

P515/2
PRINCIPLES
AND PRACTICES
OF AGRICULTURE
PAPER 2
July/August 2025
3 hours



WAKISSHA JOINT MOCK EXAMINATIONS

Uganda Advanced Certificate of Education

PRINCIPLES AND PRACTICES OF AGRICULTURE

Paper 2
3 hours

INSTRUCTIONS TO CANDIDATES:

- *This paper consists of sections A, B, C, D and E.*
- *Answer Question 1 in section A and four other questions selecting one question from each of the sections B, C, D and E.*
- *Any additional question(s) answered will not be marked.*

SECTION A

COMPULSORY QUESTION (20 MARKS)

1. The table below shows the effects of four (4) fertilizer combinations on the yield of two varieties of tomatoes planted at the same time on the same soil conditions in different plots. Study it and answer the questions that follow.

Fertilizer combination	YIELD (Kg ha ⁻¹)	
	VARIETY A	VARIETY B
UREA + N.P.K	2500	2200
N.P.K + D.A.P	3000	4000
S.S.P + UREA	4500	3500
S.S.P + UREA + N.P.K	38,00	3000
CONTROL	1800	2100

- (a) Calculate the average yield for each of the varieties above. (04 marks)
- (b) What observations can you see from the data collected concerning the yield of the varieties in the different fertilizer combinations? (04 marks)
- (c) Apart from yield, identify (3) other growth attributes of tomatoes that can be affected by different fertilizer combination. (03 marks)
- (d) Giving a reason, which fertilizer combination would you recommend to a farmer? (03 marks)
- (e) Identify other Agronomic activities that were carried out in the above experiment and specify how they could have influenced the results above. (06 marks)

SECTION B

CROP PRODUCTION (20 marks)

2. (a) Describe the process of making silage from elephant grass as a strategy for forage conservation. (10 marks)
- (b) Explain how the following grazing system affects forage utilization by livestock.
(i) Rotational grazing. (05 marks)
(ii) Zero grazing. (05 marks)
3. (a) Suggest the factors that may influence the choice of an irrigation method to be used on the farm. (12 marks)
- (b) State four disadvantages of surface irrigation. (04 marks)
- (c) Suggest four ways in which too much water in soil may hinder crop growth. (04 marks)

SECTION C

ANIMAL PRODUCTION (20 marks)

4. (a) Discuss the factors to be considered before culling cattle from the farm. (14 marks)
- (b) Explain the factors responsible for low beef production in the cattle corridor of Uganda. (06 marks)
5. (a) Describe the egg selection criteria for incubation. (06 marks)
- (b) What preparations would be necessary before receiving one day old chicks from Ugachick breeders? (14 marks)

SECTION D

AGRICULTURAL ENGINEERING AND FARM STRUCTURES (20 marks)

6. (a) Describe how sap displacement can be used to preserve wood on the farm for commercial use. (06 marks)
- (b) Discuss the advantages of using wood as a construction material. (10 marks)
- (c) Mention the precautions taken while air seasoning wood. (04 marks)
7. (a) Explain the factors that influence power output from a farm draught animal. (12 marks)
- (b) What recommendations would you put forward in order to increase the efficiency of draught power animals? (08 marks)

SECTION E

AGRICULTURAL ECONOMICS (20 marks)

8. (a) Using relevant examples differentiate between technical efficiency and economic efficiency. (04 marks)
- (b) As a farm manager elaborate how good farm record keeping can improve the efficiency on a farm. (08 marks)
- (c) Give reasons why most farms are not performing to the required efficiency level. (08 marks)
9. (a) Explain the causes of price instability for agriculture produce. (12 marks)
- (b) What recommendation would you give to farmers in order to mitigate the impact of price fluctuation in their agriculture businesses? (08 marks)

END