Name: ……

Centre/Index No. ……

Signature: ……

P515/3
PRINCIPLES
AND
PRACTICES OF
AGRICULTURE
Paper 3
PRACTICAL
[redacted]
2 hours

Uganda Advanced Certificate of Education

[redacted]

Principles and Practices of Agriculture

PRACTICAL

Paper 3

2 hours

INSTRUCTIONS TO CANDIDATES

Answer **all** *the questions.*

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

No *extra answer sheet. Be neat and use pencil for drawings.*

For Examiner's Use Only		
Question	**Marks**	**Examiner's Number and Signature**
1.		
2.		
3.		
4.		
5.		
Total		

Turn Over

1. You are provided with specimens ***A*** and *B***.**

(a) (i) What are the specimens commonly used for in crop production?

(01 mark)

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(ii) Describe the procedure of using the specimens in a vegetable garden.

(04 marks)

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(b) (i) State the importance of using this specimen as described in (a) (ii) above in vegetable growing.

(03 marks)

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(ii) Outline **four** problems associated with the use of specimen *A* in a garden of bananas.
(02 marks)

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2. Specimens C_1, C_2, C_3, and C_4 are livestock parasites.

(a) (i) Describe the features of each parasite.
(02 marks)

C_1

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C_2

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C_3

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C_4

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Turn Over

(ii) State adaptations of specimens that make them suitable to live parasitic life. (02 marks)

C_1

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C_2

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C_3

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C_4

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(b) (i) Pair the parasites according to mode of attack of the host animal. (01 mark)

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(ii) Give **two** effects of each pair.

(02 marks)

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(c) (i) Suggest **two** control measures for each pair of the parasites in (b) above. (02 marks)

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(ii) Outline **one** sign of infestation of each pair.

(01 mark)

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3. You are provided with specimens D, and E,which are dry soil samples obtained from different fields.

(a) (i) Using thumb method, describe the textural class of each specimen.

(01 mark)

D

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E

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Turn Over

(ii) Which type of soil is (01 mark)

D

.....

E .....

(b) (i) Measure soil samples D and E. Weigh $60g$ of each and pour in $100cm^3$ measuring cylinder record the volume. Measure water that can top up to make $100cm^3$ soil + water = $100cm^3$ before mixing, pour the measured water into the soil and stir until no more bubbles are seen. Record you results in the table below.

(02 marks)

Specimen	**Weight of soil** (g)	**Volume of mixture before stirring** (cm^3)	**Volume of soil after stirring** (cm^3)
D		100	
E		100	

(ii) Using information in table above, calculate;

(04 marks)

Bulk density

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Particle density

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Pore density

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(c) Hold the mouth of the cylinder with palm and shake the contents vigorously.

(i) Name **two** soil physical properties you can observe from the experiment.

(01 mark)

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(ii) Draw the contents after settling from your observations. (03 marks)

(iii) Suggest **two** factors that affect bulk density of the soils above. (02 marks)

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4. You are provided with specimens F_1, F_2, and F_3, which are used on the farm.

(a) (i) Give the group of specimens F_1, F_2, and F_3.

(01 mark)

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(ii) Give **one** use for each of the specimens.

(2½ marks)

F_1

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F_2

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F_3

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(b) Describe the procedure of using specimen F_1 on the farm.

(05 marks)

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(c) (i) Give **one** way of maintaining each specimen on the farm. (1½ mark)

F_1

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F_2

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F_3

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(ii) What is the relationship between $F_1$and F_3. (01 mark)

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5. Specimens *G* and *H* are plants growing with crops.

(a) (i) Name the group of specimens *G* and *H*. (01 mark)

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(ii) Draw each of the specimens to describe their morphology. (05 marks)

Drawing of *G*

Drawing of *H*

Turn over

(b) (i) How is each specimen propagated?

(02 marks)

Propagation of Specimen *G*

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Propagation of Specimen *H*

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(ii) Give **two** cultural control measures for each specimen.
(02 marks)

Control of *G*

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Control of *H*

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END