

NameSignature.....

Index No

P515/3

Principles and

Practices of Agriculture

MOCK EXAMINATIONS 2019
UGANDA ADVANCED CERTIFICATE OF EDUCATION
PRINCIPLES AND PRACTICES OF AGRICULTURE
PAPER 3
PRACTICAL PAPER
2 HOURS

Instructions to candidates

- This paper consists of five questions
- Answer all questions
- All questions are to be written in the spaces provided.

For Examiners' use only	
1	
2	
3	
4	
5	
Total	

1. You are provided with specimens F_1, F_2, F_3 and F_4 which are animal products
(a) Using a candle, observe the specimens F_1 and F_2 and describe your observations (2 marks)

F_1

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.....
.....

F_2

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.....
.....

- (b) Break open specimens F_1 and F_2 and pour them in different petridishes.
Describe your observation

F_1

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.....
.....

F_2

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.....
.....

- (c) Explain your observations in (a) and (b) (2 marks)

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.....
.....
.....
.....
.....

(d) (i) Observe the external features of specimens F₃ and F₄ , describe them and suggest the causes of the condition . (2 marks)

F₃
Description

.....
.....

Cause of condition

.....
.....

F₄
Description

.....
.....

Cause of condition

.....
.....

(e) Suggest how each of the condition can be avoided (2 mark)
avoided

F₃

.....

F₄

.....

2. You are provided with specimens A,B,C and D which are extracts from livestock feeds perform the following tests, record your observations and conclusions.

Test	Observation	Conclusion
(i) Put 1cm ³ specimen A in a test tube and add 1cm ³ of iodine solution		
(ii) Put four separate drops of specimen A on a tile add drops of saliva on each of the drops and then add a solution of iodine on each of the drops of a at an interval of 2 minutes		
(iii) Put 1cm ³ of B in a test tube add 1cm ³ of NaOH solution. Shake to mix and add 3 drops of copper		

<p>sulphate wait for 2 minutes and the shake.</p>		
<p>(iv) To 2cm³ of C add 2cm³ of benedicts solution and boil</p>		
<p>(v) To 2cm³ of D add 2cm³ of benedicts solution and boil. Repeat the experiment by adding 3 drops of dilute Hcl followed 3 drops of sodium hydroxide and then benedicts solution and boil</p>		

(b) Explain the observation in 2 (ii) above (1 mark)

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3. You are provided with specimens S₁ and S₂ which are soil samples obtained from different parts of the garden. Carry out experiments and answer questions that follow. Take a spatulaful of S₁ and put it in a test tube. Add 3cm³ of water and add barium sulphate, shake the test tube well. Allow the mixture to stand and settle for 10 minutes. Add 3 drops of universal indicator to the test tube and observe the colour change. Compare the colour of the mixture with the colours of the pH chart. Repeat the procedure with soil sample S₂ and record your results in the table below. (2 marks)

Soil sample	Colour observed	pH value

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(b) From your observation state the problems associated with using specimens S_1 and S_2 for crop production (4 marks)

S_1

(i)
.....

(ii)
.....

(iii)
.....

(iv)
.....

S_2

(i)
.....

(ii)
.....

(iii)
.....

(iv)
.....

(c) What management practices would you encourage the farmer to use in order to improve soil samples S_1 and S_2 ?

S_1

(i)
.....

(ii)
.....

S₂

(i)
.....

(ii)
.....

(d) What is the significancy of using barium sulphate in the experiment? (1 marks)

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.....
.....

4. Specimens G, H, I and J are plant parts and plants showing disease symptoms and pest damages. Observe the specimens and record in the table below the disease symptoms, causal agent and two control measures in each case

Specimen	Symptom	Causal agent	Method of control
G			

H			
I			
J			

(b) You are provided with specimens K and L which are crop pests. Observe them carefully and answer the questions that follow. On the basis of the month parts explain the damages each pest may cause (2 marks)

K

.....
.....
.....
.....

L

.....
.....
.....
.....

(c) Suggest the best method of control for each of the specimen K and R. Giving a reason for your answer

K

.....

Reason

.....

.....

R

.....

Reason

.....

.....

5. You are provided with specimens L,M,N and P which are equipment used in the management of farm animals.
(a) Describe two features that help each specimen to perform its function properly. (4 marks)

L

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.....

.....

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M

.....

.....

.....

.....

N

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.....

P

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.....
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(b) Describe how each of the specimens L and M are used (4 marks)

L

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.....
.....
.....

M

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.....
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.....
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(c) How can the specimens L and M be maintained in good working conditions? (2 marks)

(i)

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.....
.....

(ii)

.....

.....

END