INSTRUCTION TO CANDIDATES

- This paper consists of THREE sections: A, B and C.
- Answer ALL questions in section A and B.
- ANY Two questions from section C.

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TOTAL SCORE: 90
**SECTION A (30MKS)**

1. Give **two** characteristics of plantation farming. (1mk)

2. Name **two** chemical processes of weathering. (1mk)

3. State **two** advantages of organic farming. (1mk)

4. Outline **three** effects of soil organisms which benefit plant growth. (1½ mks)

5. Give **two** ways in which organic mulch help to conserve water in the soil. (1mk)

6. Give **two** types of labour records. (1mk)

7. Outline **four** ways in which land consolidation helps to improve farm management. (2mk)

8. List **six** factors that should be considered when grading a crop produce. (3mks)

9. State **four** importance of raising tomato seedlings in a nursery bed. (2mks)
10. Give four ways of controlling weeds in a field of maize. (2mks)

11. State three reasons for top dressing pasture. (1½mks)

12. Give four reasons for training crops as a field practice. (2mks)

13. State three activities the farmer carries out on a store before storing grains. (1½mks)

14. Give four desirable characteristics of certified seeds. (2mks)

15. (a) Outline two characteristics of nitrogenous fertilizers. (1mk)

(b) Give the forms in which the following elements are available to plants: (1mk)
   (i) Phosphorous
   (ii) Potassium

16. List three general symptoms of viral diseases in crops. (1½mks)

17. Give four factors that influence the choice of tools and equipment used in Primary cultivation. (2mks)
18. State four factors that contribute to competitive ability of weeds. (2mks)

SECTION B. (20MKS)

19. (a) Diagram below shows an adult crop pest which in its larval stage causes the middle shoots of sorghum to wither as shown in the diagram.

(i) Identify the pest. (1/2 mks)

(ii) Give two ways of controlling the pest. (2mks)

(b) Diagrams E, F and G below shows the panicles of three sorghum varieties growing side by side.
(i) Which one of the three varieties of sorghum is least likely to be damaged by the birds.  

(ii) Give a reason for your answer in (i) above.  

(iii) State two methods that are used in controlling birds in a field of sorghum. 

20. The diagram below shows a method of bringing tea into bearing. Use it to answer the questions that follow.

(i) Identify the specific method shown in the diagram. 

(ii) Describe the procedure of carrying out the above in a tea bush.
21. Use the diagrams below to answer the questions that follow

(a) Identify each of the soil structures labeled K and L. (1½mks)

K

L

(b) Give one place where the soil structure labeled L can be found. (1mk)

(c) State three ways in which a farmer can improve the structure of waterlogged clay soil. (3mks)

22. The diagram below illustrates a vegetative propagation method. Study it and answer the questions that follow.
(a) Name the method used in preparing the above planting material. (1/2 mk)

(b) Name the crop propagated using the above method (1 mk)

(c) Name the parts labeled X and Y (2 mks)

X

Y

(d) State one environmental condition necessary for the success of the method named in (a) above, (1 mk)

SECTION C. (40MKS)

23. (a) Describe the production of Kales under the following sub headings:-

(i) Seedbed preparation (3 mks)

(ii) Transplanting (5 mks)

(iii) Field practices (4 mks)
(b) Explain eight cultural control measures of diseases in crop production. (8mks)

24 (a) Below is a graphical representation of the law of diminishing returns. Explain what happens in each of the zones marked I, II and III in relation to output. (3mks)

Zone marked I

Zone marked II

Zone marked III

8
(b) Which of the three is a rational zone of production? (1mk)

(c) State any six precautions a potato farmer would take to minimize risks in the production of potatoes. (6mks)

(d) Explain ten factors to consider when selecting a farm enterprise (10mks)

25. (a) Give six precautions observed in pruning mature tea. (6mks)

(b) Describe the procedure followed when collecting a soil sample from the field for testing in the laboratory. (6mks)
(c) Give four desirable characteristics of materials used in the preparation of compost manure. (4mks)

(e) Outline four advantages of intercropping crops. (4mks)