**NAME………………………………………………………….. ADM. NO……………………**

**ITETANI GIRLS’ HIGH SCHOOL**

**P.O. BOX 2220 – 90100**

**MACHAKOS**

**TERM ONE, 2018**

**FORM TWO**

**BIOLOGY**

*Answer all the questions in the spaces provided*

2. The table below shows the number of stomata on the upper side and the underside of leaves from different plants:

|  |  |  |
| --- | --- | --- |
| **PLANT** | **UPPER SIDE** | **UNDER SIDE** |
| A | 16 | 17 |
| B | 20 | 2 |
| C | 3 | 17 |

1. Describe the habitat of each of the three plants. (3 Marks)

A-………………………………………………………………………….

B-………………………………………………………………………….

C-………………………………………………………………………….

1. Describe how the feature above is advantageous to Plant B and C shown above. (4 Marks)

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1. Explain how the cuticle controls transpiration rate in plants. (2 Marks)

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1. What are hydathodes? (1 Mark)

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2. Explain three ways in which the phloem tissue is adapted to perform its functions. (3 Marks)

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1. Study the diagram below and answer the questions that follow:

Stem of a woody plant (Bark intact)

Region (i)

Bark removed

Region (ii)

Bark intact

1. Describe the appearance of region (i) after five days. (1 Mark)

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1. Give a reason for your answer in b) i) above. (2 Marks)

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1. Explain why after some time, the plant shown above dries (2 Marks)

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1. Explain why the stems of some plants appear green in colour. (2 Marks)

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2. The graph below shows rate of enzymatic action against concentration of substrate:

C

B

A

1. Account for the shape of the graph from Point A to Point C (5 Marks)

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1. Describe how you would increase the rate of enzymatic action further after Point B. (1 Mark)

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1. In a practical lesson, Form one students prepared a set up as described below.

**TEST TUBE A**

STARCH + AMYLASE + DILUTE HYDROCHLORIC ACID

**TEST TUBE B**

STARCH + AMYLASE + MAGNESIUM HYDROXIDE

**TEST TUBE C**

STARCH + AMYLASE + DISTILLED WATER

1. Write an equation for the reaction in Test tube C (1 Mark)
2. State the test tube in which no reaction occurred. Give a reason for your answer. (2 Marks)

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1. What is the role of magnesium hydroxide in Test tube B? (1 Mark)

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