modifications and state the reasons for your answer in each case. (04 marks)

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(d) State any **three** adaptations of the specimen **K** to its functions (03 marks)

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(e) Describe specimen **M** (02 marks)

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(f) Draw and label specimen **K**. State your magnification. (05 marks)

END