LENOCET EVALUATION TEST
KENYA CERTIFICATE OF SECONDARY EDUCATION

443/1
AGRICULTURE
PAPER 1
JULY/AUGUST 2013
TIME: 2 HRS.

INSTRUCTIONS TO CANDIDATES:
• Write your name and index No. in the spaces provided above.
• Sign and write the date of examination as required.
• The paper consists of three sections; A, B and C
• Answer ALL questions in Section A and B and any two questions from Section C
• Answers should be written in the spaces provided.

For Examiner’s use only

<table>
<thead>
<tr>
<th>Section</th>
<th>Question</th>
<th>Maximum Score</th>
<th>Candidates Score</th>
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<td>A</td>
<td>1 - 20</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>21 - 25</td>
<td>20</td>
<td></td>
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<tr>
<td>C</td>
<td>26</td>
<td>40</td>
<td></td>
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<td></td>
<td>27</td>
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<td></td>
<td>28</td>
<td></td>
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<tr>
<td>Total score</td>
<td></td>
<td>90</td>
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</tbody>
</table>
SECTION A (30 Marks)

1. Give two reasons why agriculture is important for development of industries. (1 mk)

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________________________________________________________________________

2. Name two agriculture organisations for the youth. (1 mk)

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________________________________________________________________________

3. List four factors that affect the effectiveness of herbicides. (2 mks)

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4. State three objectives of land distribution. (1½ mk)

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________________________________________________________________________

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

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6. State two details found on a title deed. (1 mk)

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7. State two ways of improving labour productivity in the farm. (1 mk)

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________________________________________________________________________

8. Give four reasons why seeds may fail to germinate after planting. (2 mks)

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________________________________________________________________________
________________________________________________________________________
9. State four roles played by drainage as a land reclamation method. (2 mks)

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10. State any four farming practices which help to improve soil structure. (2 mks)

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

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_________________________________________________________________

12. Mention three field management practices carried out during carrot production. (1 1/2 mks)

_________________________________________________________________
_________________________________________________________________
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13. Outline four roles of trees in soil and water conservation. (2 mks)

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14. Give the meaning of the following terms as used in crop production.
   (a) Closed season (1 mk)

_________________________________________________________________

   (b) Earthing up (1 mk)

_________________________________________________________________

15. Give two ways of forage utilization. (1 mk)

_________________________________________________________________
16. State two characteristics of a good root stock for grafting. (1 mk)

17. Give three disadvantages of multiple stem pruning in coffee. (1½ mk)

18. State two reasons why staking as a field management practice should be carried out in some varieties of tomatoes. (1 mk)

19. State four advantages of a good crop rotational programme. (2 mks)

20. State three control measures of blossom end rot disease. (1½ mks)

SECTION B: (20 Marks)

21. Study the vegetative materials illustrated below and answer the questions that follows.

   ![Vegetative materials](image)

   (i) Identify the vegetative material illustrated below. (1 mk)

   (ii) Describe the function of each vegetative material. (2 mks)
(ii) Name the process involved in the preparation of the above mentioned planting material prior to planting. (1 mk)

(iii) Outline the procedure of preparing the above planting materials. (3 mks)

22. 10g of Urea fertilizer was put into a test-tube and 10ml of water was added and shaken gently for one minute.
(a) What observation was made? (1 mk)

(b) Red and blue litmus papers were dipped into the test tube. Record the expected observations after 2 minutes. (1 mk)

(c) Explain how the property of the fertilizer observed in (a) above influences its method of application. (1 mk)

23. Observe the structure labelled L and then answer the questions,

(a) Name the structure labelled L. (1 mk)
(b) State the importance of the drainage channel around the structure L.  
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________________________________________________________________________

(c) Outline **two** reasons for conserving forage.  
________________________________________________________________________  
________________________________________________________________________  
________________________________________________________________________  
________________________________________________________________________

24. Illustrated below is a part of pineapple plant *(Anana’s comosus)*  

![Pineapple Diagram](image)

(a) Identify propagation material labelled A, B and C.  
________________________________________________________________________  
________________________________________________________________________  
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(b) Give a reason why the propagation material labelled C is most preferred.  
________________________________________________________________________  
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25. (a) On the same axis, draw and label demand and supply curves of a commodity. On the diagram you have drawn, mark the equilibrium market price.  
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________________________________________________________________________  
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(b) What is equilibrium market price of a commodity. (1 mk)

SECTION C: (40 Marks)

26. (a) What is a profit and loss account as used in farm accounting. (1 mk)
(b) The information below was got from Lulu farm. Use it to prepare a profit and loss account for Lulu farm for the year ended 31st December 2012. (12 mks)

<table>
<thead>
<tr>
<th>Item</th>
<th>Kshs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maize seeds</td>
<td>10,000</td>
</tr>
<tr>
<td>D.A.P. fertilizers</td>
<td>25,000</td>
</tr>
<tr>
<td>Tractor disc plough</td>
<td>50,000</td>
</tr>
<tr>
<td>Diesel fuel</td>
<td>12,000</td>
</tr>
<tr>
<td>Milk cans</td>
<td>2,500</td>
</tr>
<tr>
<td>Knapsack sprayer</td>
<td>6,500</td>
</tr>
<tr>
<td>Veterinary drugs</td>
<td>5,000</td>
</tr>
<tr>
<td>Herbicides</td>
<td>18,000</td>
</tr>
</tbody>
</table>

*During the year, the following items were sold.*

- Maize to N.C.P.B. 210,000
- Milk to K.C.C. 500,000
- Weaner’s 35,000

*Other vital information from the records.*

- Opening valuation 300,000
- Closing valuation 600,000
- Debts receivable for tractor hire services 28,000
- Interest payable to bank 3,000

(c) Explain reasons for pruning in crops. (7 mks)

27. (a) Describe production of beans under the following subheadings.

(i) Ecological requirements. (3 mks)
(ii) Seedbed preparation (3 mks)
(iii) Planting (4 mks)
28. (i)  a) Define soil erosion. (1 mk)

b) State four factors that influence soil erosion in an already prepared piece of land on a slope. (4 mks)

c) Outline four cultural soil conservation measures. (4 mks)

d) Briefly describe the four types of water erosion. (8 mks)

(ii) Give three advantages of earthing up in crop production. (3 mks)