

Name: ..... Index No.....

443/1  
AGRICULTURE  
Paper 1  
Oct./Nov. 2012  
2 hours

Candidate's Signature.....

Date: .....

THE KENYA NATIONAL EXAMINATIONS COUNCIL  
Kenya Certificate of Secondary Education  
Paper 1  
2 hours

443/1 – Agriculture – P1 Wednesday 10.30 am – 12.30 pm 14/11/2012 (2 <sup>nd</sup> Session)
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## Instructions to candidates

- (a) Write your name and index number in the spaces provided above.
- (b) Sign and write the date of examination in the spaces provided above
- (c) This paper consists of three sections: A, B and C.
- (d) Answer all the questions in sections A and B and any two questions from section C.
- (e) Answers should be written in the spaces provided
- (f) This paper consists of 16 printed pages
- (g) Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

## For Examiner's Use Only

Section	Questions	Maximum Score	Candidate's Score
A	1 – 16	30	
B	17 - 22	20	
C		20	
		20	
	Total Score	90	



## SECTION A (30 marks)

Answer ALL the questions in this section in the spaces provided

1. Name the part harvested for each of the following crops:

(a) onions

..... (1/2 mark)

(b) carrots

..... (1/2 mark)

(c) coffee

..... (1/2 mark)

2. State four biotic factors that influence crop production. (2 marks)

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3. Name four methods of controlling crop pests. (2 marks)

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4. State four ways of harvesting water on the farm (2 marks)

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5. Name four farm records that should be kept by a poultry farmer. (2 marks)

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6. State four disadvantages of using organic manure in crop production. (2 marks)

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7. Give two ways in which pastures are classified. (1 mark)

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8. State four disadvantages of organic mulches. (2 marks)

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9. Give five advantages of practicing crop rotation. (2 ½ marks)

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10. State two advantages of earthing up in crop production. (1 mark)

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11. Give four harmful effects of weeds on crop production. (2 marks)

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12. State three advantages of shifting cultivation. (1 ½ marks)

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13. Give five advantages of zero grazing in dairy farming. (2 ½ marks)

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14. State four factors that determine the stage at which a crop is harvested. (2 marks)

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15. State four ways in which land reform can be implemented in Kenya. (2 marks)

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16. Give four factors that influence the number of secondary cultivation is seedbed preparation. (2 marks)

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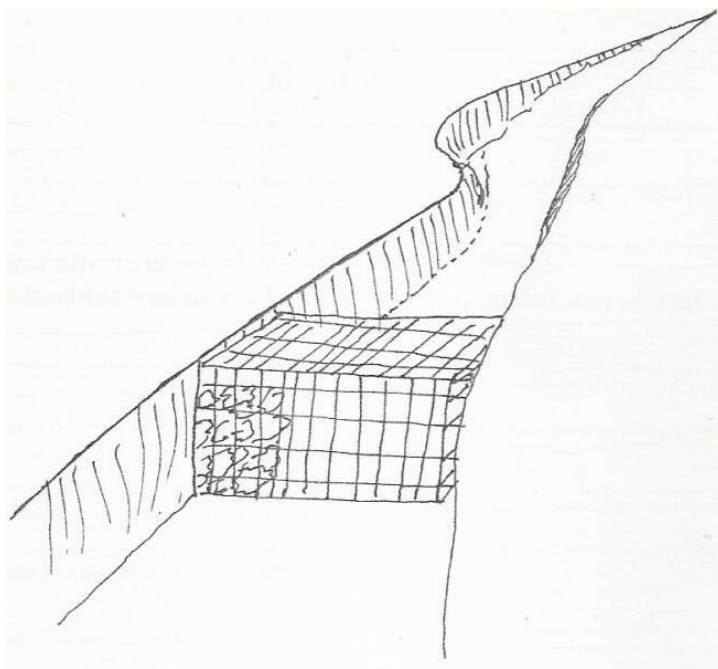
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SECTION B (20 marks)

Answer ALL the questions in this section in the spaces provided

17. The illustration below shows a structure used for controlling soil erosion. Study it carefully and answer the questions that follow.



