Name:.....[redacted].....Signatu[redacted].....

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PRINCIPLES AND PRACTICES OF AGRICULTURE
Jul/Aug, 2023
(Theory Paper)

PROMISE EXAMINATIONS COMMITTEE

Uganda Certificate of Education

PRINCIPLES AND PRACTICES OF AGRICULTURE

(THEORY)

Paper 1

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

The paper consists of two parts A and B
Question 1 of part A consist of four objective type questions and candidates are required to put a letter that corresponds to the best answer in the box provided.
From questions 2 – 5, write answers in the spaces provided.
Answer all questions in part A and four questions from part B including at least one question from each section.

For Examiner's Use Only		
Part/Question	*Marks*	*Examiner's Signature And Number*
A		
B: No.		
No.		
No.		
No.		
Total		

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PART A: (20 MARKS)

Answer all questions in this part. For question 1, write the letter corresponding to the best alternative in the box provided. For questions 2 to 5, write all answers in the spaces provided.

1. **(a)** Correct depth in planting crop seeds means planting the seed;
   A. And ensuring that it is well covered with soil.
   B. So that it does not exhaust its food reserve before germination
   C. At medium depths in heavy soils
   D. In such a manner that it germinates within seven days. ☐

   (b) Which of the following sets of tools is used for the same purpose?
   A. Hot iron, caustic stick, wire saw
   B. Hot iron, caustic stick, pincers ☐
   C. Hot iron, wire saw, pincers
   D. Caustic stick, wire saw, pincers

   (c) The price of a commodity in a market is determined by....
   A. Transport costs
   B. Production cost ☐
   C. Population number
   D. Supply and demand

   (d) What is the purpose pf the compression stroke in a diesel engine?
   To .....
   A. Ignite the compressed air
   B. Allow the expansion of the fuel – air mixture ☐
   C. Raise the air mixture to ignition temperature
   D. Make a suitable fuel air mixture for ignition.

(02marks)

2. In January 2023, Mr. Kisodde Kito bought a fertile piece of land near Ssezzibwa river swamp. He cleared, ploughed, harrowed and raked it thoroughly well. He made 20 nursery beds, each measuring 1m wide and 20m long. He bought NPK fertilizer and measured it in the ratio of 2:3:1 at the rate of 200g per square metre.

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(a) Total amount of NPK fertilizer (in kgs) which Mr. Kisodde Kito used in the nursery beds. (01 mark)

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(b) Total amount of N(in kgs) used in the nursery beds. (½ mark)

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(c) Total amount of P (in kgs) used in the nursery. (½ mark)

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(d) Total amount of K (in kgs) used in the nursery beds. (½ mark)

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(e) Which element was used in the greatest quantity? (½ mark)

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(f) Give a reason for your answer in 2 (e) above. (01 mark)

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(g) Give two qualities of a good fertilizer. (01 mark)

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3. Suggest four ways by which a farmer can increase his or her profit margin. (04 marks)

(i) .....

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(ii) .....

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(iii) .....

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(iv) .....

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4. Give **four** causes of poultry vices. (04 marks)

(i) .....

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(ii) .....

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(iii) .....

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(iv) .....

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5. Give **five** advantages of using water as a coolant in the engine. (05 marks)

(i) .....

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(ii) .....

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(iii) .....

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(iv) .....

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(v) .....

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PART B: (80 MARKS)

Answer four questions from this part including at least one question from each section. Write your answers on the answer sheets provided.

SECTION I
MECHANISATION AND FARM MANAGEMENT

6. **(a)** State the qualities of a good roofing material. (06 marks)

(b) Explain the precautions taken when storing maize grain produce. (14 marks)

7. **(a)** Outline an action that is needed to correct each of the following engine faults;

(i) Engine jerking. (05 marks)

(ii) Engine producing black smoke. (05 marks)

(b) What are the safety rules for tractor operation? (10 marks)

8. **(a)** The following information is about Bugembe mixed farm. Use it to make a profit and loss account as at 31st December 2017.

Milk sales	30,000
Maize sales	400,000
Pesticide purchase	200,000
Other receipts	100,000
Income tax	120,000
Closing stock	150,000
Rent	200,000
Cash at bank	500,000

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Bank overdraft	100,000
Poultry receipts	500,000
Opening valuation	230,000
Transport expense	150,000
Interest on loan	100,000

(09 marks)

(b) How do such records improve farm performance? (06 marks)

(c) State the advantages of mixed farming. (05 marks)

SECTION II
CROP PRODUCTION

9. **(a)** Outline the advantages and disadvantages of broad casting as a method of planting. (10 marks)

(b) Why is it advisable to plant crops in rows? (05 marks)

(c) Outline the benefits of using proper spacing in crop production. (05 marks)

10. **(a)** Give the characteristics of a fertile soil. (05 marks)

(b) How do soil living organisms contributes to soil fertility in an area? (05 marks)

(c) Explain the various ways how the fertility of the soil is lost. (10 marks)

11. **(a)** State the characteristics of a grass suitable for use as a pasture plant. (08 marks)

(b) Outline the advantages and disadvantages of zero grazing. (12 marks)

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SECTION III
ANIMAL PRODUCTION

12. **(a)** Explain the factors that may lead to disease outbreak on a poultry farm. (10 marks)

(b) Explain the ways through which the spread of diseases in poultry can be controlled. (10 marks)

13. **(a)** Why do heifers or cows sometimes fail to conceive after being served? (10 marks)

(b) Describe how you would manage a pregnant cow up to calving time. (10 marks)

14. **(a)** What is the importance of keeping goats on farms in Uganda. (10 marks)

(b) How can the goat industry in Uganda be improved? (05 marks)

(c) Outline the features of a healthy goat. (05 marks)

END

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