Name of School:…………………………………………………………………………………………………

Candidate’s Name:………………………………………………………………….…………………….……

Centre No./Index No: ………………………………………..…………. Signature:……………..……

**P515/3**

**AGRICULTURE PRACTICAL**

**Paper 3**

**July/August**

**2 Hours**



**ELITE EXAMINATION BUREAU MOCK 2019**

**Uganda Advanced Certificate of Education**

**PRINCIPLES AND PRACTICESOF AGRICULTURE**

**Paper 3**

**2 Hours**

**INSTRUCTIONS TO CANDIDATES**

* This paper consists of **five** questions.
* Answer **all** questions
* ***All*** *answers should be written in spaces provided.*

|  |  |  |
| --- | --- | --- |
| **For Examiners’ Use Only** | | |
| **Numbers** | **Marks** | **Examiner’s Comment** |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |
| **Total** |  |  |

**Turn Over**

1. You are provided with plant tissue A. Using a cork borer, make cylinders from A cutting each 3 cm long of same diameter.

Place each cylinder of plant tissue in a test tube containing 5cm3 of solutions A1 to A 8 separately. Solutions A1 to A8 are of different concentrations from 0%, 5%, 10%, 15%, 20%, 25%, 30% and 35% respectively.

Leave the experiment for 30minutes.

1. After 30 minutes remove the plant tissue from solutions and record your observations in the table below; (03 marks)

|  |  |  |
| --- | --- | --- |
| Specimen from solution | final length cm | Change in length (cm) |
| A1 |  |  |
| A2 |  |  |
| A3 |  |  |
| A4 |  |  |
| A5 |  |  |
| A6 |  |  |
| A7 |  |  |
| A8 |  |  |

1. Plot a graph showing variation in length of plant tissues against concentration of the solutions.
2. (i) What physiological process is under investigation in the above experiment

in (b), (½mark)

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(ii) Briefly explain the shape of the curve. (02 marks)

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1. Outline 2 reasons why the physiological process is essential in plant life? (01 mark)

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1. Specimens B, C, D and E are parts of a primary tillage implement.

(a) (i). Identify the implement to which the specimens belong. (01 mark)

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(ii). To which level of Agriculture mechanization does the specimen identified in a (i) belong? (01 mark)

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(b). Identify each specimen (02 marks)

B.................................................................................................................

C.................................................................................................................

D.................................................................................................................

E.................................................................................................................

(c). Briefly state the function of each specimen (02 marks)

B.................................................................................................................

C......................................................................................................................................

D.....................................................................................................................................

E......................................................................................................................................

(d). Briefly explain how any one major feature observed assist each of the specimen to carry out the stated function in 2 (c) above (04 marks)

B.................................................................................................................

C.................................................................................................................

D.................................................................................................................

E.................................................................................................................

1. (a)Classify the specimens J, K, L, M and N into two groups according to their similarity in terms of nutrient composition. (02 marks)

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(b) (i) Suggest the best combination of the specimens J, K, L, M and N in pasture production (01 mark)

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(ii) Give reasons for your choice of combination in b(i) above (03 marks)

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(c)(i) Which two specimens are most suitable for zero grazing?(01 mark)

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(ii) Give one observable feature that makes them more suitable. (01 mark)

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(d) State any two advantages of feeding the specimens J to N to cattle. (02 marks) (i)……………………………………………………………………………………………………………………………………………………………………………………………………………………………

(ii)……………………………………………………………………………………………………………………………………………………………………………………………………………………………

1. You are provided with specimens **P** and **Q** which are plant parts attacked by pest and diseases.

(a). Observe the specimens and state the damages observed on each specimen (02 marks) P………………………………………………………………………………………………………………………………………………………………………………………………………………………………

Q……………………………………………………………………………………………………………………………………………...……………………………………………………………………………

(b) Suggest the cause of each damage observed on each specimen. (02 marks)

P………………………………………………………………………………………………………………………………………………………………………………………………………………………………

Q……………………………………………………………………………………………………………………………………………...……………………………………………………………………………

(c). Suggest the effect of each observed damage on the crop. (02 marks)

P………………………………………………………………………………………………………………………………………………………………………………………………………………………………

Q……………………………………………………………………………………………………………………………………………...…………………………………………………………………………… (d). Suggest two cultural methods of controlling each observed damage on the specimen. (02 marks)

P…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

Q……………………………………………………………………………………………………………………………………………...…………………………………………………………………………………………………

1. Specimens **S**, **T, U**, and **V** are important specimens in Honey harvesting.

(a) Examine the specimens and state the name of each as used in honey harvesting. (02 marks) S.................................................................................................................

T.................................................................................................................

U.................................................................................................................

V.................................................................................................................

(b). Describe how the specimens **S**, **T, U**, and **V** are used together to obtain honey from a Bee hive (04 marks)

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(c). Briefly explain how specimen **V** enables a farmer to extract honey from the hive. (02 marks)

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(d). Suggest any four factors that may affect the quality of honey harvested from a hive**.** (02 marks)

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**END**