- (a) Identify the structure. (1 mark)

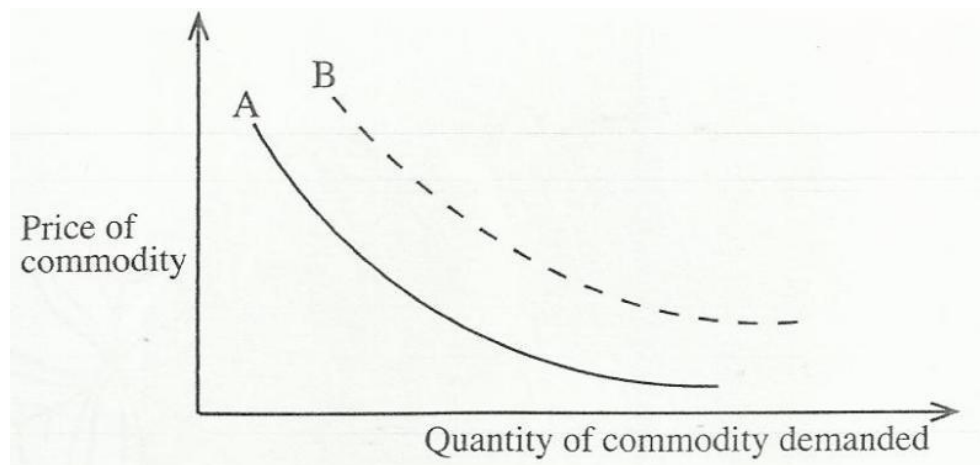
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- (b) Explain two ways in which the structure helps to control soil erosion. (2 marks)

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18. The diagram below illustrates the law of demand in agricultural marketing. Study it and answer the questions that follow.



- (a) Give a reason for the shape of the curve labeled A. (1 mark)

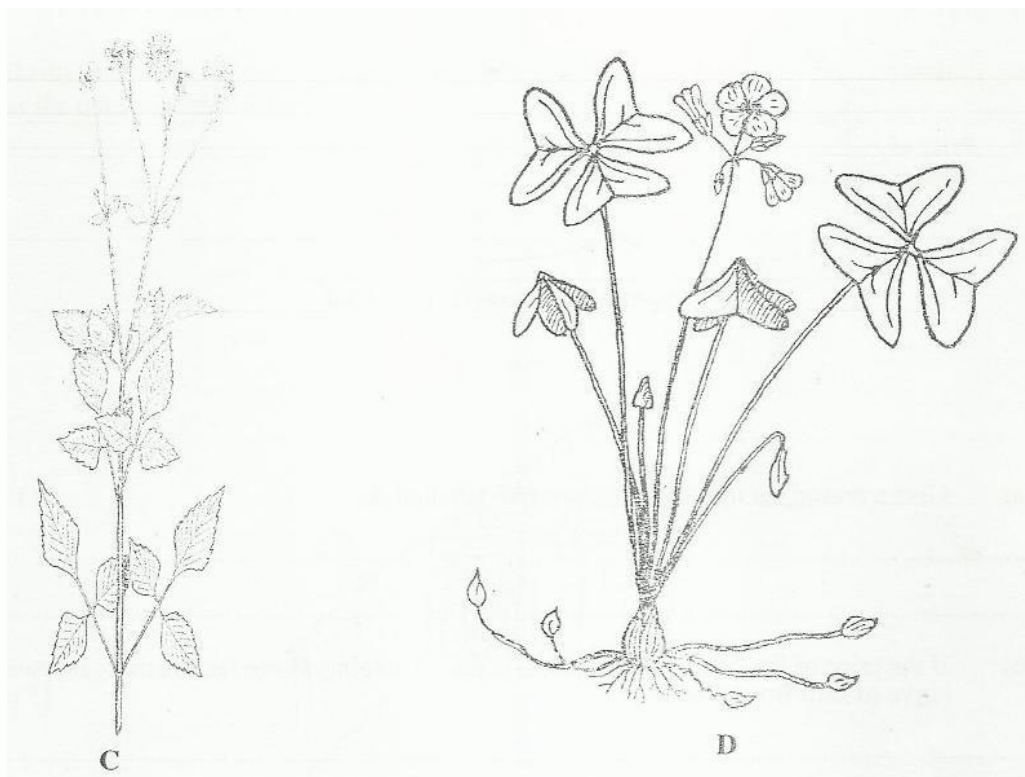
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- (b) If the price of the commodity remains constant, explain three factors that can cause the curve to shift from A to B. (3 marks)

