**Candidate's Name:** .....

**Signature:** .....

| Random No. | | | | | Personal No. | | |
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| | | | | | | | |

(*Do not write your School / Centre Name or Number anywhere on this booklet.*)

**P515/3**
**PRINCIPLES AND PRACTICES OF AGRICULTURE**
**Paper 3**
**(Practical)**
**Nov./Dec. 2024**
2 hours

# UGANDA NATIONAL EXAMINATIONS BOARD

## Uganda Advanced Certificate of Education

PRINCIPLES AND PRACTICES OF AGRICULTURE

**Paper 3**
**(Practical)**
2 hours

**INSTRUCTIONS TO CANDIDATES:**

*This paper consists of* **five** *questions.*

**All** *questions are* **compulsory**.

**All** *answers should be written in the spaces provided.*

| For Examiners' Use Only | | |
|---|---|---|
| **Question** | **Marks** | **Examiner's Signature & No.** |
| **1** | | |
| **2** | | |
| **3** | | |
| **4** | | |
| **5** | | |
| **Total** | | |



**Turn Over**

(d) Give the field conditions that would ensure good performance of the specimen which is suitable for planting. *(03 marks)*

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**2.** You are provided with specimens **X** and **Y** which are parasites of farm animals. Using a hand lens, observe each specimen and answer the questions that follow.

(a) Basing on the observable features of each specimen, suggest with a reason the type of parasite each specimen is. *(03 marks)*

**X** .....

Reason .....

.....

**Y** .....

Reason.....

.....

(b) Describe how the observed features of each specimen enable it to be successful as a parasite. *(02 marks)*

**X** .....

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**Y** .....

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(c) Basing on the observable features on specimen **Y**, suggest how it would affect its host. *(01 mark)*

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(d) State **two** control measures for each of the specimens **X** and **Y**. *(04 marks)*

**X** .....

.....

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**Y** .....

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**3.** Specimens $H_1$, $H_2$ and $H_3$ are simple machines commonly used on a farm.

(a) Giving a reason in each case, state the class of lever to which each specimen belongs. *(4½ marks)*

| Specimen | Class of lever | Reason |
|---|---|---|
| $H_1$ | | |
| $H_2$ | | |
| $H_3$ | | |

(b) State **two** farm activities where each of the specimens is used.

$H_1$ ..... *(1½ marks)*

$H_2$ .....

$H_3$ .....

(c) How are specimens $H_1$ and $H_3$ designed for their respective functions? *(02 marks)*

$H_1$ .....

.....

.....

$H_3$ .....

.....

.....

(d) Suggest **two** maintenance practices that should be carried out on each of the specimens $H_1$ and $H_2$. *(02 marks)*

$H_1$ .....

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$H_2$ .....

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**4.** You are provided with specimens $E_1$, $E_2$, $E_3$, $E_4$ and $E_5$ which are planting materials. Observe them carefully and answer the questions that follow.

(a) Comment on the suitability of each specimen for planting. Give a reason in each case. *(05 marks)*

$E_1$ .....

Reason .....

$E_2$ .....

Reason .....

$E_3$ .....

Reason .....

$E_4$ .....

Reason .....

$E_5$ .....

Reason .....

(b) Give **one** advantage of using specimen $E_1$ over specimen $E_2$ as a planting material. *(01 mark)*

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(c) Describe the procedure for planting specimen $E_3$. *(04 marks)*

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1. You are provided with specimens $D_1$ and $D_2$ which are seeds.

(a) Split specimen $D_1$ into two halves without damaging the embryo and place the halves on the filter paper provided. Add a drop of tetrazolium salt on the surface of the half that has the embryo and observe what happens. Record your observations in table 1. Repeat the procedure with specimen $D_2$.

**Table 1** *(01 mark)*

| Specimen | Observation |
|---|---|
| $D_1$ | |
| $D_2$ | |

(b) What conclusions can you draw about the suitability of each specimen for planting? *(02 marks)*

| Specimen | Suitability for planting |
|---|---|
| $D_1$ | |
| $D_2$ | |

(c) Suggest **four** possible causes of the condition that has made one of the specimens unsuitable for planting. *(04 marks)*

(i) .....

.....

(ii) .....

.....

(iii) .....

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(iv) .....

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(c) (i) Which one of the four specimens is the most difficult to control? Give **two** reasons for your answer. *(02 marks)*

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(ii) Based on the reasons you have given in (c)(i), suggest **two** effective methods of controlling the specimen. *(02 marks)*

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**END**

5. Specimens **P, Q, R** and **S** are common weeds. Observe them and answer the following questions:

(a) Classify the specimens according to their life span. *(02 marks)*

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(b) Suggest **one** method of propagation for each specimen. Give a reason in each case. *(04 marks)*

**P**.....

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**Q**.....

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**R**.....

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**S**.....

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