

NAME:.....INDEX NO.....

SCHOOL.....

527/1

PRINCIPLES AND PRACTICE

OF AGRICULTURE

JULY/AUGUST 2019

THEORY PAPER

TIME 2½ HOURS

**UGANDA CERTIFICATE OF EDUCATION
MOCK EXAMINATION 2019**

PRINCIPLES AND PRACTICES OF AGRICULTURE

PAPER ONE

2½ HOURS

INSTRUCTIONS TO CANDIDATES:

- Answer ALL questions in part A in the spaces provided and Four questions from part B with at least one question from each of the sections.

FOR EXAMINER'S USE ONLY

SECTION/ QUESTION	MARK	EXAMINER'S SIGN
A		
B Qn		
Qn		
Qn		
Qn		
TOTAL		

Part A (20 MARKS)

1. Choose the correct answers to each of the following questions. (2 marks)

a. Which of these engine components converts piston movement into a rotary motion?

- (a) Fly wheel
- (b) Cam shaft
- (c) Connecting rod
- (d) Crank shaft

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b. High water holding capacity of top soil is mostly associated with-----

- A: Soil depth
- B: Soil texture
- C: Organic matter
- D: Particle arrangement

☐

c. Which of the following minerals elements relates to piglet anaemia?

- A: Iron
- B: Magnesium
- C: Manganese
- D: Calcium

☐

d. In farm production cost of items like feeds, drugs, seed and fertilizers can best be described as-----costs

- A: variables
- B: input
- C: nominal
- D: actual

☐

2 (a) Mention four symptoms of fungal diseases in cereal crops. (2 marks)

- (i)-----
- (ii)-----
- (iii)-----
- (iv)-----

(b) Suggest two control measures for fungal crop diseases. (2 marks)

- (i)-----
- (ii)-----

3 Outline the practices that are carried out on a sow just before farrowing. (4 marks)

- (i)-----
- (ii)-----
- (iii)-----
- (iv)-----

4 What are the benefits of keeping good financial records for a farm business? (5 marks)

- (i)-----
- (ii)-----
- (iii)-----
- (iv)-----
- (v)-----

5. Outline five main maintenance practices that are carried out on a diesel fuel supply system of a tractor. (5 marks)

- (i)-----
- (ii)-----
- (iii)-----
- (iv)-----
- (v)-----

Part B

SECTION ONE: FARM MECHANISATION AND FARM MANAGEMENT

- 6 (a) what are the characteristics of a well constructed dip tank for tick control? (10 marks)
(b) How can farmers ensure efficiency of dipping in tick control? (10 marks)

- 7 (a) Distinguish between the working of a 4-stroke petrol farm engine and a 4-stroke diesel farm engine. (14 marks)
(b) How can a farmer ensure proper working of wet type air cleaner of a farm engine (6 marks)

- 8 (a) Outline the type of records that can be kept by dairy farmer. (8 marks)
 (b) Use the following information from Mukasa a dairy farmer, to prepare a profit and loss account for a year from 1st -Jan to 31st-12-2010. (12marks)

- Closing valuation	1,500,000
- Opening valuation	2,000,000
- Purchase of heifers	3,000,000
- Veterinary drugs	500,000
- Labour	600,000
- Sale of milk	2,500,000
- Debtors	450,000
- Creditors	200,000
- Sale of bullocks	1,000,000
- Cash in bank	800,000
- Bank loan	150,000
- Sale of heifers	700,000
- Purchase of feeds	1,500,000
- Sale of manure	850,000

SECTION 2 CROP PRODUCTIONS

- 9 (a) Describe the role of vegetation in soil and water conservation. (12 marks)
 (b) Explain how living organisms contribute to soil formation. (8 marks)
- 10 (a) Outline the effects of insect pests on crop in the field. (10 marks)
 (b) What are the precautions that should be taken when using pesticides to control crop pests? (10 marks)
- 11 (a) what are the advantages of growing vegetable crops? (8 marks)
 (b) Explain how field practices can be used to increase yield in vegetable crops. (12 marks)

SECTION III ANIMAL PRODUCTION

- 12 (a) Outline the damage ticks cause to farm animals. (5 marks)
 (b) Describe how three host ticks develop from eggs to adults. (10 marks)
 (c) Suggest effective control measures for ticks on the farm. (5 marks)
- 13 (a) Mention the benefits of farmers mixing rations for their animals on the farm. (5 marks)
 (b) A farmer wants to make 16% protein ratio for piglets using cotton seed cake 38% protein and maize bran 8% Protein .
 (i) Use a Pearson square method to determine the quantities of each ingredient in 100 kgs of such a feed. (10marks)
 (ii) Calculate the cost of that feed given that cotton seed cake is sold at 100 per kg and maize bran sold at shs 500per kg. (5 marks)
- 14 (a) Explain how high quality eggs can be produced in a deep litter poultry house. (12 marks)
 (b) Describe the conditions necessary for proper incubation and hatching of eggs. (8marks)

END