**Name……………………………………… Index No………………..… Sign…………….…..**

 **Date………...............**

**233/3**

**BIOLOGY**

**PAPER 3 (PRACTICAL)**

**TERM 3 2021**

**Time: 1 Hour 45 Minutes**

## INSTRUCTIONS TO CANDIDATES

1. **Write your name and index number in the spaces provided.**
2. **Sign and write the date of examination in the spaces provided.**
3. **Answer ALL the questions in the spaces provided in the question paper**
4. **Spend the first 15 minutes of the time allowed for this paper reading the whole paper before commencing your work.**
5. **ALL working MUST be clearly shown where necessary**

**FOR EXAMINER’S USE ONLY**

|  |  |  |
| --- | --- | --- |
| **QUESTION** | **MAXMUM SCORE** | **CANDIDATE’S SCORE** |
| 1 | 14 |  |
| 2 | 13 |  |
| 3 | 13 |  |
| **TOTAL** | 40 |  |

**1**. a) You are provided with substances labeled **M, N, V, U** and **X** and a filter paper. **M** and **N** are food substances, while **V** is Benedict’s solution, **U** is 10% Sodium Hydroxide solution and **X** is 1% Copper Sulphate solution. Using the reagents provided, carry out tests determine the food substance(s) in **M** and **N** (10 marks)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Substance** | **Food Substance Being Tested For** | **Procedure** | **Observation** | **Conclusion** |
| **M** |  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| **N** |  |  |  |  |
|  |  |  |  |
|  |  |  |  |

a).State the functions of the food substances found in both **M** and **N**. (4marks)

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

**2**.Below are sections of a dicotyledonous plant organs labeled **X** and **Y**.



(a) Give **three** observable differences between the sections. (3 marks)

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

(b) On the diagram, label any **three** parts of section Y. (3 marks)

(c) Identify and state the functions of the parts labeled **A** and **B**. (4 marks)

**A** ……………………………………………………….

Function……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

**B** ………………………………………………………

Function……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

(d) How would section **X** compare with that of a monocotyledonous plant? (3 marks)

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

3. Study the diagrams of fruits below

 

a) Name the type of fruit shown by P (1mks)

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

c) Draw a well labeled diagram of diagram L (5mks)

d) State the type of placentation shown by diagram Q (1mk)