**Name**…………………………………… ………………………Index No:……………………

School:………………………………………………………..Adm No…………..STREAM…..

231/3

**BIOLOGY**

Paper 3

(Practical)

MARCH-2019

**Time: 1 ¾ Hours**

**BURAMU1 JOINT EXAMINATION-2019**

Kenya Certificate of Secondary Education

**INSTRUCTIONS TO CANDIDATES**

* Answer ***all*** the questions in the spaces provided.
* You are required to spend 15 minutes of the 1 ¾ hours allowed for this paper reading the whole paper carefully before commencing your work.
* Answer must be written in the spaces provided.
* Additional pages must not be inserted.

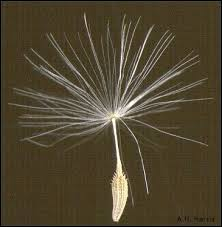
**For Examiners Use Only**

|  |  |  |
| --- | --- | --- |
| **Question** | **Maximum score** | **Candidate’s score** |
| 1 | 12 |  |
| 2 | 16 |  |
| 3 | 12 |  |
| TOTAL | 40 |  |

1. You are provided with an extract labeled **T**. using the reagents provided, test for the various food substances. Fill the table below. (12 marks)

|  |  |  |  |
| --- | --- | --- | --- |
| **Food Tested** | **Procedure** | **Observation** | **Conclusion** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

1. The photographs below show fruits of different plants.



**B**

**A**

**D**

**C**

**F**

**E**



**G**

1. From the appearance of the structures, categorise the fruits according to their mode of dispersal. Give reasons for your answer in each category.
2. Dispersal by wind: (1 mark)

………………………………………………………………………………………………

Reason: (1mark)

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

1. Dispersal by Animals: (1mark)

…………………………………………………………………………………………….

Reasons: (2marks) ………………………………………………………………………………………………………………………………………………………………………………………………

1. Dispersal by water: (1mark)

………………………………………………………………………………………………

Reason: (1mark) …………………………………………………………………………………………….

1. Self dispersal: (1mark)

……………………………………………………………………………………………..

Reason: (1mark) ……………………………………………………………………………………………..

1. State the type of fruit represented by specimen **A, C** and **G**. (3marks)

**A**: …………………………………………………………………………………………….

**C**: …………………………………………………………………………………………….

**G**: ……………………………………………………………………………………………

1. What are the advantages to a plant of an effective method of seed dispersal? (2marks) ……………………………………………………………………………………………………………………………………………………………………………………………..
2. State **two** ways in which specimen **F** is adapted to its mode of dispersal. (2mks)

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

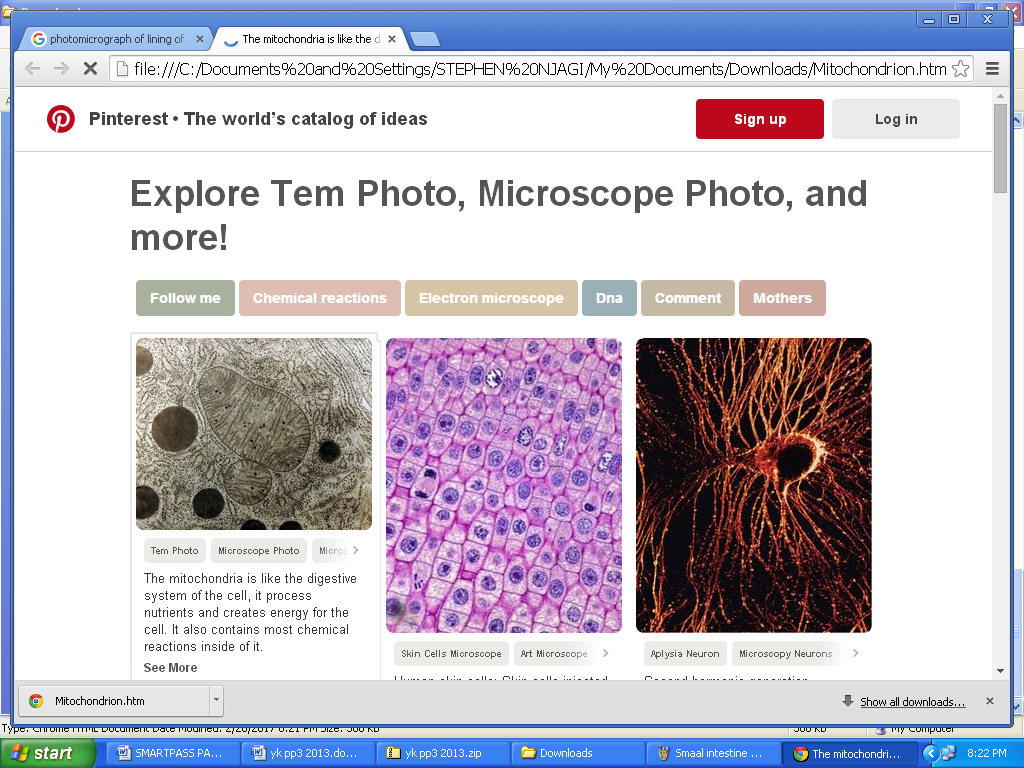
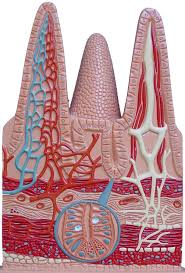
1. Below are photographs of a section of a mammalian alimentary canal. Study it and answer the following questions.

**D**

**Photograph Q**

**Photograph P**



E

**Photomicrograph of cells of lining of parts D**

**Diagram of parts D showing blood supply**

1. Identify the section represented in the two photographs. (1 mark) ………………………………………………………………………………………………..
2. Name the parts marked **D** and **E** (2marks)

**D**: ………………………………………………………………………………………….

**E**: ………………………………………………………………………………………….

1. (i) State the function of the parts labeled **D.** (1mark) ……………………………………………………………………………………………….
2. How is the part labeled **D** adapted to its function you have stated in (c)(i) above?

(3 marks)

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

1. Suggest **one** role of the cell from which the photomicrograph was taken, on the basis of the structure **E** highlighted on the photomicrograph. (1 mark)

………………………………………………………………………………………………

1. Draw a well labelled diagram the part labelled**D** in the space provided. (4marks)