

NAME: ..... INDEX NO: .....

SCHOOL: ..... SIGNATURE: .....

DATE : .....

443/1  
AGRICULTURE  
PAPER 1  
JULY / AUGUST 2013  
TIME: 2 HOURS

## NANDI SOUTH, NANDI EAST AND TINDERET DISTRICTS JOINT EVALUATION TEST 2013

*Kenya Certificate of Secondary Education (K.C.S.E.)*  
AGRICULTURE  
PAPER 1  
TIME: 2 HOURS

### INSTRUCTIONS TO CANDIDATES:

- Write your **Name**, **Index number** and **School** in the spaces provided above.
- Sign** and write the **Date** of Examination in the spaces provided above.
- This paper consists of **THREE** Sections **A**, **B** and **C**.
- Answer **ALL** questions in Section **A** and **B** and any **TWO** questions in Section **C**.
- Answers should be written in the spaces provided.
- Candidates should check to ensure that no questions are missing.

### FOR EXAMINER'S USE ONLY

SECTION	QUESTIONS	MAX. SCORE	CANDIDATE SCORE
A	1 – 16	30	
B	17 – 22	20	
C	23	20	
	24	20	
	25	20	
<b>Total Score</b>		<b>90</b>	

**SECTION A (30 MARKS)**

**Answer ALL Questions in the Spaces Provided**

1. (a) What is a farming system? (½mk)

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(b) Highlight **three** factors that affect production scale. (1½mks)

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2. (i) State **four** policies the Kenyan government should institute to reduce amount of imported goods. (2mks)

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(ii) Give **two** positive effects of wind in Agriculture. (1mk)

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3. State **four** reasons why land should be prepared before onset of rains. (2mks)

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4. Outline **four** circumstances under which one would choose to use surface irrigation. (2mks)

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5. (i) What is salination. (½mks)

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(ii) State **three** effects of salination in crop production. (1½mks)

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6. Name **two** constituents of a breeding record. (1mk)

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7. Give a reason why nitrogenous fertilizers: (1mk)

(i) Should be applied to moist soils:.....

.....

(ii) Should be applied to established crops:.....

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8. (a) State **four** disadvantages of using vegetative material in crop propagation. (2mks)

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(b) Describe **four** importance of a nursery in crop propagation. (2mks)

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9. List **two** methods of pruning crops. (1mk)

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10. State **four** effects of too much nitrogenous fertilizers in production of tomatoes.

(2mks)

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11. (a) State **four** causes of land fragmentation and land sub-division. (2mks)

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(b) Classify weeds on the basis of plant morphology. (1mk)

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12. State **three** effects of mass wasting (solifluction) (1½mks)

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13. Define the following terms: (1mk)

(i) Integrated Pest Management:.....

.....

(ii) Economic Injury Level (EIL): .....

.....

14. State **two** reasons for burning sugarcane fields before harvesting. (1mk)

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15. (a) State **two** effects of early defoliation. (1mk)

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(b) State the law of substitution. (1mk)

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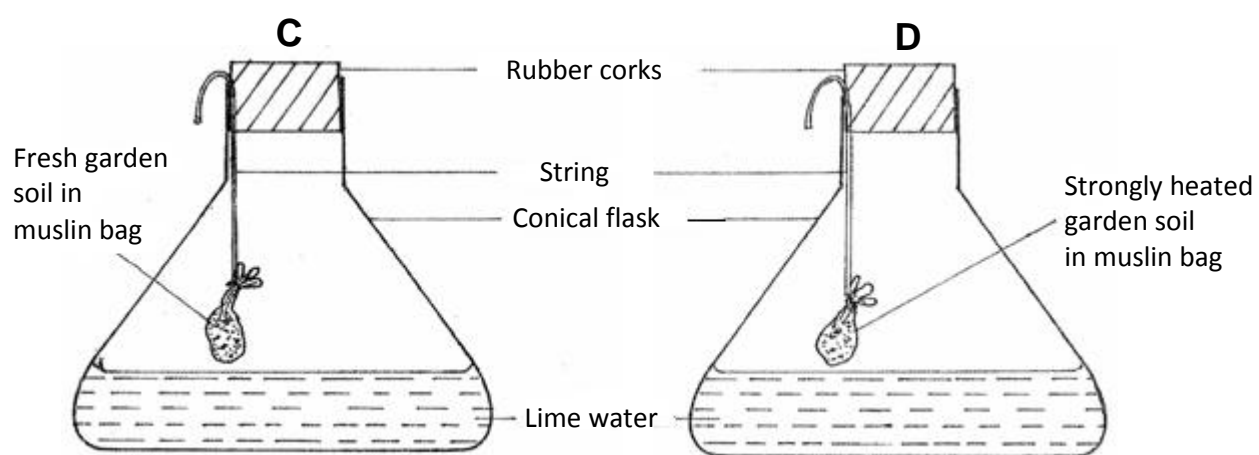
16. Give **two** sites for Agroforestry trees. (1mk)

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**SECTION B (20 MARKS)**

**Answer all questions in the spaces provided in this section**

17. Form one students of Mang'ure High School set up an experiment as shown below to study an aspect of soil. The set up was left for six hours. Study it and answer the questions that follow.



(a) What was the aim of the experiment? (1mk)

.....

