

Name.....

Index No...../.....

School.....

Candidate's Signature.....

Date

443/1
AGRICULTURE
Paper 1
July/August 2009
2 ½ Hours

BORABU INTER - SECONDARY SCHOOL
JOINT EVALUATION TEST - 2009
Kenya Certificate of Secondary Education (K.C.S.E)

443/1
AGRICULTURE
Paper 1
July/August 2009
2 ½ Hours

Instructions to candidates

This paper has **THREE** sections **A, B** and **C**
Answer **ALL** questions in sections **A** and **B**
In section **C** answer any **TWO** questions
ALL answers must be written in the spaces provided.

FOR OFFICIAL USE ONLY

SECTION	QN	MAX SCORE	MARK SCORE
A	1-21	30	
B	22-26	20	
C	27	20	
	28	20	
	29	20	
TOTAL			

*This paper consists of 12 printed pages
Candidates should check the question paper to ensure
that all the 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. Outline **two** roles played by grassleys in soil erosion control (1mk)
.....
.....
2. Give **four** advantages of organic farming (2mks)
.....
.....
.....
3. How would hardpans be caused by cultivation? (1mk)
.....
.....
4. Why are droppers used in fencing? (½ mk)
.....
5. List **two** advantages of zero grazing (1mk)
.....
.....
6. List **four** environmental factors that affect crop distribution in Kenya (2mks)
.....
.....
.....
7. How are crop pests classified according to their mode of feeding? (1mk)
.....
.....
8. Give **two** ways by which overheating can be avoided in the process of making silage. (1mk)
.....
.....
9. Name **two** factors which increase the rate of leaching (1mk)
.....
.....
10. State **two** negative effects of strong winds in Agriculture (1mk)
.....
.....

11. Define the following terms as used in crop production.
- (i) Rougeing (½ mk)

- (ii) Lodging (½ mk)

12. State **three** poor agricultural practices that pollute water. (1 ½ mks)

13. (a) What **two** control measures would one take against ratoon stunting disease of sugarcane? (1mk)

- (b) Give **two** control measures of sugarcane mosaic disease. (1mk)

14. (a) What is land reform? (1mk)

- (b) State **two** objectives of land reforms (1mk)

15. State **two** importance of ridging (1mk)

16. State **four** disadvantages of overhead irrigation (2mks)

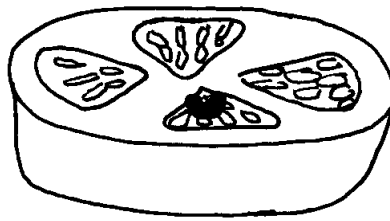
17. State **four** sources of nitrogen in the soil for plants (2mks)

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.....
18. (a) What is a weed? (½ mk)
.....
(b) State **four** factors that contribute to the competitive ability of weeds. (2mks)
.....
.....
.....
19. (a) What is solifluction? (½ mk)
.....
(b) State the factors that influence solifluction. (2mks)
.....
.....
.....
20. State **two** methods of breaking dormancy in certain seeds before planting (1mk)
.....
.....
21. What are pastures? (1mk)
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.....

SECTION B (20 MARKS)

Answer ALL questions in this section in the spaces provided.

22. The diagram below shows an orange which has been attacked



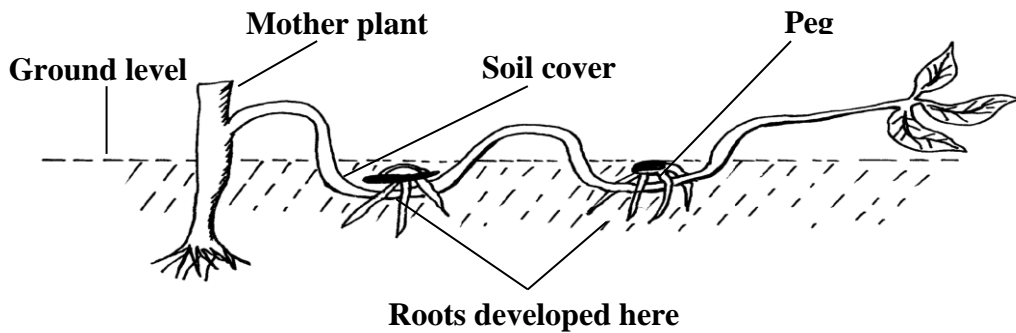
(a) Name the organism which has caused the damage. (1mk)

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(b) How can this problem be solved? (1mk)

.....