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



- (a) Identify the weed labeled D. (1 mark)

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- (b) Classify the weed labeled C according to plant morphology. (1 mark)

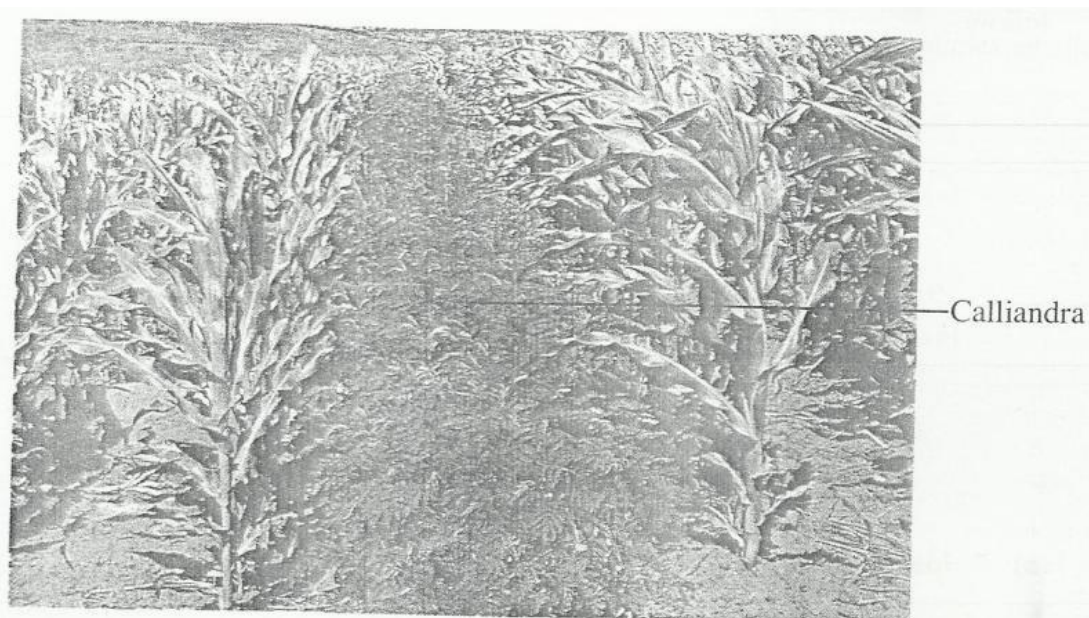
- (c) Give one reason why it is difficult to control the weed labeled D. (1 mark)

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20. The diagram below illustrates an agroforestry practice. Study it and answer the questions that follow.



- (a) Identify the agroforestry practice illustrated above. (1 mark)

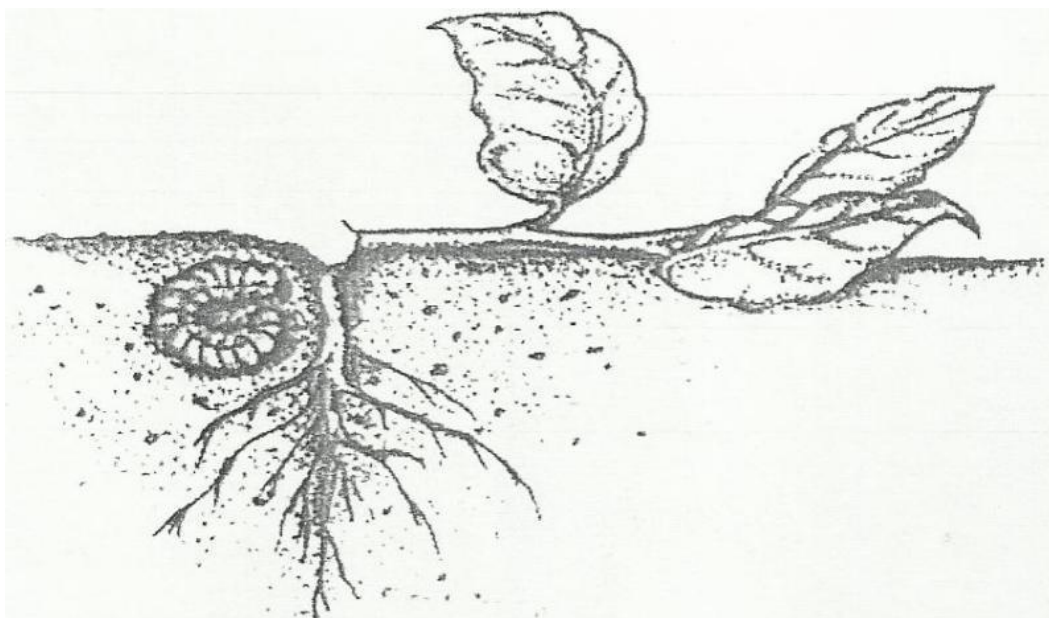
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- (b) Explain three benefits of the practice illustrated above. (3 marks)

