

Name: .....Index No: .....  
Candidate's Signature:.....  
Date: .....

443/1  
AGRICULTURE  
PAPER 1  
JULY/AUGUST 2014  
TIME: 2 HOURS

# HOMA-BAY SUB-COUNTY JOINT EVALUATION EXAM

*Kenya Certificate of Secondary Education*

443/1  
Agriculture  
Paper 1  
2 hours

**INSTRUCTIONS TO CANDIDATES:**

- This paper contains **three** sections A, B and C
- Answer **ALL** the questions in section A and B
- Answer any **Two** questions from section C
- All answers should be written in the spaces provided.

**FOR EXAMINERS USE ONLY**

SECTION	QUESTIONS	MAX SCORE	CANDIDATES SCORE
A	1-14	30	
B	15-18	20	
C		20	
		20	
TOTAL		90	

This paper consists of 8 printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing.

**SECTION A (30MKS)**

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

1. State **two** reasons why farmers should be encouraged to practice organic farming (1mk)  
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2. State **two** ways in which crop rotation controls weeds (1mk)  
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3. List **two** market forces which help to determine the price of a commodity in a free market (1mk)  
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4. State **four** qualities considered when selecting seeds for planting (2mks)  
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5. State **four** advantages of crop rotation (2mks)  
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6. State **three** physical agents of weathering in soil formation ( 1 ½ mks)  
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7. Give **three** properties of a foliar fertilizer which makes it possible to be used as a foliar Feed (1 ½ mks)  
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8. Give **three** reasons why Banana should be pruned (1 ½ mks)  
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9. State **four** factors considered when classifying crop pests (2mks)

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10. Give **four** reasons for land fragmentation (2mks)
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11. State **two** mechanical methods used in separating soil in soil analysis (1mk)
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12. State **three** ways in which inorganic fertilizers are classified (1 ½ mks)
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13. State **three** effects of raindrops on bare soil ( 1 ½ mks)
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14. Give **three** reasons why layering would be preferred to the use of cutting as a method of raising planting materials ( 1 ½ mks)
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15. State the forms in which nitrogen is absorbed by plants (1mk)
- .....
16. Outline **four** factors which effect herbraidal selectivity (2mks)
- .....  
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17. State **four** natural factors that may influence soil erosion (2mks)
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18. Give **four** advantages of liberalization in marketing agricultural products (2mks)

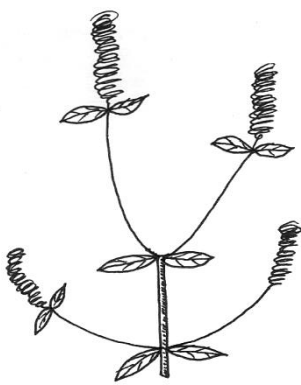
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19. Outline **four** factors which encourage soil erosion (2mks)

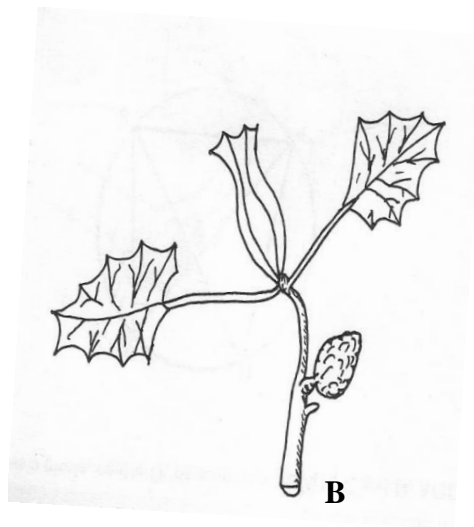
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**SECTION B (20 MKS)**  
*Answer ALL Questions in this section*

20. Below are illustrations of common weeds. Study them and answer the questions that follow



**A**



**B**

(a) Identify the weeds (2mks)

**A**.....

**B**.....

(b) State the harmful effects of the weed B above (1mk)

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(c) Give **four** advantages of leasehold tenure systems (2mks)

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21. Describe the procedure which should be followed when spraying a crop of onions using a fungicide in powder form, water and a knapsack sprayer (5mks)

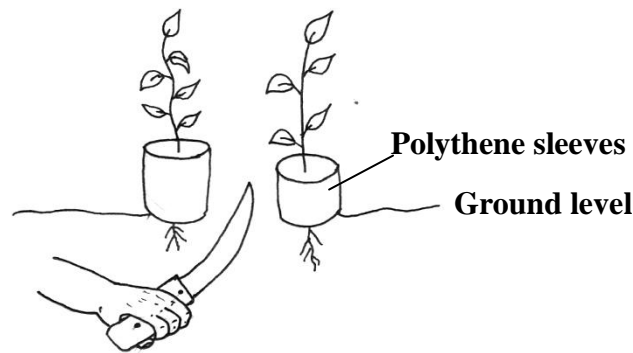
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22. The diagram below illustrates a nursery practice carried out on tree seedlings before transplanting. Study it carefully and then answer the questions below



(a) Identify the practice being carried out on the diagram (1mk)

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(b) Give **three** reasons why the practice is encouraged when raising tree seedlings (3mks)

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(c) Give **two** reasons why the polythene sleeves are used in the nursery bed as shown in the diagram (2mks)

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23. (a) Calculate the elasticity of demand when 20 bags of potatoes are demanded at a price of Kshs.1000 while 22 bags were demanded at Kshs.800. (4mks)

(b) Identify the type of elasticity of demand resulting from the situation above (1mk)

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### SECTION C (40MKS)

*Answer any two Questions in this section*

24. (a) Describe harvesting of pyrethrum under the following sub-headings
- (i) Procedure (4mks)
  - (ii) Precautions (6mks)
- (b) Describe the safety measures observed when handling farm herbicides (10mks)
25. Describe the production of Rhodes grass (*Chloris gayana*) under the following sub-headings
- (a) Land preparation (5mks)
  - (b) Pasture establishment (8mks)
  - (c) Maintenance (7mks)
26. (a) State **four** major questions a farm manager needs to ask and answer while preparing a partial budget (4mks)
- (b) Under what conditions is partial budget an appropriate tool for planning (4mks)
- (c) A farmer has 160 ha of land, 60 ha of which is under wheat, 32 ha under maize, 12ha under fodder crops and the rest under pastures. She wishes to know whether replacing 12 ha of maize with irish potatoes the following year would be worthwhile. The fertilizer would have to be increased from 5 bags per ha for maize to 7 bags per ha for irish potatoes and an extra 100 man –days of casual labour per ha will be necessary as a result of the change. The average yield of maize and irish potatoes is 45 and 115 bags/ha respectively. The prices are Shs. 1400 per bag for maize and Ksh.1200 per bag for irish potatoes seed costs are Sh.2500 per ha for maize and Shs. 30,000 per ha for irish potatoes. Fertilizer costs are Shs.1300 per bag. Labour is paid at Shs. 150 per man-day.
- Draw up a partial budget and indicate the effects of the change (12mks)

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**ANSWERS:**

Order a copy of answers from [www.schoolsnetkenya.com/order-e-copy](http://www.schoolsnetkenya.com/order-e-copy)

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