Name:……Stream:……

55/2
BIOLOGY
PRACTICAL
PAPER 2
Nov 2020
2 hours

ST. MARYS' KITENDE

Uganda Certificate of Education

RESOURCEFUL MOCK EXAMINATION 2020

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		
Total		

1. You are provided with specimens P and Q which are animal and plant tissues respectively. Cut out 5 cylinders from specimen Q each 1 cm long. Put one cylinder of Q in boiling water for 5 minutes, and crush one cylinder into a paste. Label 6 test tubes 1, 2, 3, 4, 5 and 6. Put $3cm^3$ of hydrogen peroxide in each of the test tubes 1, 2, 3, 4 and 5 and put $3cm^3$ of distilled water in test tube 6.

a) Carry out the following tests on P and Q using the solutions provided and record your observations and deductions in the table below. (12 marks)

Tests	**Observations**	**Deductions**
i) To test tube 1, add a piece of P.		
ii) To test tube 2, add a cylinder of Q.		
iii) To test tube 3, add the crushed cylinder of Q.		
iv) To test tube 4, add the boiled cylinder of Q.		

v) To test tube 5, add 1cm^3 of hydrochloric acid followed by one of the remaining cylinders of Q.		
To test tube 6, add one cylinder of Q.		

b) Explain the difference in results of test tube 1 and 2. (4 marks)

.....

.....

.....

.....

.....

.....

c) Explain results in; (3 marks)

i) Test tube 3

.....

.....

ii) Test tube 4

.....

.....

iii) Test tube 6

.....

.....

d) What was being investigated about the active ingredient in Q? (2 marks)

.....

.....

.....

.....

2. You are provided with specimens A, B and C obtained from the same animal.

a) i) State three common functions of the specimens to the animal. (3 marks)

.....

.....

.....

.....

ii) How are the specimens adapted to performing those functions stated in (a) (i) above? (3 marks)

.....

.....

.....

.....

b) Give two reasons for the identity of each of the specimens. (4 marks)

i) Specimen B

.....

.....

ii) Specimen C

.....

.....

c) Describe two structural differences between specimens B and C. (2 marks)

Specimen B	**Specimen C**

d) Draw and label the lateral view of specimen A. (8 marks)

3. You are provided with specimen C, T and U which are plant organs.
a) i) Identify specimens T and U. (2 marks)

T: .....

U: .....

ii) Give reasons for your identity in (a) (i) above. (2 marks)
Specimen T

.....

.....

Specimen U

.....

.....

b) Split specimen T longitudinally into two halves. Examine the structure of the specimens and describe how each is adapted to its functions. (5 marks)

Specimen T

.....

.....

Specimen U

.....

.....

c) Using observable features only, give one advantage of specimen U over T,and one advantage of specimen T over U as organs of propagation. (4 marks)
i) Advantage of T over U

.....

.....

ii) Advantage of U over T

.....

.....

d) Draw and label one half of specimen T with the embryo. (7 marks)

END