INSTRUCTIONS TO CANDIDATES:

- Write your name and index number in the spaces provided.
- This paper consists of three section 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:

<table>
<thead>
<tr>
<th>SECTION</th>
<th>QUESTIONS</th>
<th>MAXIMUM SCORE</th>
<th>CANDIDATES SCORE</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>1-17</td>
<td>30</td>
<td></td>
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<tr>
<td>B</td>
<td>18-22</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>C</td>
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<td>20</td>
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<tr>
<td>TOTAL</td>
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This paper consists of 8 printed pages. Candidates should check to ascertain that all papers are printed as indicated and that no questions are missing.
SECTION A: (30MARKS)

Answer all questions in this section in the spaces provided.

1. Give four advantages of mixed farming. (2mks)

2. State two ways in which human health affects agricultural production. (1mk)

3. Name two agricultural organizations for the youth. (1mk)

4. State four importance of draining agricultural land. (2mks)

5. State four objectives of land reforms in Kenya. (2mks)

6. State four sources of agricultural credit to farmers. (2mks)

7. Give four effects of soil erosion. (2mks)

8. State three deficiency symptoms associated with potassium in crops (1½mks)
9. Give **four** advantages of land title deed to a farmer. (2mks)

10. State **three** cultural Practices that can be used to control maize streak disease. (1½mks)

11. State **two** precautions to be taken when harvesting cotton. (1mk)

12. Give **two** disadvantages of minimum tillage. (1mk)

13. State **five** benefits of Agroforestry trees. (2½mks)

14. Give **four** types of records that can be kept by a crop farmer. (2mks)

15. Give **four** factors that influence the quality of hay. (2mks)

16. Give **four** reasons why seeds a may fail to germinate after planting. (2mks)
17. Give **five** functions of a farm Manager. (2½mks)

- ...
- ...
- ...
- ...
- ...

**SECTION B: (20 MARKS)**

*Answers all questions in this section in the spaces provided.*

18. The diagram below shows a method of crop propagation.

![Crop Propagation Diagram](image)

(i) Identify the propagation method illustrated above. (1mk)

(ii) State **three** ways of initiating faster root development in propagation method illustrated. (3mks)

19. The diagrams below show weeds.

![Weeds Diagram](image)

(a) Identify the weeds **C** and **D**. (1mk)

   C……………………………………………………………
   D……………………………………………………………

(b) State why it is difficult to control weed **C**. (1mk)

   …………………………………………………………………………

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(c) State two economic importance of weed D  
……………………………………………………………………………………………………………
……………………………………………………………………………………………………………

20. The diagrams below A and B illustrates some field pests. Study them carefully and answer the questions that follow.

(a) Identify pests A and B.  
A………………………………………………….
B………………………………………………….

(b) State two damages caused by pest B to a crop of maize.  
……………………………………………………………………………………………………………
……………………………………………………………………………………………………………

(c) Give two cultural practices carried out to control the pest in A.  
……………………………………………………………………………………………………………
……………………………………………………………………………………………………………

21. Below is a diagram of a domestic tank. Study it and answer the questions that follow.

a) Name the parts labeled 1,2,3.  
1……………………………………………………
2………………………………………………
3………………………………………………

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b) Outline the properties of clean water. (7mks)
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………………………………………………………………………………………………………………
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SECTION C: (40 MARKS)

Answer any two questions in this section in the spaces provided after questions 24.

22. Describe the establishment and management of grass pasture to the time it is ready for grazing under the following subheadings.
   a) Land preparation (6mks)
   b) Planting (7mks)
   c) Field management practices. (7mks)

23. (a) What is a production function? (1mk)
   (b) A farmer has a piece of land where he has been growing millet. His farm records of millet production for 9 years is as shown below and only one input factor is considered i.e fertilizer application.

<table>
<thead>
<tr>
<th>Year</th>
<th>Fertilizer applied in (bags)</th>
<th>Total output of millet in (bags)</th>
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<tbody>
<tr>
<td>1992</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>1993</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>1994</td>
<td>4</td>
<td>28</td>
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<td>1995</td>
<td>6</td>
<td>42</td>
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<td>66</td>
</tr>
<tr>
<td>1999</td>
<td>14</td>
<td>66</td>
</tr>
<tr>
<td>2000</td>
<td>16</td>
<td>64</td>
</tr>
</tbody>
</table>

(i) Using the above data and an appropriate scale draw a graph to show the relationship between inputs and total output. (5mks)
(ii) From the graph you have drawn how many bags of millet the farmer will obtain if he applied 9 bags of fertilizer. (½mk)
(iii) Calculate the farmers MP (marginal product) for the year 1994. (1mk)
(iv) Calculate the average product for the year 1996. (1mk)
(v) What rate of fertilizer application would the farmer choose if he wanted to grow millet in 2001 Give a reason. (1mk)

(c) On 1st June 2007 Bidii farm purchased on credit the following items from valley agro-vet
   15 bags of sow and weaner meal 100kg each shs 1350 per bag.
   20 bags of finisher meal 70kg each shs 800 per bag
   14 bag D.S.P fertilizer 50kg each shs 1800 per bag
   20 bags of seed maize 10kg each shs 1050 per bag
   2 milking churns 50 litres each shs 3,500 per can
   4 pruning knives (medium sized) shs 400 per knife
(i) Prepare the purchase order that Bidii farm made to valley agro-Vet. (7 mks)
(ii) Calculate the value of each item purchased and the total value of the order. (3½ mks)

24. The diagram illustrates some method of collecting spoil samples from a field. Carefully study the illustration and answer the questions that follow.

![Diagram](https://via.placeholder.com/150)

a) Identify the method illustrated. (1 mk)
b) State four precautions that a farmer should take when collecting a representative soil sample. (4 mks)
c) Distinguish between soil sampling and soil testing. (2 mks)
d) Outline the procedure to be followed in preparing soil sample collected for laboratory testing. (4 mks)
e) Give two pieces of information that should accompany the soil sample. (2 mks)
f) Draw a well labeled diagram to illustrate soil profile. (7 mks)