**NAME…………………………………………………………………………INDEX NO……………..**

**DATE……………………………………………………CANDIDATES SIGNATURE……………….**

**BIOLOGY**

**233/3**

**PRACTICAL**

**1HR 45MINS**

**3KNT ALLIANCE JOUNT EXAMINATIONS – 2017**

**FORM FOUR**

**FOR EXAMINERS USE ONLY**

|  |  |  |
| --- | --- | --- |
|  **QUESTION** | **MAX. SCORE** | **CANDIDATES SCORE** |
| **1****2****3****TOTAL SCORE** | **14****13****13****40** |  |

 **Answer all the question in the spaces provided.**

1.a) Using the reagents provided, test for food present in suspension W. Complete the table below. (12mks)

|  |  |  |  |
| --- | --- | --- | --- |
| **Food substance** | **Procedure** | **Observation** | **Conclusion** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

b)i) State the purpose of hydrochloric acid in the experiment. (1mk)

ii) Stat the purpose of sodium hydrogen carbonate in the experiment. (1mk)

2.

i) Suggest the type of food eaten by organisms with parts labeled A, B, C and F. Give a reason in each case.

 A
 Food

 Reason (1mk)

 B

 Food

 Reason (1mk)

 C

 Food

 Reason (1mk)

 D

 Food

 Reason (1mk)

ii) With reasons suggest the likely habitat of the organisms from which the parts labeled D and E were obtained. (4mks)

 **Part Habitat Reasons**

D

 E

b)i) Suggest the type of evolution that is exemplified by the organisms labeled D, E and F. Give a reason for your answer. (2mks)

 Type of evolution

 Reason

ii) Suggest the significance of the above named type of evolution for the organism. (1mk)

c)i) Define the term vestigial organs. (1mk)

ii) Give an example of a vestigial organ in human being. (1mk)

3.a)

i) Name the class of plants from which specimen A1 and B1 were obtained. (1mk)

 A1

 B1

ii) Outline three differences between the two stems. (3mks)

iii) Suggest the agent of pollination of the flowers of specimen A and give a reason for your answer. (2mks)

b) The photograph below shows parts of specimen labeled G5

i) Identify specimen G5. (1mk)

ii) Name the parts labeled G6, G7 and G8. (3mks)

 G6 –

 G7 –

 G8 –

iii) State one function of the part labeled G8 in specimen G5. (1mk)

iv) State two adaptations of specimen G5 to its functions. (2mks)