**Name** …….……………………………………………..…… **Class** …………..

**231/3 Candidate’s Signature** ………………….…...………..

**BIOLOGY**

**Paper 3**

**(Practical) Date** …………………..

**June/ July, 2014**

1¾ hours

**Starehe Boys’ Centre, School and Institute**

**Kenya Certificate of Secondary Education**

**MOCK EXAMINATIONS, 2014**

***Instructions to candidates***

*Write your name and class in the spaces provided above.*

*Sign and write the date of examination in the spaces provided above.*

*Answer* ***ALL*** *questions in the spaces provided.*

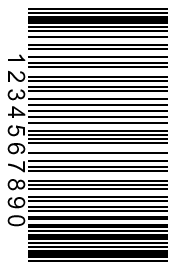
*Additional pages* ***MUST NOT*** *be inserted.*

*Candidates will be penalized for incorrect spelling especially of technical terms and for use of slovenly language*

*You are required to spend the first* ***15 minutes*** *of the* ***1¾hours*** *allowed for this paper reading the whole paper carefully before commencing your work.*

**For Examiner’s Use Only**

|  |  |  |
| --- | --- | --- |
| **Question** | **Maximum**  **Score** | **Candidate’s**  **Score** |
| **1** | **12** |  |
| **2** | **14** |  |
| **3** | **14** |  |
| **Total score** | **40** |  |



***This paper consists of 5 printed pages.***

***Candidates should check the question paper to ascertain that ALL the pages are***

***printed as indicated and no questions are missing***

1. You are provided with specimens labelled **R1** and **R2**. Carefully study the specimens
2. State the common name of specimen **R1 (1 mark)**

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1. **(i)** Name the taxonomic class to which specimen **R1** belongs **(1 mark)**

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1. Give **two** reasons for your answer in **(b)(i)** above **(2 mark)**

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1. Name **two** other organisms in the taxonomic class named in **(b)(i)** above **(1 mark)**

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1. **(i)** Name the taxonomic class to which specimen **R2** belongs **(1 mark)**

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**(ii)** Give **two** reasons for your answer in **(c)(i)** above **(2 marks)**

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1. **(i)** Write down **two** observable differences between specimens **R1** and **R2** **(2 marks)**

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**(ii)** Give **two** other differences between specimens **R1** and **R2** **(2 marks)**

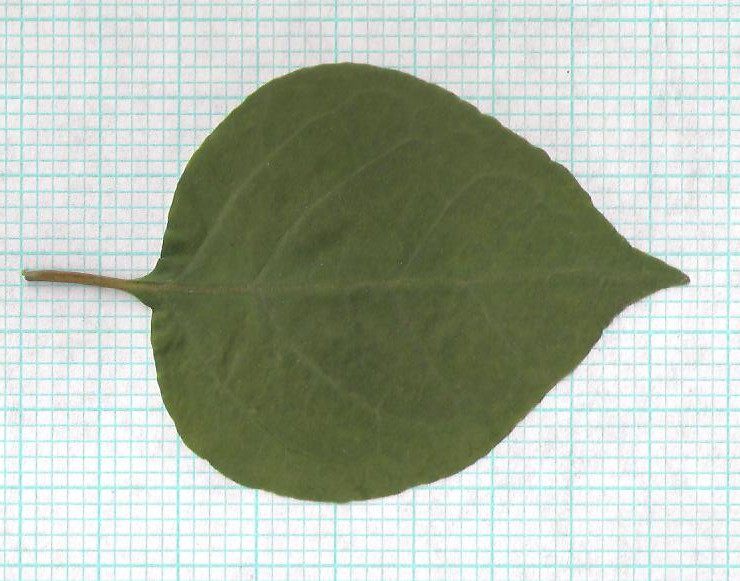
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1. **(a)** Illustrated below is the photograph of the leaf of *Bougainvillea glabra*- the “paper flower plant”,

on a graphical background



**Note**: The thick grid lines are 1cm apart

1. Determine the surface area of the leaf above **(2 marks)**

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1. Briefly describe how you arrived at your answer in **(a)(i)** above **(2 marks)**

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1. Give **three** benefits, to the plant, in having leaves with a large surface area **(3 marks)**

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**(b)** You are provided with specimens labelled **P**, **S1** and **Q**. Carefully study the specimens

1. List **three** features common to the leaves of specimens **P**, **S1** and **Q (3 marks)**

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1. Write down **one** other similarity between the leaves of specimens **P** and **Q (1 mark)**

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1. State **one** difference between the leaves of specimens **S1** and **Q (1 mark)**

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1. Give **two** differences between the leaves of specimens **P** and **Q (2 marks)**

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1. **(a)** You are provided with a solution labelled **D**. Using the reagents and materials provided, carry

out tests to identify the food substances contained in solution **D**. In each case, indicate the

procedure used and record your observation(s) and conclusion, in the table below

**(10 marks)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test** | **Procedure** | **Observation** | **Conclusion** |
|  |  |  |  |
|  |  |  |  |

**(b)** Shown below are the results of a chemical test carried out on crushed specimen **R2**

[](http://en.wikipedia.org/wiki/File:Biuret_Test_2.jpg)

1. Name the reagent that was used in the test whose results are shown above **(1 mark)**

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1. What inference could be made from the results of the experiment whose results are shown above? **(1 mark)**

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1. State **two** nutritional benefits, to man, of the material in **(b)(ii)** above **(2 marks)**

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***This is the last printed page of this paper***