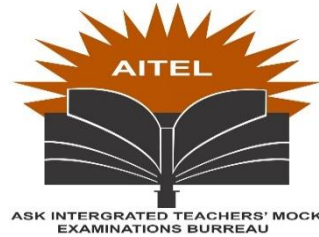


P515/2
PRINCIPLES AND PRACTICES
OF AGRICULTURE
PAPER 2
2023
3HRS



AITEL JOINT MOCK EXAMINATION

Uganda Advanced Certificate of Education

PRINCIPLES AND PRACTICES
OF AGRICULTURE

PAPER2

3HOURS

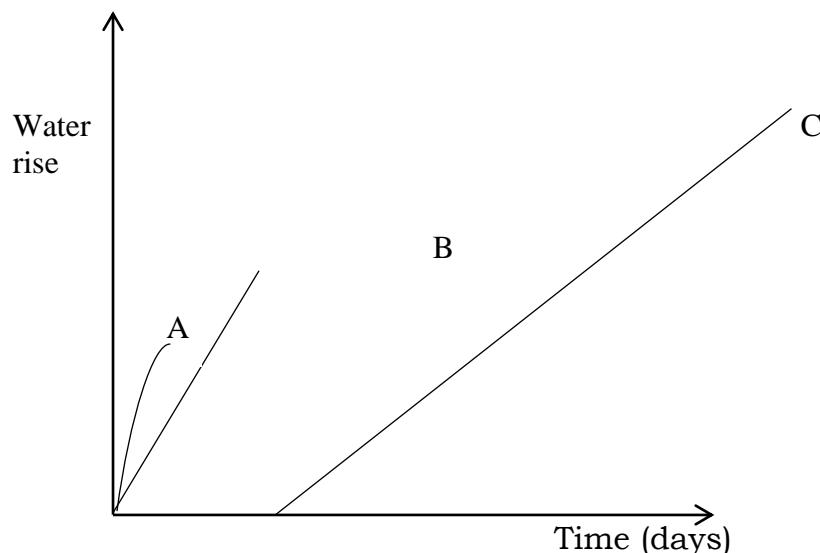
INSTRUCTIONS TO CANDIDATES:

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

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SECTION A

1. An experiment was carried out to test the relative capillarity in various soil samples represented by curves A, B, C. Study the graph carefully and answer the questions that follow.



- (a). Describe the trend of water rise in the three soil samples basing on the curves **3mks**
(b). Explain the causes of differences in water rise in the 3 soil samples. **6mks**
(c). Of what importance is the information in (b) above to the farmer? **2mks**
(d). Explain the factors that influence soil moisture content **9mks**

SECTION B. Crop production

2. (a). What is germination efficiency? **2mks**
(b). Explain the factors that affect germination efficiency. **7^{1/2}mks**
(c). Describe one chemical method of testing for seed viability **11^{1/2}mks**
3. (a). Outline the importance of soil living organisms **8mks**
(b). Explain the factors that influence abundance of soil living organisms **12mks**

SECTION C Animal production

4. (a). Describe the procedure for insemination using recto vaginal technique. **13mks**
(b). Describe the advantages of using artificial insemination. **8mks**
5. (a). State the considerations when siting a fish pond **6mks**
(b). Describe the procedure for fish pond construction **8mks**
(c). Outline the importance of fish farming **6mks**

SECTION D

Agricultural engineering

6. (a). Describe the procedure for making good concrete without using machines. **10mks**
(b). Explain the factors that influence the choice of building materials. **10mks**
7. (a). Outline the types of power used on the farm. **03mks**
(b). Explain the factors that influence power output in work animals **12mks**
(c). State the characteristics of an animal suitable for work. **05mks**

SECTION E AGRICULTURE ECONOMICS.

8. (a). Differentiate between labour and labour supply. **04mks**
(b). Explain the factors that influence labour supply **09mks**
(c). Outline the ways through which labour efficiency can be improved. **07mks**
9. (a). Distinguish between demand and demand schedule. **02mks**
(b). Consider the demand and supply schedule for milk in a given season

| Quantity demanded (L) | Price per litre (shs) | Quantity supplied (L) |
|-----------------------|-----------------------|-----------------------|
| 800 | 1000 | 4000 |
| 1200 | 900 | 3500 |
| 1600 | 800 | 3000 |
| 2000 | 700 | 2000 |
| 2500 | 600 | 1500 |
| 3000 | 500 | 800 |
| 4000 | 400 | 400 |
| 6000 | 300 | 200 |

Plot the information on a graph paper. **06mks**

- (c). What is the market condition when price is fixed
(i). Above equilibrium price
(ii) Below equilibrium price **06mks**
- (d). Explain the factors that influence prices of agricultural production. **06mks**

END