(b) State **one** observation that was made in each of the flasks C and D. (1mk)

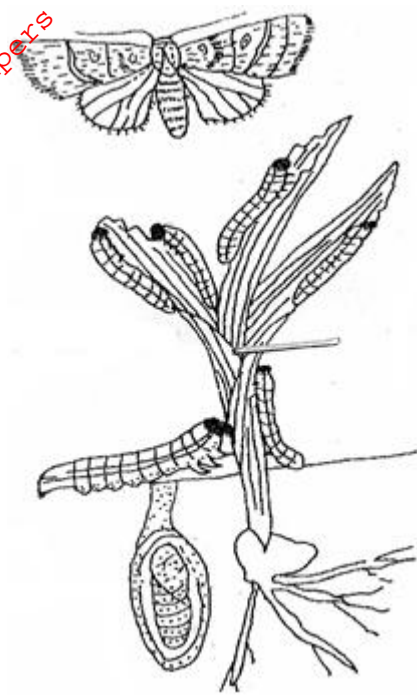
C: .....

D: .....

(c) Why was the soil in flask D strongly heated? (1mk)

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18. The diagram below represents a crop pest. Study it and answer the questions that follow:



(a) Identify the pests. (½ mk)

.....

(b) Which type of mouth parts are possessed by the pests? (½ mk)

.....

(c) State the kind of damage caused by the pests and its effect on crop development.

(1mk)

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(d) Why is the infestation of the pest regarded as an epidemic? (1mk)

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19. The diagram below illustrate common weeds in arable land. Study them carefully and answer the questions that follow:



(a) Identify the weeds labeled: (1mk)

P: .....

Q: .....

(b) State the effects of weed labeled P to livestock. (1mk)

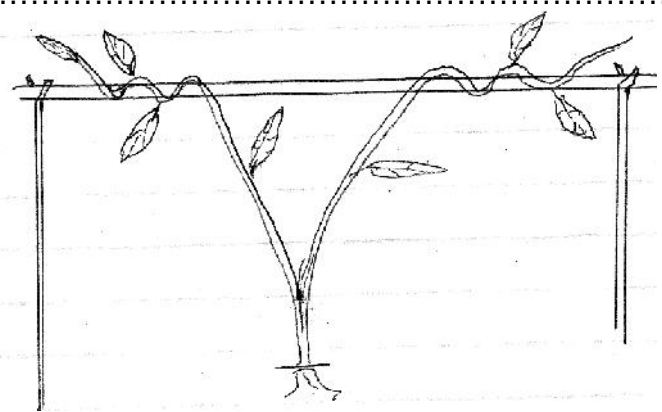
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(c) Give **one** reason why it is difficult to control the weed labeled Q. (1mk)

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20. (a) Identify the practice shown below. (½ mk)

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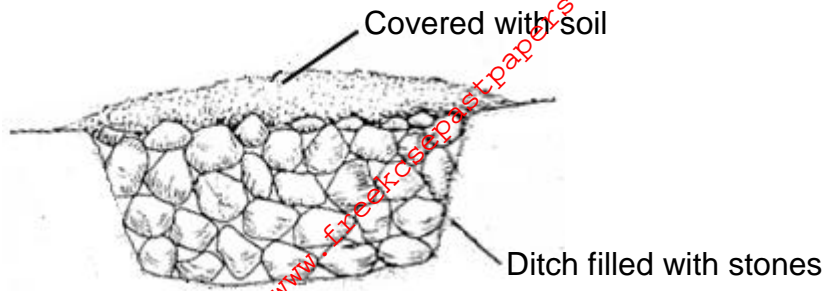
(b) Name **two** crops in which the practice above is applied. (1mk)

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(c) State **three** reasons for carrying out the above practice on the crops. (1½mks)

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21. The illustration below shows a structure for removing excess water in marshy areas. Study it carefully and use it to answer the questions that follow:



(a) Identify the structure. (1mk)

.....

(b) Explain how the above structure removes excess water in waterlogged areas. (2mks)

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22. Mr. Murei wishes to know whether replacing 3 hectares of maize with potatoes the following season would be worthwhile. The fertilizer would be increased from sh. 4,000 per hectare to sh. 6,000 per hectare. He will also incur cost on maize seeds at sh. 1200 per hectare and potatoes seeds at sh. 3,000 per hectare. The produce from maize was totaling sh. 90,000 and for potatoes will be totaling sh. 120,000.

Prepare a partial budget to justify Mr. Murei's wish. (5mks)

**SECTION C**

**Answer any two questions in the spaces provided**

23. (a) Describe **five** factors that determine the quality of farmyard manure. (5mks)
- (b) Give **five** reasons why minimum tillage is practiced. (5mks)
- (c) Describe **five** cultural methods of pest control. (5mks)
- (d) Explain **five** roles of trees in soil and water conservation. (5mks)
24. (a) Outline **five** advantages of Land consolidation in agricultural productions. (5mks)
- (b) i) Name **four** types of books in the farm accounts. (4mks)
- ii) List the information in the receipts. (5mks)
- (c) State **six** disadvantages of tillage operation in weed control. (6mks)
25. (a) Describe how sugarcane is harvested until it is ready to mill sugar at the factory (5mks)
- (b) What are the advantages of mixed grass-legume pasture over pure grass pasture? (5mks)
- (c) Explain the marketing functions in Agriculture. (10mks)

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