**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 3cm3 of hydrogen peroxide in each of the test tubes 1, 2, 3, 4 and 5 and put 3cm3 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)

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| --- | --- | --- |
| **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 1cm3 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)

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c) Explain results in; (3 marks)

i) Test tube 3

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ii) Test tube 4

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iii) Test tube 6

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

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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)

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

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

i) Specimen B

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ii) Specimen C

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

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| **Specimen B** | **Specimen C** |
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|  |  |
|  |  |
|  |  |

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

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Specimen U

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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

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Specimen U

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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

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ii) Advantage of U over T

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

**END**