

Students Name:index number

School

P515/3
PRINCIPLES &
PRACTICES OF
AGRICULTURE
Paper 3
July/august
2 hours



HES MOCK EXAMINATIONS 2025

UGANDA ADVANCED CERTIFICATE OF EDUCATION

PRINCIPLES & PRACTICES OF AGRICULTURE

PAPER 3

(PRACTICAL)

2 HOURS

INSTRUCTIONS

- Attempt **all** questions and answers must be written in the space provided

1. Specimens A1, A2, A3, A4, A5, A6 and A7 are used in construction of a farm structure.
Examine them and answer the questions that follow.

a) Suggest with a reason the farm structure constructed using the specimens above together. (1 mark)

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b) Describe how the specimens above can be used jointly in the construction of structure mentioned above. (7 marks)

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c) How are the specimens A2 and A7 adapted to their functions? (2 marks)

A2

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A7

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2. You are provided with specimens B1, B2, B3 and B4 which are used in poultry production.

a) Critically observe the specimens and describe the condition of each. (2 marks)

B1

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B2

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B3

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B4

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(b). From the above conditions observed, comment on the suitability of the specimens for use in a poultry unit. (4 marks)

B1

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B2

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B3

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B4

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c). What are the possible causes of the condition of specimen B1 in a poultry unit.

(2 marks)

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d) Suggest the practices a farmer can employ to improve the condition of specimen B1.

(2 marks)

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3. You are provided with specimens C1 C2, C3 and C4 which are affected crops.

a) Describe the condition of each specimen.

(02 marks)

C1

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C2

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C3

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C4

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b) Suggest the causal organisms of the condition of C1 and C2 on the crop plants.

(2 marks)

C1

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C2

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c). Describe the mode of transmission of the condition observed in (a) above. (02 marks)

C1

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C2

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C3

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C4

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d). Suggest non chemical ways in which a farmer can minimise the condition of each

specimen on the farm

(4 mark)

C1

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C2

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C3

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C4

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4. You are provided with specimen D, E and F which are soil samples. You are required to examine them and establish their properties.

- a) Label three measuring cylinder D, E and F. Plug a filter funnel with filter paper and place it on the labeled measuring cylinder.

Measure 30cm³ of soil sample D and pour in the funnel on measuring cylinder labeled D.

Measure 50cm³ of water and add it to the soil in funnel on cylinder labeled D and start a stop clock, note the time taken in seconds of the first drop to be released and record in the table provided

After 5 minutes remove the funnel from the cylinder, stop the clock and read out the volume of water collected in the measuring cylinder.

Record your results. Repeat this procedure with soil sample E and F and record your results in the table below. (3 marks)

Specimen	Time when first drop is released (seconds)	Volume of water (cm ³) collected after 5 minutes
X		
Y		
Z		

- b). Explain the difference in time taken for the first drop to be released and volume of water collected after 5 minutes in soil samples D, and F. (2marks)

D

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F

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- c). With reason(s) which soil sample would you recommend a farmer to use for crop production. (1mark)

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- c) Suggest ways in which a farmer can improve the less productive soil samples.

(4 marks)

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5. You are provided with specimen A and B which are animal product that were obtained and stored in different conditions.

- a) Describe the conditions of the specimens. (2 marks)

G

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H

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b) What would be the possible causes of the conditions on the specimen? (2 marks)

G

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H

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c) (i) Measure 4cm³ of specimen H and pour it in the boiling tube, boil it for about 1 minutes. (1½ marks)

State your observation

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Reasons for your observations

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(ii) Cool the same specimen for about 10minutes and then dip in both blue and red litmus paper and state your observation. (1½ marks)

State your observation

Blue litmus

Red litmus

Reasons for your observations

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- d) Suggest measure that could be taken in order to reduce the conditions on specimen G given in (a) above. (3 marks)

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END