**NAME: ………………………………………….……… ADM NO: .........................................CLASS…………**

**DATE…………………………………………........... SIGN……………………………………………………….**

**231/3**

**BIOLOGY**

**PAPER 3**

**PRACTICAL**

**TIME: 1 ¾ HOURS**

**FORM FOUR MURANG’A EAST EXAMINATION-**

**2021**

*Kenya Certificate of Secondary Education( K.C.S.E.)*

**Instructions to candidate**

* **Answer ALL questions**
* **You are required to spend the first 15 min of 13/4 hours allowed for this paper reading the whole paper before carefully before commencing your work.**
* **Answer must be written in the spaces provided in the question paper**
* **Don’t insert additional page /paper**

|  |  |  |
| --- | --- | --- |
| **QUESTIONS** | **MAXIMUM SCORE** | **CANDIDATE SCORE** |
| **1** | **13** |  |
| **2** | **13** |  |
| **3** | **14** |  |
| **TOTAL** | **40** |  |

1. You are provided with specimens labelled **A** and **B**. Examine the specimens and answer the questions that follow.

(a) With a reason state the type of germination in each of the specimens. (4 marks)

Specimen **A**. Type of germination: ......................................................................................

Reason: ...............................................................................................................................

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Specimen **B**. Type of germination: ......................................................................................

Reason: ...............................................................................................................................

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

(b) Draw a well labelled diagram of specimen **B**. (5 marks)

(c) Using observable features only state the class to which each of the specimens belongs. (4 marks)

Specimen **A**. Class: .............................................................................................................

Reason: ...............................................................................................................................

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Specimen **B**. Class: .............................................................................................................

Reason: ...............................................................................................................................

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Q2.You are provided with a specimen labeled **T** which is a fruit. Use it to answer the questions that follow.

1. Make a **transverse** section of the specimen **T**. Draw and label at least 3 parts. 6mks
2. With reasons, state the identity of fruit **T.**

Type of fruit………………………………………………………………………..1mk

Reason …………………………………………………………………………………1mk

1. Suggest the possible agent of dispersal and give **two** reasons

Agent …………………………………………………………………………………1mk

Reason ……………………………………………………………………………………………………………………………………………………………………………………

2mk

1. What is the placentation of **T**? …………………………………………………….1mk
2. Specimen **T** was green in colour before it was treated with a plant hormone.

Suggest the plant hormone.

………………………………………………………………………………………1mk

3. You are provided with a specimen labeled N. Squeeze the contents of N into the test tube. Add of water and shake the contents. Reserve the piece of intestine for question (b)

a)Use the reagents provided to test for the presence of various food substances in N extract. Record your observations in the table below (6mks)

|  |  |  |  |
| --- | --- | --- | --- |
| Food substance tested | Procedure | Observation | Conclusion |
|  |  |  |  |
|  |  |  |  |

b)Account for the results obtained in (a) above. (2marks)

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c)Cut specimen N along its length to expose the inner surface (2marks)

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………i) Compare the inner and outer surface of the specimen. Record your observations. (2marks)

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ii)Account for your observation of the inner surface. (2marks)

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