

Students Name:

School Name..... Index Number

P515/2
PRINCIPLES AND PRACTICES OF
AGRICULTURE
THEORY
PAPER 2
JUNE/JULY 2025
3 HOURS



HES MOCK EXAMINATIONS 2025

UGANDA ADVANCED CERTIFICATE OF EDUCATION

PRINCIPLES & PRACTICES OF AGRICULTURE

(THEORY)

PAPER 2

3 HOURS

INSTRUCTIONS

- This paper consists of three sections: **A, B, C, D** and **E**.
- Answer **question 1** in section **A** and **four** other questions, selecting **one** from each of the sections **B, C, D** and **E**.
- Write your answers on the answer sheets provided.
- Any additional question(s) answered will **not** be marked.

1. The table below shows the results of a research study carried out at Kyambogo university farm to show the effects of age and stages of growth of a pasture species on its nutritive value. Study it carefully and answer the questions that follow.

Growth stage	Dry matter content (%)	Protein content (%)
Buds	5	25
Beginning of flowering	10	20
50% flowering	15	15
Full flowering	20	10
Seed formation	23	5

- a) Represent the information on a graph. (6 marks)
- b) Describe the changes in nutritive value as the pasture species grows. (4 marks)
- c) Explain the changes in the nutritive values of the pasture with stages of growth. (4 marks)
- d) What are the disadvantages of feeding livestock on the pasture species after seed formation? (4 marks)
- e) State with a reason the most suitable stage of growth of pasture species when it should be fed to cattle. (2 marks)

SECTION B (20 MARKS)

CROP PRODUCTION

Answer **one** question from this section

- 2. (a) State the qualities of a good inorganic fertilizer for farming. (4 marks)
- (b) Explain the factors that affect crop response to the fertilizers applied. (12 marks)
- (c) Outline the importance of potassium in plant nutrition. (4 marks)
- 3. (a) Give the benefits of staking in crop production. (5 marks)
- (b) What considerations should a farmer make when grafting? (10 marks)
- (c) State the disadvantages of late planting of crops. (5 marks)

SECTION C (20 MARKS)

ANIMAL PRODUCTION

Answer **one** question from this section

- 4. (a) Give for advantages of a top bar hive and disadvantages of a traditional hive. (08 marks)
- (b) Explain the factors considered when choosing a site for an apiary. (08 marks)

- (c) Outline the factors that affect the quality of honey. (04 marks)
5. (a) Differentiate between infectious and contagious diseases. (02 marks)
- (b) Explain six factors that predispose livestock to diseases. (12 marks)
- (c) What is the importance of ensuring food health in livestock? (6 marks)

SECTION D (20 MARKS)

AGRICULTURAL ENGINEERING

*Answer **one** question from this section*

6. (a) Give the various ways of maintaining farm tools and equipment in a good working condition. (06 marks)
- (b) Explain the factors considered while selecting farm tools and equipment for use in the farm? (14 marks)
7. (a) Describe the procedure of constructing a fish pond. (12 marks)
- (b) State the various management practices carried out on a fish pond to maintain it a good condition. (08 marks)

SECTION E (20 MARKS)

AGRICULTURAL ECONOMICS

*Answer **one** question from this section*

8. (a) Explain the causes of price instability of agricultural commodities. (12 marks)
- (b) Suggest measures to revert price instability in Uganda. (08 marks)
9. (a) Define production function. (02 marks)
- (b) With aid of illustrations, describe the types of production functions experienced in farming. (10 marks)
- (c) Suggest measures of increasing the profitability of a farming business. (08 marks)

END