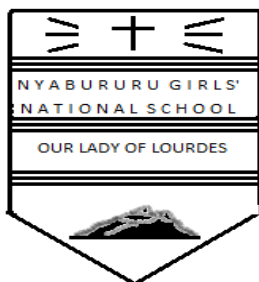


NAME.....CLASS.... No.....CLASS..... SIGN.....

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INDEX No .....



DATE DONE.....

INVIGILATOR.....

DATE RETURNED.....

DATE REVISED.....

***Kenya Certificate of Secondary Education***

**AGRICULTURE PAPER 443/1**

**PAPER 1**

**TIME: 2 HOURS**

**INSTRUCTIONS TO CANDIDATES**

- Write your name and index number in the spaces provided above.
- This paper consists of **THREE** sections: A , B and C
- Answer **ALL** the questions in sections A and B and any **TWO** questions in section C
- ALL answers **MUST** be written in the spaces provided.
- This paper consists of 8 printed pages.
- Candidates should check to ensure that all pages are printed as indicated and no question is missing

**FOR EXAMINER'S USE ONLY**

	Questions	Maximum score	Candidate's score
A	1 - 19	30 marks	
B	20 - 24	20 marks	
C	25 - 27	40 marks	
Total		90	

**SECTION A (30 MARKS)**

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

1. Give four effects of crop pests on maize production. (2marks)
  
  
  
  
  
  
  
  
  
  
2. State two properties of phosphatic fertilizers. (1mark)
  
  
  
  
  
  
  
  
  
  
3. Outline three agents of chemical weathering. (1 ½ marks)
  
  
  
  
  
  
  
  
  
  
4. Give three reasons of cutting back pyrethrum. (1 ½ marks)
  
  
  
  
  
  
  
  
  
  
5. Mention four factors that influence the choice of implements for primary tillage. (2marks)
  
  
  
  
  
  
  
  
  
  
6. State two methods of frame formation in tea. (1mark)
  
  
  
  
  
  
  
  
  
  
7. State how you can prevent the following conditions during carrot production. (1 ½ marks)
  - (a) Cracking.
  
  
  
  
  
  
  
  - (b) Forking.

(c) Greening.

8. List three types of product-product relationship in agricultural economics. (1 ½ marks)

9. List four beneficial biotic factors that influence agriculture. (2marks)

10. Differentiate between contact and systemic herbicides in weed control. (1mark)

11. State two effects of river bank erosion . (1mark)

12. State four factors that determine the depth of planting. (2marks)

13. State one way in which inorganic mulch helps to conserve soil water. (1mark)

14. Give the meaning of the following terms as used in crop pest's control. (2marks)

(a) Economic injury level

(b) Inter-grated pest management

15. Outline four steps followed during land adjudication. (2marks)

16. Give four reasons of seed selection in crop production. (2marks)

17. State two ways of utilizing forage on the farm. (1mark)

18. Name four financial documents in farm accounts (2marks)

19. State four advantages of practicing mixed farming in Kenya. (2marks)

**SECTION B (20 MARKS)**

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

20. The diagram below illustrates a crop disease. Study it carefully and use it to answer the questions that follow

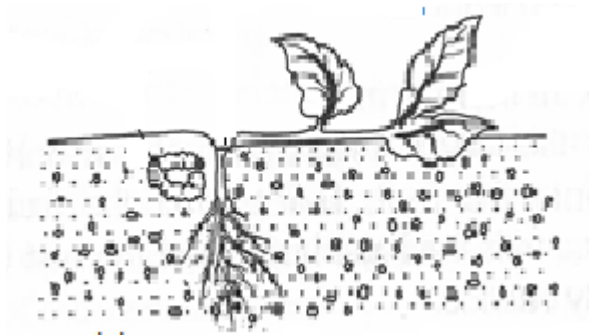


(a) Identify the disease illustrated above (1mark)

(b) Give two causes of the disease you have identified in (a) above. (2marks)

(c) State two control measures of the disease illustrated above. (2marks)

21. Below is an illustration of a cabbage seedling attacked by a pest. Study it carefully and answer the questions that follow.



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

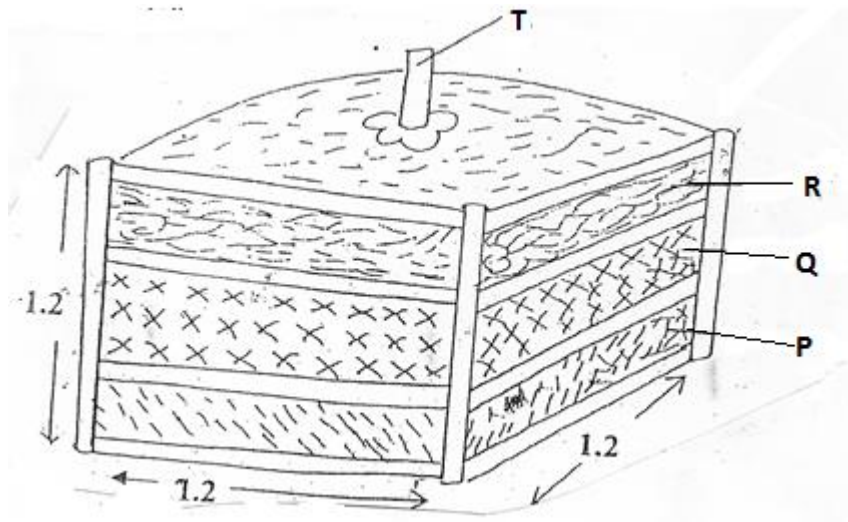
(b) State how the pest causes damage to the crop.

(1mark)

(c) Give one method of controlling the pest illustrated above.

( ½ mark)

22. The diagram below illustrates the preparation of compost manure. Study it carefully and answer the questions that follow



(a) Identify the layers labeled P, Q and R

(1 ½marks)

P

Q

R

(b) State one use of the parts labeled P and T

(2marks)

P

T

23. The diagram below is of a tea cutting. Study it carefully and answer the questions that follow

(a) Identify the disease (1mark)

(b) Apart from maize, give two other crops that are attacked by the disease (1mark)

(c) state two methods of controlling the disease. (2marks)

24. The table below illustrates the yield of maize in 50kg bags in response to application of different quantities of planting fertilizers. Study it carefully and answer the questions that follow

Fertilizer input in 50kg bags	Maize output in 50kg bags	Average product (AP)	Marginal product (MP)
0	6		
50	10	10.0	10.0
100	24	12.0	
150	31		7.0
200	36		5.0
250	40	8.0	
300	43		3.0
350	43		0
400	40		

(a) Complete the table by filling the blank spaces. (4marks)

(b) Suggest the best stage of production in relation to fertilizer application. (1mark)

**SECTION C (40 MARKS)**

**Answer only two questions in this section in the spaces provided**

25. (a) Explain the sources of capital to a farmer. (10marks)  
(b). Describe the factors that influence the soil erosion. (10marks)
26. (a) Describe the establishment of Napier grass under the following sub-headings
- i. Varieties (2marks)
  - ii. Land preparation (4marks)
  - iii. Planting. (4marks)
  - iv. Utilization (4mark)
- (b) Explain the advantages of a mixed legume - grass pasture. (6marks)
27. State and explain the stages followed when treating large volumes of water. (12marks)  
(b) Explain the ways by which farmers can adjust to risks and uncertainties. (8marks)