

Name:..... ADM No:.....

Candidate's Signature:.....

Date:.....

443/1
AGRICULTURE
Paper 1
Time: 2 Hours

Kenya Certificate of Secondary Education
443/1
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 extermination in the spaces provided above.

This paper consist of three sections A, B and C

Answer all the questions in section A and B and any two questions in section C.

Answer all questions in the spaces provided

For Examiner's Use Only

Section	Question	Maximum Score	Candidate's Score
A	1 – 20	30	
B	21 - 26	20	
C		20	
		20	
	Total Score	90	

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 (30 Marks)

Answer all the questions in this section in the spaces provided

1. State four methods of breaking seed dormancy in some crops before planting. (2mks)

.....
.....
.....
.....

2. Name four types of materials required to construct gabions used in water and soil conservation. (2mks)

.....
.....
.....
.....

3. Give four reasons why maize should be harvested at milk state for making silage. (2mks)

.....
.....
.....
.....

4. State two symptoms of coffee-berry disease (CBD) on a coffee plant. (1mk)

.....
.....

5. Give three reasons for practicing minimum tillage (1 ½ mks)

.....
.....
.....

6. What is opportunity cost in agricultural production? (½ mk)

.....
.....

7. List two ways in which pruning help to control diseases in tomatoes. (1mk)

.....
.....
.....

8. Give four factors which determine the time for planting a crop. (2mks)

.....
.....
.....
.....

9. Give two reasons why it is recommended to top dress maize at the height of 30-45cm with nitrogenous fertilizers (1mk)

.....
.....

10. State two disadvantages of overstocking in pasture management (1mk)

.....
.....

11. Give four factors that influence the quantity of water used in the farm (2mks)

.....
.....
.....
.....

12. What is a fertilizer grade? (½ mk)

.....
.....

13. State three ways in which overheating in silage could be controlled (1 ½ mks)

.....
.....
.....

14. State two causes of land fragmentation in Kenya (1mk)

.....
.....

15. State four effects of soil erosion in crop production (2mks)

.....
.....
.....
.....

16. Give four reasons why chemical pest control measures should be used as a last resort in crop production. (2mks)

.....
.....
.....
.....

17. State two disadvantages of state ownership of land tenure. (1mk)

.....
.....

18. Give four reasons why planting of trees and shrubs should be avoided at certain sites. (2mks)

.....
.....
.....
.....

19. Give four examples of agro-forestry trees used as fodder crops (2mks)

.....
.....
.....
.....

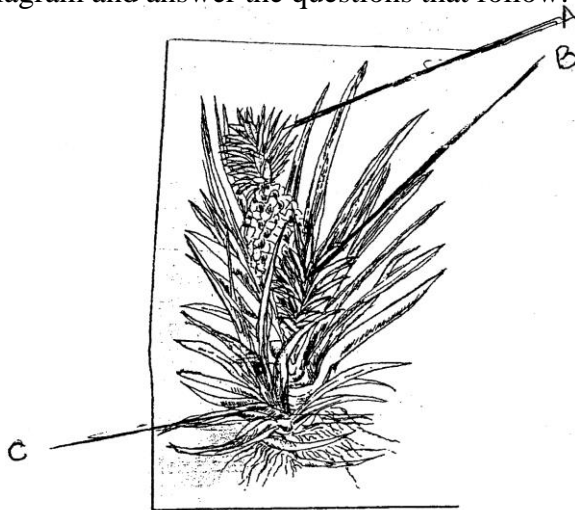
20. State four harmful effects of diseases to crops (2mks)

.....
.....
.....
.....

SECTION B (20 Marks)

Answer all the questions in this section in the spaces provided

21. Study the following diagram and answer the questions that follow:



(a) Give the identity of the following parts (1 ½ mks)

A.....

B.....

C.....

(b) Give two ecological factors that influence the sweetness of the above fruit. (1mk)

.....

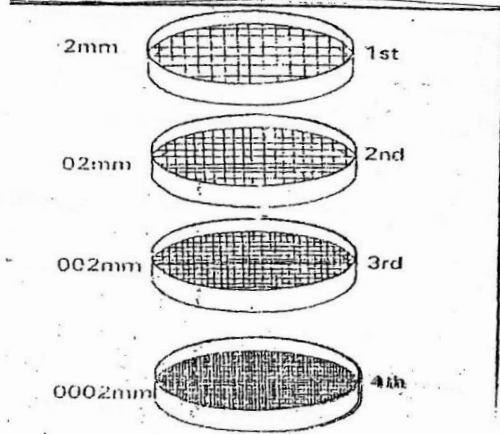
.....

(c) Which is the best part for propagation and why? (1mk)

.....

.....

22. Study the experiment below on soils and answer the questions thereafter after understanding the procedure. The soil was crushed without breaking the particles and put through a series of sieves beginning with the largest mesh shaking vigorously. The soil that remained in every sieve was weighed and recorded.



(a) What was the aim of the experiment? (½ mk)
.....

(b) Which soil was left on;
(i) 2.00mm sieve (½ mk)
.....

(ii) 0.20mm sieve? (½ mk)
.....

(iii) 0.002mm sieve (½ mk)
.....

(c) Which soil passed through the 0.002mm sieve (½ mk)
.....

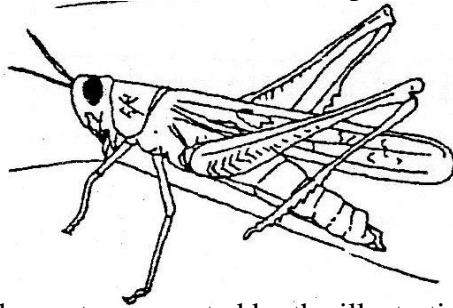
(d) State four properties of clay soils (2mks)
.....
.....
.....
.....

23. Explain the procedure followed in planting sleeved tree seedlings (3mks)
.....
.....
.....
.....
.....

24. (a) State five details you would include in marketing records (2 ½ mks)
.....
.....
.....
.....

(b) State two types of labour records (1mk)
.....
.....

25. The illustration below illustrates a common pest in a cultivated crop.



(a) Identify the pest represented by the illustration (½ mk)

.....

(b) State the method of feeding of the pest (1mk)

.....

(c) Give the control measure of the pest (1mk)

.....

26. Describe the procedure of preparing hay (2mks)

.....
.....
.....
.....

SECTION C (40 Marks)

Answer any two questions in this section in the spaces provided after

27. (a) Describe the effects of diseases on tomatoes in the field. (5mks)

(b) Describe the procedure of harvesting coffee (4mks)

(c) Explain the precautions observed during the harvesting of cotton (4mks)

(d) Explain the importance of organic matter in the soil (7mks)

28. (a) State and explain five ways in which human factors influence agriculture (5mks)

(b) Describe the preparation of compost manure using indore method (pit method) (9mks)

(c) State and explain how soil loses soil fertility. (6mks)

29. (a) Describe the production of maize for grain production under the following sub heading

(i) Four varieties common in Kenya (2mks)

(ii) Seedbed preparation (3mks)

(iii) Field practicals (5mks)

(b) State and explain five cultural methods used to control weeds (5mks)

(c) State and explain five plant characteristics that affect selectivity and effectiveness of herbicides. (5mks)

