**Name…………………………………………………………………………………………… INDEX No……………………….**

**Student’s Signature…………………………………..**

**Date…………………………………**

**231/3**

**BIOLOGY**

**Paper3**

**(Practical)**

**JULY/ AUGUST 2014**

**1¾ hrs.**

**SUBUKIA SUB- COUNTY JOINT EXAMINATION**

**Kenya Certificate of Secondary Education**

**BIOLOGY**

**Paper3**

**(Practical)**

**JULY 2014**

**1¾ hrs.**

**Instructions**

1. *Write your* ***name*** *and* ***admission number*** *in the spaces provided at the top of this page.*
2. *Sign and write the date of examination in the spaces provided above.*
3. *Answer* ***ALL*** *the questions.*
4. *You are required to spend the first 15 minutes of the 1¾ hours allowed for this paper reading the whole paper carefully before commencing your work.*
5. *Answers* ***MUST*** *be written in the spaces provided in this question paper.*
6. *Additional pages* ***MUST NOT*** *be inserted.*
7. ***This paper consists of five (5) printed pages.***
8. ***Check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.***

**For Examiner’s Use Only**

|  |  |  |
| --- | --- | --- |
| **Question** | **Maximum Score** | **Candidate’s Score** |
| 1 | 09 |  |
| 2 | 16 |  |
| 3 | 15 |  |
| **Total Score** | **40** |  |

1. You are provided with solution **S**, Iodine solution (Solution A), Benedict’s solution (solution B), Sodium Hydroxide Solution (NaOH) (Solution C) and Copper Sulphate solution (Solution D). Carry out the tests as indicated in the table below. *(9 mks)*

|  |  |  |  |
| --- | --- | --- | --- |
| **Test** | **Procedure** | **Observations** | **Conclusion** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

1. Study the specimens provided below.



1. Name the parts labeled **U1**, **W1**, **W2** and **W3**. *(4 mks)*

U1

…………………………………………………………………………………………………………………………………………………..…

W1

…………………………………………………………………………………………………………………………………………………..…

W2

……………………………………………………………………………………………………………………………………………………..

W3

...........................................................................................................................................................

1. (i) Suggest the mode of dispersal of the specimen labeled **U**. *(1 mk)*

……………………………………………………………………………………………………………………………………………………..

 (ii) Give a reason for your answer in (b) (i) above. *(1 mk)*

……………………………………………………………………………………………………………………………………………………

1. (i) Suggest the mode of dispersal of the specimen labeled **X**. *(1 mk)*

……………………………………………………………………………………………………………………………………………………

 (ii) Give a reason for your answer in (c) (i) above. *(1 mk)*

……………………………………………………………………………………………………………………………………………………..

1. On the specimen **V**, label the mesocarp and placenta. *(2 mks)*
2. State ***two*** advantages of dispersal in plants. *(2 mks)*

…………………………………………………………………………………………………………………………………………………..…

……………………………………………………………………………………………………………………………………………………..

1. State the type of placentation of specimen **U**, **V** and **W**. *(3 mks)*

**U**

…………………………………………………………………………………………………………………………………………………..…

**V**

…………………………………………………………………………………………………………………………………………………..…

**W**

………………………………………………………………………………………………………………………………………………….....

1. What is parthenocarpy? *(1 mk)*

…………………………………………………………………………………………………………………………………………………..…

……………………………………………………………………………………………………………………………………………………..

3.You are provided with the specimens below.





1. Giving reasons, state the classes in which specimens **K**, **L** and **M** belong. *(6 mks)*

Specimen **K**

……………………………………………………………………………………………………………………………………………………

Reason

……………………………………………………………………………………………………………………………………………………

Specimen **L**

……………………………………………………………………………………………………………………………………………………

Reason

……………………………………………………………………………………………………………………………………………………

Specimen **M**

……………………………………………………………………………………………………………………………………………………

Reason

……………………………………………………………………………………………………………………………………………………

1. Specimen **N**, **P** and **Q** represent life stages of insects. Identify the specimens. *(3 mks)*

**N**

…………………………………………………………………………………………………………………………………………………..…

**P**

…………………………………………………………………………………………………………………………………………………..…

**Q**

……………………………………………………………………………………………………………………………………………………..

1. Give ***two*** reasons why specimen **N** represents a very important life stage in insects. *(2 mks)*

…………………………………………………………………………………………………………………………………………………..…

……………………………………………………………………………………………………………………………………………………..

1. Give ***one*** way in which specimen **M** differs from specimen **O**. *(1 mk)*

……………………………………………………………………………………………………………………………………………………..

1. On specimen **N**, label the head and prolegs. *(2 mks)*
2. Give ***one*** way in which specimen **K** is a health hazard. *(1 mk)*

……………………………………………………………………………………………………………………………………………………..