END OF TERM TWO EXAM

FORM 3 BIOLOGY P3

231/3

NAME…………………………………………………………………..ADM NO…………CLASS…….

1. You are provided with:-

 - Soaked maize grains

 - A piece of liver

Using pestle and mortar, grind maize grains into a soft pulp. Add 10ml of distilled water. Mix thoroughly then filter into a test tube and label it A. Repeat the procedure for a piece of liver and put the filtrate into test tubelabelled B.

Follow the procedure and complete table 1 below.

a) (i) Table 1 (2 mks)

|  |  |
| --- | --- |
|  | Observation |
| Add 2ml of hydrogen peroxide into 1ml of filtrate A |  |
| Add 2ml of hydrogen peroxide into 1ml of filtrate B |  |

 (ii) Comment on your results (4 mks)

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 b) Using the reagents provided, test for the food substance in the remaining filtrate A. (6mks)

|  |  |  |  |
| --- | --- | --- | --- |
| **Food tested** | **Procedure**  | **Observation**  | **Conclusion**  |
|  |  |  |  |

State the importance of carbohydrates in the human body (1mk)

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1. Study the diagrams of fruits below

 

a) Name the type of fruit shown by P and Q (2mks)

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b) State the type of dispersion used by fruit M, K and N. Give adaptation for each of them (6mks)

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d) State the type of placentation shown by diagram Q and L (2mk)

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e) State the significance of fruit and seed dispersal (1mk)

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f) Describe the main differences between entomophilous flowers and anemophilous flowers (3mk)

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1. The diagram below shows a photomicrograph of a transverse section of a young cowpea stem.

K

Z

M

L

Q



1. Name the structures labelled K, L and Q. (3 mks)

K……………………………………………………………

L…………………………………………………………….

Q…………………………………………………………………..

1. State the functions of the parts labelled Z and M. (2 mks)

Z…………………………………………………………………..

M……………………………………………………………………

1. The magnification of the photomicrograph is X50. Determine the actual diameter of the section in micrometers. (Show your working) (3 mks)
2. a) State how the functioning of the phloem tissue is affected if the companion cell is destroyed. (1mk)

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b) Give a reason for your answer in iv (a) above. (2mk)

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1. In what ways is the drooping of leaves observed on hot days advantageous to the plant? (2mks)

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