

STUDENT'S NAME:

SCHOOL NAME: RANDOM NUMBER:

P515/2
PRINCIPLES AND
PRACTICES OF
AGRICULTURE
PAPER 2
JULY/AUG 2024
3 Hours



ASK INTEGRATED TEACHERS MOCK
EXAMINATIONS BUREAU

AITEL JOINT MOCK EXAMINATIONS.

Uganda Advanced Certificate of Education

PRINCIPLES AND PRACTICES OF AGRICULTURE.

PAPER 2 (THEORY)

3 Hours

INSTRUCTIONS TO CANDIDATES:

- *This* Section A IS compulsory
- Answer 5 examination QUESTION in all
- All answers must be written in the answers booklet provided

| FOR EXAMINERS US ONLY | | |
|-----------------------|-------|--------------------|
| Section | Marks | Examiner's comment |
| A | | |
| B | | |
| | | |
| | | |
| | | |
| Total | | |

SECTION A COMPLUSORY

1. An experiment was carried out to investigate on maize seeds to investigate the changes in dry mass of endosperm and that of different parts of the seedlings during germination. The results are shown in table 1. Study the table below and answer the questions that follow;

| Days of germination | Dry mass | | |
|---------------------|---------------|-------------|-------------|
| | Endosperm (g) | Radical (g) | Plumule (g) |
| 2 | 150 | 1 | 3 |
| 4 | 136 | 9 | 7 |
| 6 | 120 | 16 | 25 |
| 8 | 80 | 27 | 39 |
| 12 | 54 | 44 | 51 |

- a) Describe the relationship between the dry mass of endosperm and that of radical and plumule. (02 marks)
- (ii) Account for the relationship between the dry mass of endosperm and that of the radical and plumule. (04 marks)
- b) State other physiological processes investigated in the experiment apart from germination. (04 marks)
- c) Describe the role played by each of the following in seed germination.
- I. Water
 - II. Temperature
 - III. Energy
 - IV. Light
- d) Suggest four ways of ensuring uniform germination of crop seeds. (04 marks)

SECTION B:

AGRICULTURAL ECONOMICS

2. (a) Explain the term “Gender”. (02 marks)
- (b) Suggest reasons why women’s participation in commercial farming is limited in Uganda. (10 marks)
- (c) How can the government of Uganda increase participation of women in commercial farming? (08 marks)
3. (a) With illustrations, describe increase in;
- (i) Quantity supplied, (03 marks)
- (ii) Supply curve. (03 marks)
- (b) Explain how price is determined in a free and competitive market. (06 marks)
- (c) How can farmers improve agricultural production to ensure food security, stable domestic, regional and international markets (08 marks)

SECTION C

CROP AND SOIL SCIENCE.

4. (a) Write short notes on the following;
- I. Integrated pest management (IPM). (02 marks)
- II. Biological pest control. (02 marks)
- III. Cultural pest control. (02 marks)
- IV. Chemical control. (02 marks)

- (b) Discuss the nursery bed maintenance practices and how they contribute to pest management. (12 marks)
- 5 (a) Explain six factors affecting the rate of transportation 1. (12 marks)
- (b) Give four adaptations of plant to reduce the rate of transportation. (04 marks)
- (c) Outline four crop management practices that reduce the rate of transportation. (04 marks)

SECTION D

ANIMAL PRODUCTION:

6. (a) Describe **six** methods of selection. In livestock production (12 marks)
- (b) Define dystocia in animal and outline the causes of dystocia (08 marks)
7. (a) What is embryo transfer and what benefit is it on the farm (08 marks)
- (b) Describe the different mechanism used in checking for pregnancy in farm animals (12 marks)

SECTION E

AGRICULTURAL MECHANIZATION.

- 8 (a) Describe the steps in training of oxen on a farm. (08 marks)
- b (I) Explain the factors affecting the performance of the planters. (08 marks)
- (ii) Give four ways uses of a crop planter. (04 marks)
- 9 (a) Outline the pre-requisites before engaging farmers. In mechanization (10 marks)
- (b) Describes different five levels of farm mechanization (10 marks)

END