

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

SCHOOL .....

443/1  
AGRICULTURE  
PAPER 1  
JULY / AUGUST 2014  
2 HOURS.

**KAMUKUNJI DISTRICT EVALUATION TEST  
Kenya Certificate of Secondary Education (KCSE)**

**INSTRUCTIONS TO CANDIDATES**

- ❖ *This paper consists of **three** sections. A, B and C*
- ❖ *Answer **all** questions in section A and B*
- ❖ *In section C answer any two questions in the spaces provided.*

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Section	Questions	Maximum Score	Candidate's Score
A	1 – 18	30	
B	19–24	20	
C	25-27	40	
	Total		

**This paper consists of 10 printed pages Candidates should check the question paper to ensure that both pages are printed as indicated and no questions are missing.**

**SECTION A (30 MARKS)**

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

1. **State two** reasons why a farmer should intercrop maize and beans. (2mks)

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2. **State two** post harvest practices of maize (1mks)

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3. **Name any three** methods which can be used to detect mineral nutrient deficiency in crops. (1½mks)

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4. **State three** methods of training crops. (1½mks)

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5. Name **three** macronutrients that can be used as liming elements. (1 ½mks)

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6. Give **four** benefits of organic farming. (2mks)

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7. State four importance of treating water in the farm 2mks

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8. Give four benefits of under sowing in pasture production. (2marks)

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9 Give two ways in which agriculture contributes to the development of industries (2mks)

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10. Give four apparatus which would be used to perform an experiment to determine the water holding capacity of a soil. (2mks)

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11. State four ways in which water pollution can be prevented. (2mks)

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12. Give four factors that should be considered when choosing the type of farming system to be practiced. (2mks)

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13. State three importance of parent material in the soil profile. (1½mks)

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14. Give four conditions under which shifting cultivation may be practicable. (2mks)

15. Define the term soil capping.

(1mk)

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16. State four characteristics of sub-soil.

(2mks)

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17. List two advantages of proper soil aeration in crop growth.

(1mk)

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18. Give two ways a farmer would improve the structure of a waterlogged clay soil.

(1mk)

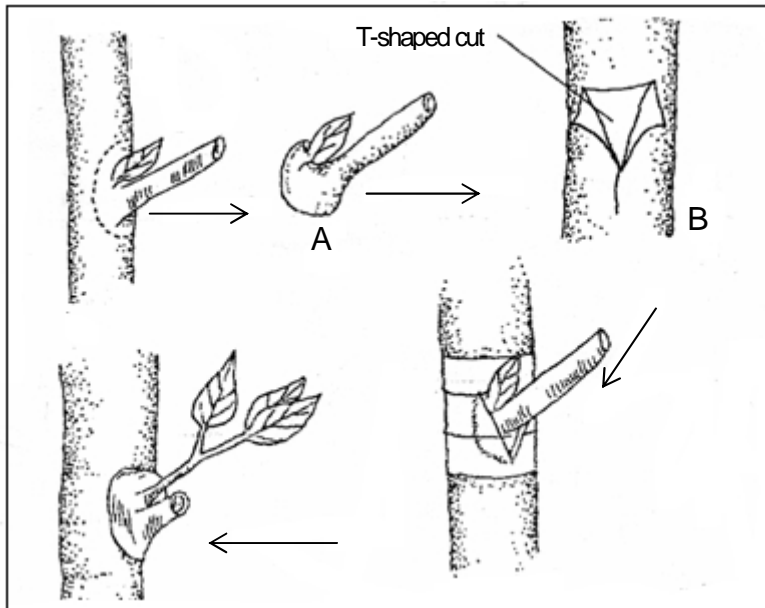
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**SECTION B (20 marks)**

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

19. Given that onions are planted at a spacing of 30cm x 8cm calculate the plant population in a plot of land measuring 4m x 3m show your working. (1½mks)

20. Study the following diagram and answer questions that follow. (2mks)



(a) Name the practice shown in the above diagram. (½mk)

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(b) Identify parts A and B. (1mk)

A.....

B.....

(c) Give **four** advantages of the above operation shown on the diagram in crop production. (2mks)

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21. The diagrams below shows some weeds.



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

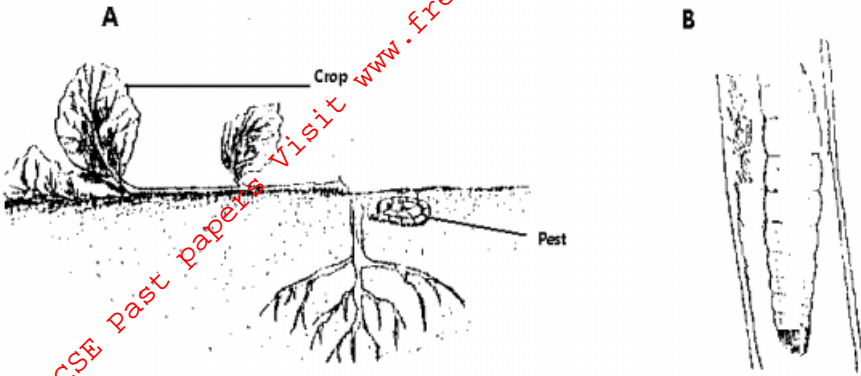
**C**

**D**

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

(c) **State two** economic importance of weed **D** (1mk)

22. 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**. (1mk)

**A**

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**B**

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(b) **State two** damages caused by pest **B** to a crop of maize. (1mk)

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(c) **Give two** cultural practices carried out to control the pest in **A**. (1mk)

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23(a) **State four** factors that should be considered when sitting compost manure heap/ pit (2mks)

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(b) When preparing compost manure explain the importance of each of the following.

(i) Addition of ash. (1mk)

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(ii) Regular turning of the compost manure. (1mk)

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(c) **State one** reason why the use of organic manure is not recommended in carrot production. (1mk)

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24(a) **Define** the term micro-catchment's as used in soil and water conservation. (½mk)

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(b) **Give two** types of micro- catchments. (1mk)

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## SECTION C (40 marks)

**Answer any two questions in this section in the spaces provided at the end of the section.**

25 (a) **Discuss** the harvesting of cotton under the following sub – headings.

- (i) Stage of harvesting . (3mks)
- (ii) Method and procedure of harvesting. (4mks)
- (iii) Precautions in harvesting. (3mks)

(b) **Explain** how various field practices help to control crop diseases. (10mks)

26. The inventory for Oruga farm as at 31st December, 2006 was as follows:

	Ksh.
Layers	30,000.00
Dairy cattle	120,000.00
Calves	15,000.00
Beans in store	7,000.00
Machinery	95,000.00
Building	75,000.00
Land	200,000.00
Cash at hand	5,000.00

The following information was also obtained from the farmers records.

	Kshs
Vegetable sales	5,000.00
Egg sales on credit	10,000.00
Milk sales on credit	13,000.00
Wages payable	5,600.00
Taxes payable	750.00
Interests payable	2,000.00
Farm input purchased on credit	19,800.00
Bank loan	213,000.00
Cash in Bank	20,000.00

a) Prepare a balance sheet for the farm. (14mks)

b) Explain the benefits that Oruga Farm would get by being a member of a dairy cooperative Society. (6marks)

27 a) Explain **five** methods of drainage (5mks)

b) Explain **five** factors to consider when choosing maize varieties for different ecological zones in Kenya. (5mks)

c) Outline **ten** effects of wind on agricultural production. (10mks)