

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

School: ..... Date: ..... Candidate's Sign .....

**443/1**

**AGRICULTURE**

**PAPER 1**

**FORM 4**

**MARCH / APRIL 2013**

**TIME: 2 HOURS**

## **WESTERN ZONE JOINT EXAMINATIONS - 2013**

### **(WEZOJE)**

**Kenya Certificate of Secondary Education (K.C.S.E)**

#### **INSTRUCTIONS TO CANDIDATES**

1. Write your name, School and Index Number in the spaces provided above.
2. Sign and write the date of examination in spaces provided above.
3. Answer all the questions in section A and B and ANY TWO questionS in from section C.

#### **FOR EXAMINER'S USE ONLY**

<b>SECTION</b>	<b>MAXIMUM SCORE</b>	<b>CANDIDATE SCORE</b>
A	30	
B	20	
C	40	
<b>TOTAL</b>	<b>90</b>	

*This paper consists of 8 printed pages.*

*Candidates should check the question paper to ensure that all pages are printed as indicated and no questions are missing.*

**SECTION A: (30MARKS)**

**Answer all questions in this section**

1. State **two** practices that are carried out during hardening off of seedlings. (1mark)

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2. State **two** conditions under which opportunity cost may be zero (1mark)

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3. Give **four** advantages of organic farming. (2marks)

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4. Calculate the amount of  $P_2O_5$  contained in 200kg of a compound fertilizer 20-20-0. (2marks)

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5. Outline **four** reasons for controlling weeds on pasture fields (2marks)

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6. State **four** benefits of sowing annual crops early. (2marks)

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7. Give **four** reasons for proper drying of grains before storage. (2marks)

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8. Explain the following terms used in crop production. (2marks)

a) Pricking out

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b) Rogueing

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9. Give **two** possible causes of swelling on roots of legumes. (2marks)

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10. Outline **six** measures taken to overcome problem of shortages and unreliable rainfall. (3marks)

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11. List **three** aspects of light that influence crop growth. (1½ marks)

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12. State **four** general symptoms of viral infections in crops. (2marks)

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13. Give the vegetative propagation materials for the following crops. (1½ marks)

i) Sisal.

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ii) Pineapples.

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iii) Irish potatoes.

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14. List **four** precautions observed when harvesting pyrethrum. (2marks)

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15. Give **two** factors that encourage forking in carrots. (1mark)

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16. a) Explain the following terms. (2marks)

i) Opportunity cost.

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ii) Scarcity

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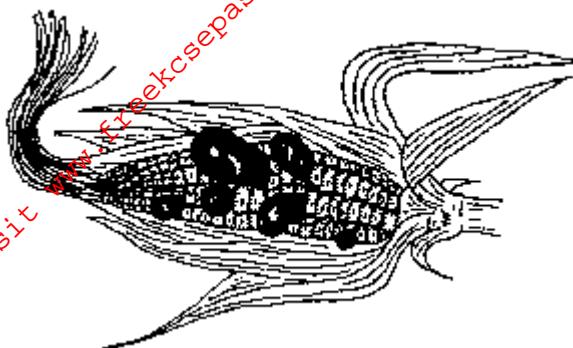
- b) State **two** ways of carrying out overhead irrigation. (1mark)

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**SECTION B: (20 MARKS)**

**Answer all questions in this section**

17. a) Study the diagram below and answer the questions that follow.

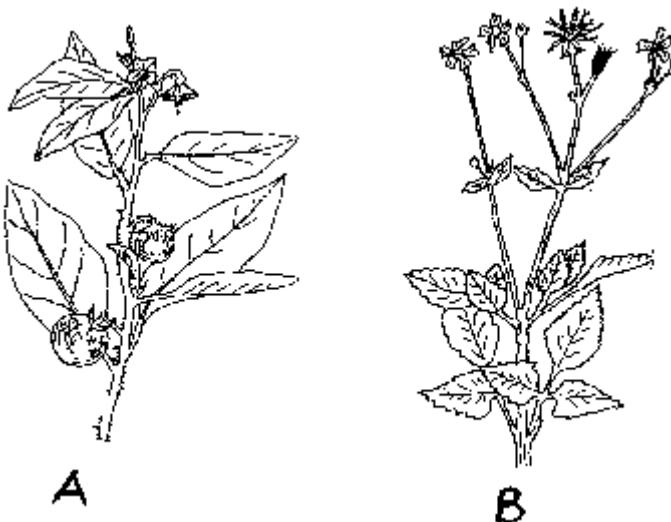


- i) Identify the disease in the diagram above. (1mark)

- b) Name **three** other crops attacked by the similar condition. (3marks)

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18. Study the diagram below and answer the questions that follow.



- a) Identify the above weeds (2marks)

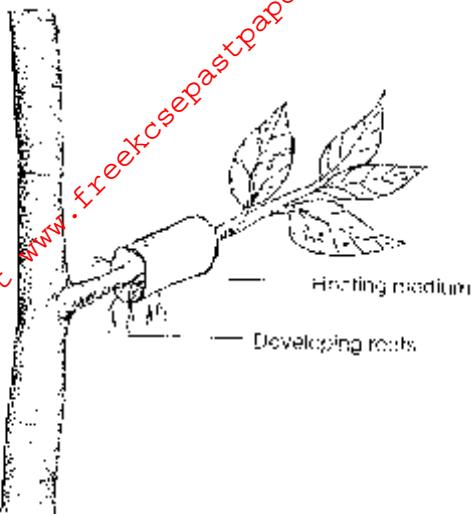
A: .....

B: .....

- b) How is weed labelled B adapted to survive in unfavourable conditions? (2marks)

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19. Study the following illustration



- a) Identify the above method of crop propagation (1mark)

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- b) Describe the procedure of carrying out the above practical (5marks)

- c) State **two** importance of tissue culture in crop propagation. (2marks)

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## SECTION C: (40 MARKS)

**Answer any two questions ~~in~~ in this section in the spaces provided.**

20. Discuss production of maize under the following sub-heading. (3marks)

  - a) Land preparation. (5marks)
  - b) Planting. (4marks)
  - c) Field practices. (2marks)
  - d) Pest and disease control. (2marks)
  - e) Harvesting. (4marks)
  - f) Post-harvest practices. (8marks)

21. a) Discuss the advantages of land consolidation and registration. (12marks)

b) Discuss the cultural methods of pest control in crops. (12marks)

22. a) Discuss environmental factors leading to reduction in crop yields. (8marks)

b) Discuss the practices that ensure uniform seed germination in crop production. (8marks)



