INSTRUCTIONS TO CANDIDATES:

- Write your name and index number in the spaces provided.
- This paper consists of three sections: A, B, and C.
- Answer all the questions in section A and B.
- Answer any two questions in section C.
- Answers should be written in the spaces provided in this booklet.

For Examiner’s Use Only:

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SECTION A: (30MARKS)
Answer all questions in this section in the spaces provided.

1. State two conditions under which shifting cultivation is favourable (1mk)

2. State three activities that are carried out during soil sampling in the field. (1½ mks)

3. Give two disadvantages of landlordism tenancy tenure system as practiced in Kenya. (1mk)

4. Name two methods of water collection in the farm. (1mk)

5. Mention four advantages of using polythene sleeves in the establishment of seedlings. (2mks)

6. What are four effects of low level of education and technology on agriculture. (2mks)

7. List two maintenance practices of sub-surface irrigation. (1mk)

8. Name two ingredients of the culture medium at Stage I of the tissue culturing (1mk)

9. State four methods used for collecting agroforestry seeds for planting. (2mks)

10. Outline two benefits of hedgerow intercropping as an agroforestry practice. (1mk)
11. Give two disadvantages of cumbered bed in drainage. (1mk)

12. State two reasons why subsoiling is important as an operation of land preparation. (1mk)

13. List two common sorghum diseases. (1mk)

14. Name two types of labour records commonly used in agricultural economics. (1mk)

15. Give two precautions taken to prevent pest attack in stored produce. (1mk)

16. State two roles of household-firm relationship in the economic growth of Kenya. (1mk)

17. Outline two factors which determine the efficiency of pesticides. (1mk)

18. Differentiate between integrated pest management and economic injury level. (1mk)

19. State the law of equimarginal returns in a production process. (1mk)

20. Outline two advantages of farm budgeting. (1mk)

21. Give three benefits of micro-catchments in water conservation. (1½mks)

22. State two cultural methods of soil conversation. (1mk)
23. List two management practices which are used to maintain pasture productivity. (1mk)

24. Given the maize is planted at a spacing of 75 X 25cm. Calculate the plant population in a plot of land measuring 4m x 4m show your workings. (2mks)

25. Name two types of land slides (1mk)

SECTION B: (20 MARKS)
Answers all questions in this section in the spaces provided.

26. The illustration below shows one of the grazing system commonly used by farmers,

a) Identify the grazing system. (½ mk)

b) With the help of arrows indicate the movement of livestock from one paddock to the next (1mk)

c) What is the purpose of the part labeled Y on the illustration. (1mk)
d. State **two** advantages of this system of grazing. (1mk)

27 The diagram below represents parts of a water harvesting structure. Study it carefully and answer the following questions.

![Diagram of a water harvesting structure]

a) Name the parts labeled A and H on the diagram. (1mk)

A……………………………………………………………

H……………………………………………………………

b) Identify the method of water harvesting illustrated. (½ mks)

………………………………………………………………………………………………………

c) State the use of part labeled **B** (½mks)

…………………………………………………………………………………………………………

d) State **two** maintenance practices needed for part labeled **E** (1mk)

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28. Below is a graph showing the relationship between demand and supply in price determination. Study the graph carefully, then answer the questions below.

![Graph showing relationship between demand and supply]

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e) Name the curves labeled H and J  
   H: .................................................................  
   J: .................................................................  

b) State the name given to the point where the two curves H and J intersect.  
   ........................................................................  

(c) Give two reasons why there is excess supply above P₂.  
   ........................................................................  
   ........................................................................  

d) Name this method of price determination.  
   ........................................................................  

29. The illustrations below indicate types of soil erosion that take place on cultivated farm land. Study them and then answer the following questions.

   a) Identify the type of erosion represented by each of the illustrations C and D  
      C: .................................................................  
      D: .................................................................  

   b) Name two factors that may accelerate the rate of the type of erosion represented by A  
      ........................................................................  
      ........................................................................  

   c) Give one practice that may reduce the impact of the type of erosion represented by B  
      ........................................................................  
      ........................................................................  

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d) A part from loss of soil what other types of destruction are caused by the type of erosion represented by A

………………………………………………………………………………………………………………………

30. Study the illustration given below representing pests of cultivated crops and answer the following questions.

![Illustration of pests]

a) Identify the pests represented in A, B, C

A………………………………………………………………………………………………………………

B………………………………………………………………………………………………………………

C………………………………………………………………………………………………………………

(1½ mk)

b) (i) State the damage done by the pests represented in the illustrations. (½ mk)

…………………………………………………………………………………………………………………………

(ii) Give the reason for your answer in b(i) above (½ mk)

…………………………………………………………………………………………………………………………

c) State one method used to control pest B, when the crop is growing. (½ mk)

…………………………………………………………………………………………………………………………

d) Which is the most devastating pests of the three indicated above. (½ mk)

…………………………………………………………………………………………………………………………

31. The illustration below shows a four-heap system of making compost manure. Study it and answer the questions that follows.

![Illustration of compost manure]

(i) By use of arrows indicate how the decomposing materials should be transferred from one heap to another till the manure is applied in the field. (1mk)

…………………………………………………………………………………………………………………………

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(ii) How long does the materials take to be ready for application in the field as manure. (½ mk)

(iii) Give one reason for turning the material in the heaps regularly (½ mk)

(iv) Give one reason why it is necessary to sprinkle water on the heap. (½ mk)

(v) Outline two characteristics of plants used for green manuring (1mk)

SECTION C (40MARKS)
Answer any two questions from this section in the spaces provided at the end of the section.

32. (i) Describe the production of cabbage seedlings under the following subheadings.
   (a) Nursery establishment. (6mks)
   (b) Pricking out of seedling. (4mks)
   (c) Pests control (2mks)

   (ii) Outline eight practices which help in disease control in crops. (8mks)

33. a) What is land reform. (1mk)
    b) Outline the objectives of land reform. (3mks)
    c) Explain how the following land reforms are carried out
       (i) Land consolidation. (5mks)
       (ii) Land adjudication and registration. (5mks)
    d) Explain six agricultural support services available to the farmer. (6mks)

34. a) Describe pasture establishment using seeds starting from land preparation to the time it is ready for utilization. (10mks)
    b) Discuss the qualities of a good silage. (5mks)
    c) Describe the effects of liberalization of agricultural markets to farming in Kenya. (5mks)