

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

443/1
AGRICULTURE
Paper 1
Time: 2 hours

CANDIDATE'S SIGNATURE.....

DATE.....

Kenya Certificate of Secondary Education
AGRICULTURE
Paper 1
Time: 2 hours

Instructions to candidates:

Write your name and index number in the spaces provided above.

Sign and write the date of examination in the spaces provided above.

*This paper consists of **THREE** Sections **A**, **B** and **C**.*

*Answer all questions in Section **A** and **B** and any **Two** in Section **C**.*

All answers must be written in the spaces provided.

For Examiner's Use Only

Section	Question	Maximum Score	Candidate's Score
A	1 - 17	30	
B	18 - 22	20	
C		20	
		20	
Total Score		90	

SECTION A: (30 MARKS)

Answer all questions from this section in the spaces provided.

1. Differentiate between:
(a) Extensive and intensive farming systems. (1 mark)

- (b) Aqua culture and apiculture. (1 mark)

2. State **two** disadvantages of pastoral nomadism system of farming. (1 mark)

3. State **two** ways in which soil depth influences crop production. (1 mark)

4. Give **two** ways of increasing light intensity in crop production. (2 marks)

5. Name **two** types of micro-catchments commonly used in water conservation. (1 mark)

6. Give **four** ways of acquiring land for agricultural use in Kenya today. (2 marks)

7. State **four** roles of mulch in soil and water conservation. (2 marks)
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8. Give **four** ways of water harvesting in a farm. (2 marks)
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9. State **four** methods that make weeds be competitive with desired crops in regard to successful means of propagation. (2 marks)
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-
10. A farmer is to apply a compound fertilizer 20-30-0 on a vegetable plot measuring 5m long by 4m wide at the rate of 200kg/ha. Calculate the amount of fertilizer the farmer requires for the plot (show your working). (3 marks)

11. State **four** advantages of drip irrigation. (2 marks)

12. (a) State **two** positive effects of high temperatures on crop production. (1 mark)

(b) What is forage defoliation? (1 mark)

13. State **two** importance of drainage of land. (2 marks)

14. Define the term opportunity cost. (1 mark)

15. State **four** effects of soil erosion. (2 marks)

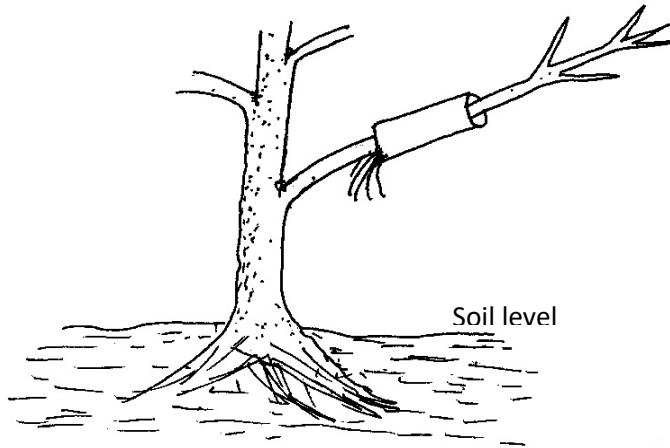
16. Name **two** methods used to control weeds in pastures. (1 mark)

17. Give **four** reasons why seeds may fail to germinate after planting. (2 marks)

SECTION B: (20 MARKS)

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

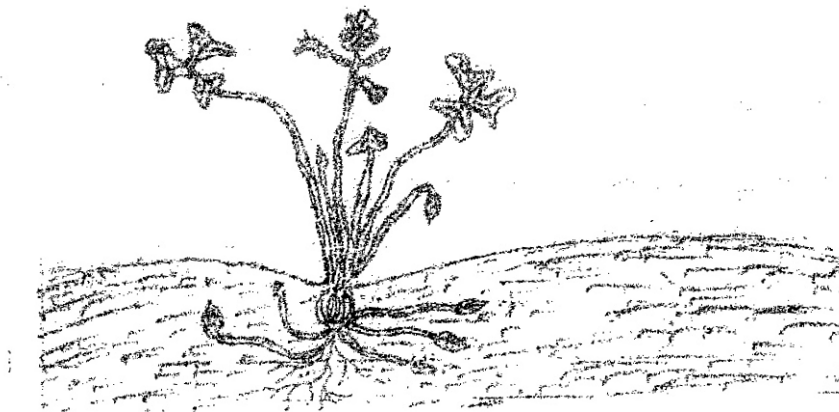
18. The diagram **below** shows a method of crop propagation.



