

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**  
**AGRICULTURE**  
**Paper 1**  
**2 hours**

<b>443/1 - Agriculture - P1</b> Wednesday 10.30 am - 12.30 pm 14/11/2012 (2nd 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
<b>A</b>	1 - 16	30	
<b>B</b>	17 - 22	20	
<b>C</b>		20	
		20	
<b>Total Score</b>		<b>90</b>	

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Paper 1  
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**Turn over**

**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

..... (½ mark)

(b) carrots

..... (½ mark)

(c) coffee

..... (½ 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 practising crop rotation. (2½ 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. (1½ marks)

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13 Give **five** advantages of zero grazing in dairy farming. (2½ 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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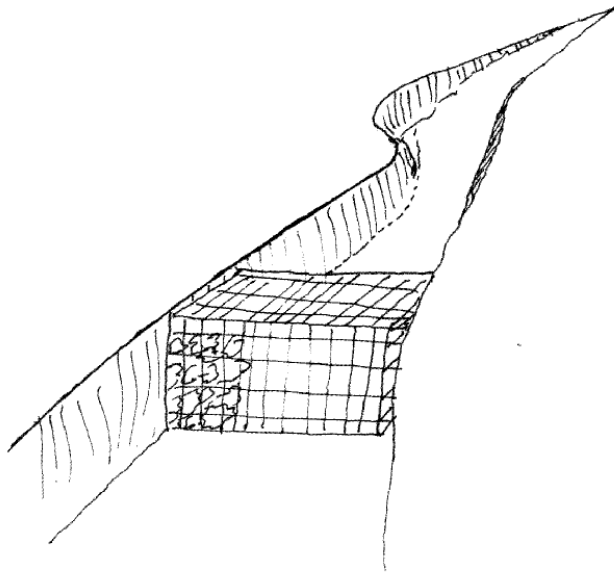
**16** Give **four** factors that influence the number of secondary cultivations in seedbed preparation. (2 marks)

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6  
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.



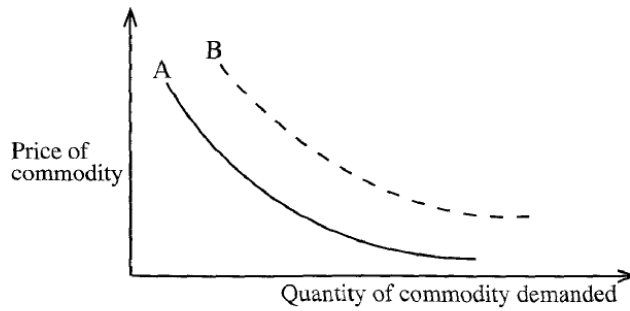
- (a) Identify the structure. (1 mark)

.....

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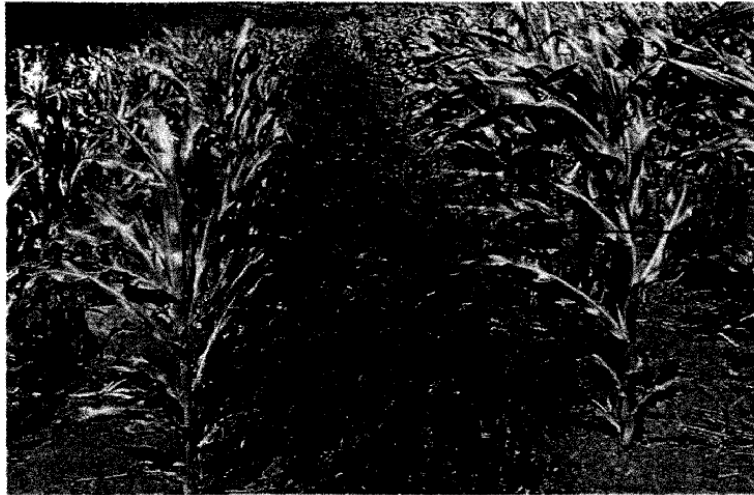
- 19 The diagrams below illustrate common weeds in arable land. Study them carefully and answer the questions that follow.



- (a) Identify the weed labelled **D**. (1 mark)
- .....
- (b) Classify the weed labelled **C** according to plant morphology. (1 mark)
- .....
- (c) Give **one** reason why it is difficult to control the weed labelled **D**. (1 mark)
- .....
- .....



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



—Calliandra

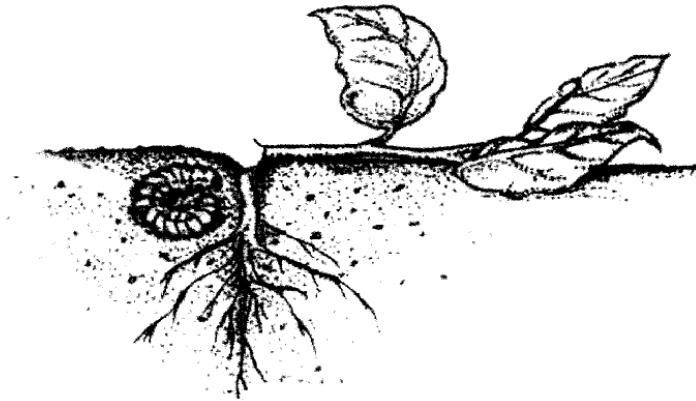
(a) Identify the agroforestry practice illustrated above. (1 mark)

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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.



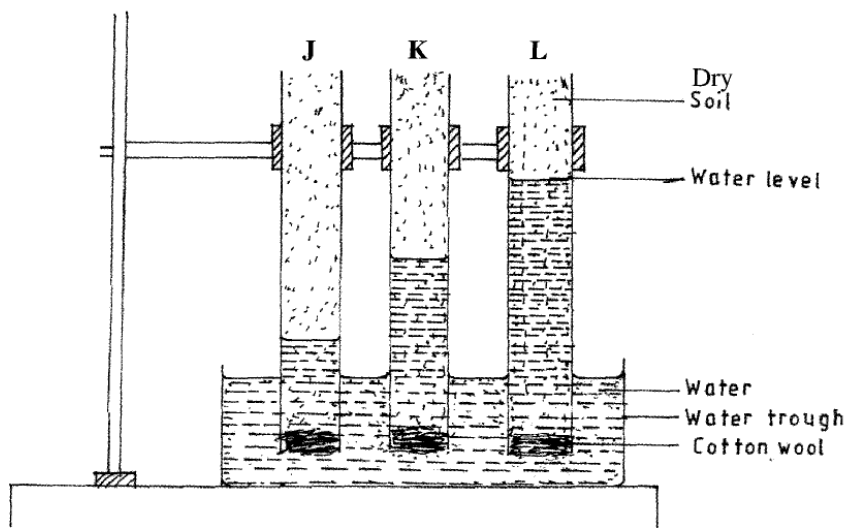
(a) Identify the crop pest illustrated above. (1 mark)

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

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- 22 The diagram below illustrates an investigation on a property of soil using soil samples labelled 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)
- .....
- (b) What is the relationship between the soil property named in (a) above and the size of soil particles? (1 mark)
- .....
- .....
- (c) Which soil sample would be suitable for growing paddy rice? (1 mark)
- .....

**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 different ways in which each 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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