# RESOURCEFUL MOCK 2017

**Uganda Certificate of Education**
**BIOLOGY PAPER 2**
**TIME: 2 HOURS**

**Instructions**
*Attempt all questions*

1. You are provided with material C, peel it and cut four equal cubes each measuring 1cm x 1cm x 1cm. Label 4 test as 1, 2, 3, 4. Add 3cm3 of hydrogen peroxide to test tubes 1, 2, 3, distilled water to test tube 4. Carryout the test on cubes following the instruction in the following table. Record your observation and deduction in the table below. [8mks]

| Tests | Observation | Deduction |
|---|---|---|
| i) To test tube 1 add one whole cube | | |
| ii) To test tube 2 add one cube after cutting it into 16 equal parts. | | |
| iii) To test tube 3 add whole cube after boiling it for 10 minutes. | | |
| To test tube 4 add one whole cube. | | |

b) i. What was being investigated in the tests? [4mks]

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ii. Explain your results in each test tube [4mks]

Test tube 1

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Test tube 2

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2. You are provided with specimen M and N which are fruits.
   a. State the observable features on the specimen to suggest that they are fruits. [2mks]

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   b. State the type of fruit each specimen is, giving reasons in each case. [4mks]
      i) M ……
      Reasons

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      ii) N ……
      Reasons

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   c. Cut both specimens transversely, examine the sections and state five differences between the specimens. [5mks]

| M | N |
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   d. Describe how specimen N is dispersed. [3mks]

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e. Describe how the seeds are attached to the placenta in each specimen.

i) M ……

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ii) N ……

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f. Draw and label a transverse section of specimen M in the space provided. State your magnification. [6mks]

3. You are provided with specimen S and T which belong to the same class.

a. Giving three reasons, state the phylum of the specimens.

Phylum

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Reasons

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b. Using a hand lens, observe specimen T. State how the structure of the head of T is suited for the habitant in which the specimen lives.

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c. Observe the thorax of both specimen S and T and state the structural differences between the thorax of the specimens.

| S | T |
|---|---|
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d. From your observation of specimen S, state the structural characteristic which make the specimen suitable as a vector.

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e. In the space provided, draw and label the thorax of specimen S from the dorsal view. State the magnification of your drawing.

**END**