(i) Identify the propagation method illustrated above. (1 mark)

(ii) State **three** ways of initiating faster root development in propagation method illustrated. (3 marks)

19. Study the diagram **below** and answer the questions that follow.

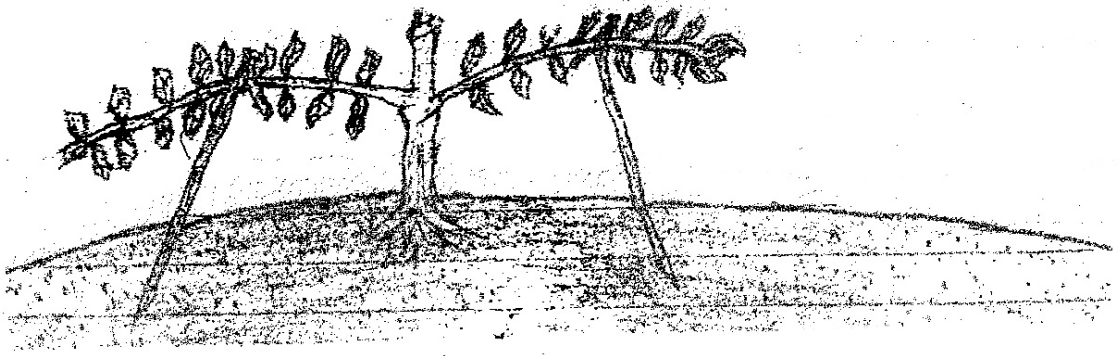


(i) Identify the weed. _____ (1 mark)

(ii) State the reason why it is hard to control the above named weed. (1 mark)

(iii) Classify the above weed according to the life cycle. _____ (1 mark)

20. The diagram **below** illustrates how a plucking table is developed in a given crop.



(i) Identify the crop where the above practice is carried out.

_____ (1 mark)

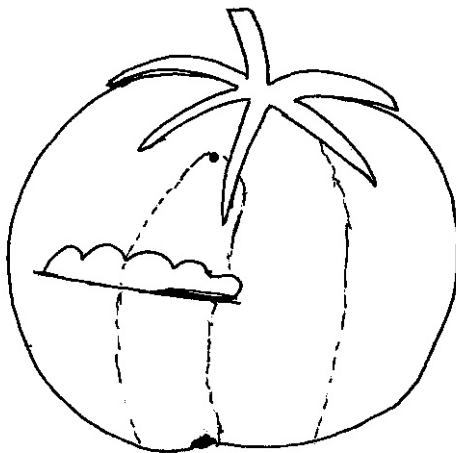
(ii) Name the method.

_____ (1 mark)

(iii) Mention **three** advantages of pruning a crop.

(3 marks)

21. The diagram **below** illustrates a tomato fruit infested by a certain pest.



(i) Identify the pest. _____ (1 mark)

(ii) State the damage caused by the pest on the fruit.

(1 mark)

(iii) Name **one** alternate host of the pest in the diagram.

(1 mark)

- (iv) State **two** methods of controlling the pest. (2 marks)

22. A plot of land measures 6.6m long by 3.6m wide. The plot is prepared for planting cabbages at a spacing of 60cm by 60cm. the outermost row start 30cm from the edges all around the plot.

Calculate:-

- (i) the number of rows falling on the width side of the plot. (1 mark)

- (ii) the number of cabbages seedlings that should be planted in the plot. (Show your working). (2 marks)

SECTION C: (40 MARKS)

Answer any TWO questions in this section in the spaces provided after question 25.

23. Describe the production of irrigated rice under the following sub-headings.
- (a) Land preparation. (7 marks)
 - (b) Water control. (5 marks)
 - (c) Fertilizer application (3 marks)
 - (d) Weed control. (5 marks)
24. (a) Explain various management practices that can be carried out by a farmer to maintain soil fertility on his farm. (10 marks)
- (b) Explain **five** ways in which soil loses its fertility. (5 marks)
- (c) Explain **five** importance of soil organic matter. (5 marks)
25. (a) State and explain **five** factors that influence spacing in crops. (10 marks)
- (b) State and explain **five** general methods of crop pest and disease control. (10 marks)
