

Candidate's name.....index number.....

**P525/3**

**Principles and practices of**

**Agriculture**

**Paper 3**

**INTERNAL MOCKS EXAMINATIONS 2019**  
**Uganda Advanced Certificate of Education**  
**PRINCIPLES AND PRACTICES OF AGRICULTURE**  
**Paper 3 (written practical)**  
**2 hours.**

**Instructions to candidates,**

This paper consists of five questions.

Answer **all** questions

<b>FOR EXAMINERS USE ONLY</b>		
Questions	Marks	Initials
1		
2		
3		
4		
5		
Total		

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

Place each cylinder of plant tissue in a test tube containing equal amount of solutions A<sub>1</sub> to A<sub>8</sub> separately.

Leave the experiment for 30 minutes.

- (a) Remove the plant tissue from solutions and record your observations in the table below; (03 marks)

Specimen from solution	Initial length cm	Final length cm
A <sub>1</sub>		
A <sub>2</sub>		
A <sub>3</sub>		
A <sub>4</sub>		
A <sub>5</sub>		
A <sub>6</sub>		
A <sub>7</sub>		
A <sub>8</sub>		

(b) Plot a graph showing variation in length of plant tissues with solution concentration. (3½marks)

(c) (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 from the plotted graph. (02marks)

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

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2. You are provided with specimen Q which is part of the farm animal.

(a) Observe the specimen and identify the undesirable features on it. (2½marks)

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(b) Suggest the cause of each undesirable feature on the specimen. (2½marks)

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(c) State how each of the identified features on Q affect the quality of the specimen. (05 marks)

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3. Examine the specimens B, C, D, E and F carefully and answer the questions that follow.

(a) Describe how the specimens examined are suited for their functions. (04marks)

B.....

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C.....

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D.....

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E.....

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F.....

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(b) Describe how the specimens B,C,D, and E can be used to produce suitable pieces of F for construction of a feeder. (02marks)

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(c) Suggest possible problems encountered in the use of specimens B, C, D and F. (02marks)

B.....

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C.....

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D.....

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F.....

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(d) How can specimens B, C, D, and E be maintained in good working conditions? (02marks)

B.....

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C.....

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D.....

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E.....

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4. You are provided with specimens J, K, L, M, N and O which are pasture plants.

(a) Examine and give any 2 common features of specimens K and M. (02marks)

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Specimens N and O. (02marks)

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(b) (i) Suggest the lifespan of specimen J and give a reason why it should be included among pastures. (02marks)

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(ii) Give the method of propagating specimens J, K, L and M.

J.....

K.....

L.....

M.....

(c) What qualities make specimens J and N suitable for use as livestock feeds?

(02marks)

J.....

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N.....

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5. You are provided with specimens M<sub>1</sub>, M<sub>2</sub>, M<sub>3</sub>, M<sub>4</sub> and M<sub>5</sub> which are components of a tractor engine.

(a) Observe specimens and state with a reason the type of engine to which they belong.

(02marks)

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(b) Describe order how specimens M<sub>1</sub>, M<sub>2</sub>, M<sub>3</sub> and M<sub>4</sub> work together to ensure performance of a tractor.

(04marks)

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(c)Observe specimen M<sub>4</sub> and state 2 features that enable it to function efficiently. (02marks)

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(d)Suggest 4 ways of ensuring durability and efficiency of M<sub>1</sub>. (02 marks)

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**END**

**Uganda Advanced Certificate of Education**  
**Principles and practices of Agriculture paper 3(P515/3)**  
**Internal mock examinations 2017**

**Instruction sheet**

A                    Potato tubers

A<sub>1</sub>                0%Nacl

A<sub>2</sub>5%Nacl

A<sub>3</sub>10%Nacl

A<sub>4</sub>                15%Nacl

A<sub>5</sub>    20%Nacl

A<sub>6</sub>    25%Nacl

A<sub>7</sub>    30%Nacl

A<sub>8</sub>    35%Nacl

B                   G- clamp/sash clamp

C                   Hand saw

D                   Smoothing plane

E                   Tape measure

F                   piece of timber

M<sub>1</sub>    Tractor battery with wire at terminals

M<sub>2</sub>    Ignition coil

M<sub>3</sub>    Distributor

M<sub>4</sub>Spark plug

M<sub>5</sub>Insulated clean wire

J                   Calliandria

K                   Green leaf desmodium

L                   Guinea grass

M                   Lablab

N                   Congo signal

O    Thatching grass

Q                   skin/hide, folded with holes, hair slip damage,

Cowdung, soil, meat pieces and fats.

Also provide test tubes each, cork borers.

**END**