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21. The diagram below shows a pest and the damaged crop. Study it and answer the questions that follow.



- (a) Identify the crop pest illustrated above. (1 mark)

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- (b) Explain two ways of controlling the pest. (2 marks)

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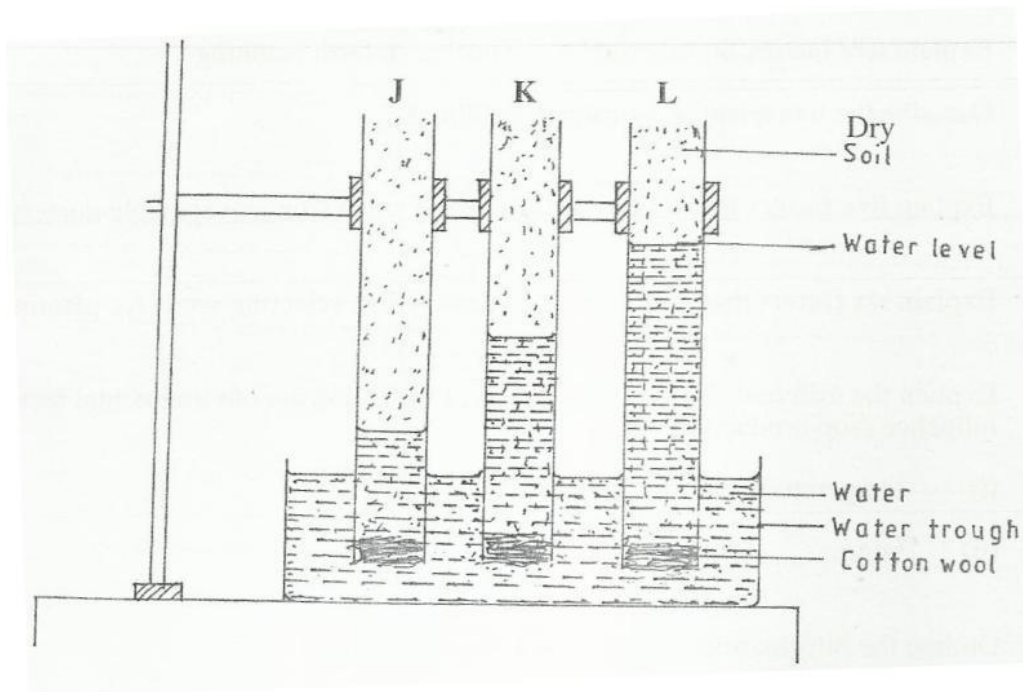
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22. The diagram below illustrates an investigation on a property of soil using soil samples labeled J, K and L.



- (a) If the levels of water shown in the diagram were observed after three hours, name the property of soil being investigated. (1 mark)

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- (b) What is the relationship between the soil property named in (a) above and the size of soil particles? (1 mark)

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- (c) Which soil sample would be suitable for growing paddy rice? (1 mark)

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SECTION C (40 marks)

Answer any TWO questions from this section in the spaces provided after question 25.

23. (a) Explain five factors that should be considered in farm planning. (10 marks)
- (b) Describe the transplanting of tomato seedlings. (10 marks)
24. (a) Explain five factors that should be considered when siting a vegetable nursery. (5 marks)
- (b) Explain six factors that should be considered when selecting seeds for planting. (6 marks)
- (c) Explain the difference ways in which of the following environmental factors influence crop production:
- (i) temperature; (4 marks)
- (ii) wind (5 marks)
25. (a) Outline the information contained in a Purchase Order. (5 marks)
- (b) Describe the harvesting of tea. (6 marks)
- (c) Explain the importance of irrigation in crop production (5 marks)
- (d) Describe the role of magnesium in crop production. (4 marks)









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