23. The diagram below represents a method of crop propagation.



(a) Identify the method of propagation (½ mk)

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(b) What is the benefit of the above method of crop propagation? (1mk)

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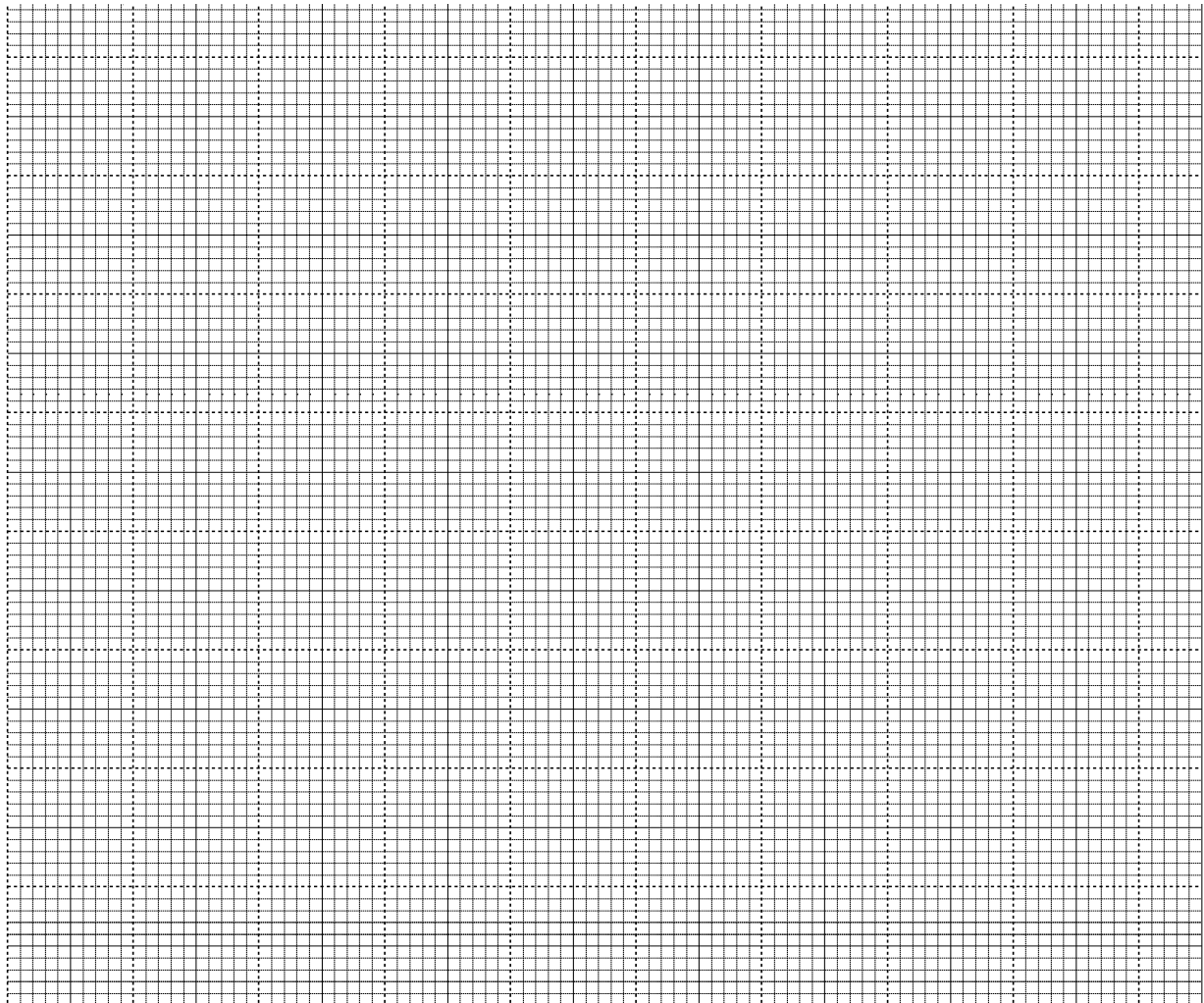
(c) List any **two** processes by which part of a system is induced to produce roots while attached to the mother plant. (2mks)

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24. The table below illustrates the relationship between the size of land (ha), input (NPK) fertilizer, total maize production (90 kg) bags and the marginal production in 90 kg maize bags.

Land (ha)	NPK fertilizer input (kg)	Total maize production in 90kg Bags	Marginal production in 90kg Bags
1	0	5	
1	30	12	
1	60	28	
1	90	47	
1	120	59	
1	150	65	
1	180	68	
1	210	70	
1	240	70	
1	270	68	

- (a) Fill in the column of marginal production in 90 kg bags of maize. (5mks)
- (b) By using grid provided below, plot output of maize in 90 kg bags in the Y – axis and the input of NPK fertilizer in (kg) in the x – axis. (4mks)



- (c) Name and state the law illustrated by your production curve. (1mk)

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.....
25. (a) What are the functions of marketing? (1mk)

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.....
(b) Outline **four** problems associated with the marketing of agricultural products (2mks)

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.....
26. Outline **three** functions of young farmers' club. (1 ½ mk)

SECTION C (40 MARKS)

Answer any TWO questions from this section.

27. Describe the establishment of cabbage seedlings under the following sub-heading:-
(a) Establishment of the nursery (7mks)
(b) Management of seedlings in the nursery (6mks)
(c) Transplanting of seedlings (7mks)

28. (a) Define the term soil fertility. (4mks)
(b) In what ways may a fertile soil lose its fertility? (8mks)
(c) How can farmers maintain and improve the fertility of soil on their farms? (8mks)

29. (a) Distinguish between the following terms:
(i) Macro – economics and micro - economics (4mks)
(ii) GDP and per capita income (8mks)
(b) Explain how the principle of demand and supply operates in the agricultural market. (4mks)
(c) How is Equilibrium price established? (4mks)

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Ruled lines for writing.

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