515/2
Agriculture
Paper 2
July/August
2023
*3 hours*

# KAMOTA MOCK EXAMINATIONS 2023

## UGANDA ADVANCED CERTIFICATE OF EDUCATION
### PRINCIPLES AND PRACTICES OF AGRICULTURE
### (THEORY)
**Paper 2**
***3 hours***

## INSTRUCTIONS

Answer question 1 in section A and four other questions
selecting at least one from each of the section B,C,D and E.

# SECTION A (20 MARKS)

## *Question 1 is compulsory*

1. In an investigation, leaves were collected from a maize plant of certain variety growing in a shaded site and another maize plant of the same variety growing in an open site. The surface area of each leaf was worked out. The results obtained are shown in the table below.

| Surface area of Leaves($cm^2$) | |
|---|---|
| Shaded site | Open site |
| 21 | 15 |
| 14 | 17 |
| 18 | 14 |
| 19 | 12 |
| 21 | 15 |
| 19 | 11 |
| 22 | 14 |
| 16 | 10 |
| Mean surface area = A | Mean surface area = B |

a). Calculate the mean surface area A and B                    (04 marks)

b)(i).Suggest a reason for the difference in the mean surface area between the leaves from the two sites                    (02 marks)

ii). Explain your answer                    (04 marks)

c). Some plants have rolled leaves, explain the importance of such leaves to a plant                    (02 plants)

d). Describe the field practices that are carried out to ensure high yields of maize.                    (08 marks)

# SECTION B (20 MARKS)
## CROP PRODUCTION

2. a).What is soil structure?                    (02 marks)

b)(i). Explain the factors that influence the development of different soil structures.                    (10 marks)

ii). How does fine textured soil influence plant growth?                    (04 marks)

iii). Suggest ways farmers can make sandy soil more suitable for plant growth. (04 marks)

3. a). Outline characteristics of seedlings growing under too much shade (04 marks)

b). Suggest the care taken when transplanting tomato seedlings (06 marks)

c). Describe how good nursery bed for tomatoes is made (10 marks)

## SECTION C (20 MARKS)
### ANIMAL PRODUCTION

4.a). What is milk let down? (01 mark)

b). Explain that factors that affect milk composition in dairy cattle (09 marks)

c). Suggest ways a farmer can ensure production of high quality milk on the farm. (09 marks)

5.a). What preparations can a farmer carry out on brooders before receiving one day old chicks. (10 marks)

b). State recommended preventive measures in poultry unit. (10 marks)

## SECTION D (20 MARKS)
### AGRICULTURAL ENGINEERING

6.a). What are the qualities of a good roofing material? (04 marks)

b). Explain factors considered when selecting roofing materials. (10 marks)

c). Suggest reasons why tiles are more preferred over other roofing materials (06 marks)

7.a). Suggest ways of ensuring efficiency of farm machines. (08 marks)

b). Explain factors that determine choice of farm machines to buy (12 marks)

## SECTION E (20 MARKS)
### AGRICULTURAL ECONOMICS

8.a). What is meant by optimum population (02 marks)

b). What are the causes of low food population in Uganda (12 marks)

c). Explain how agricultural research centres in Uganda have contributed to increased food production (06 marks)

9. a). What is meant by marketing function (02 marks)

b). Suggest challenges of marketing agricultural produce (10 marks)

c). Explain importance of the following marketing functions

(i). processing (04 marks)

(ii). Storage of produce (04 marks)

**END.**