

# KIAMBU INTERZONAL

## KENYA CERTIFICATE OF SECONDARY EDUCATION

443/1

AGRICULTURE

PAPER 1

JULY/AUGUST-2009

TIME: 2 HOURS

### SECTION A: (30 MARKS)

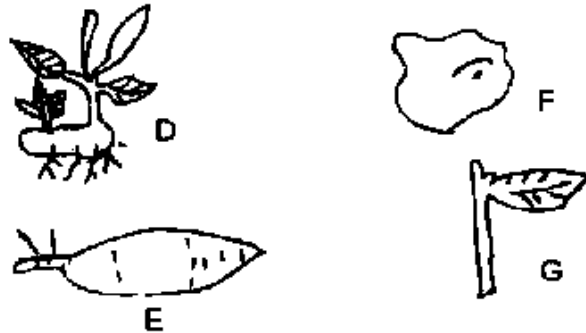
Answer all the questions.

1. Name four science aspect of Agriculture. (2 marks)
2. State four biotic factor that are useful in Agricultural production. (2 marks)
3. State four advantages of organic farming. (2 marks)
4. State four factors to consider when selecting a pasture species to establish. (2marks)
5. State four reasons why it is necessary to cultivate land before planting. (2 marks)
6. Give ionic forms in which nitrogen is taken up by plants. (1 mark)
7. Differentiate between contact and translocated herbicides. (2 marks)
8. Give four advantages of tissue culture. (2 marks)
9. Give four effects of pest in crop production. (2 marks)
10. Give four factors that determine the stage of harvesting a given crop. (2 marks)
11. State three benefits of owning a land title deed. (1 ½ marks)
12. Name three sources of Agricultural credit to farmers. (1 ½ marks)
13. Outline farming practices leading to water pollution. (2 marks)
14. State four factors considered when selecting a site for a tomato nursery bed. (2 marks)
15. Give two factors that limit proper keeping of farm records. (1 mark)
16. State four reasons for treating water before use on the farm. (2 marks)
17. Name two pests which are not feeders in crop production. (1 mark)

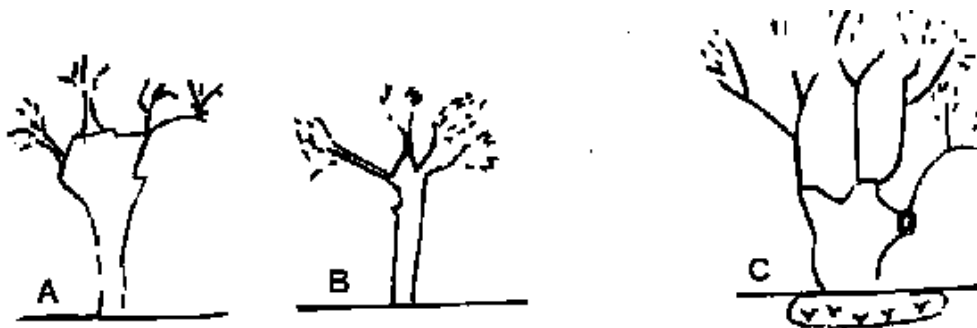
**SECTION B: (20 MARKS)**

**Answer all the questions.**

18. Below are illustrations of different planting materials. Study them carefully and answer the question below.

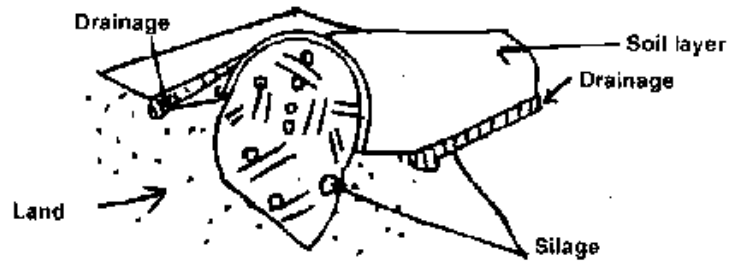


- (a) Identify the planting materials represented by diagrams. (2 marks)
- D  
E  
F  
G
- (b) Differentiate between E and f as planting materials. (2 marks)
- (c) State four factors that affect the rooting of the material represented by G. (2 marks)
19. The illustrations below are techniques of harvesting agro forestry trees. Study them carefully and then answer the questions below.

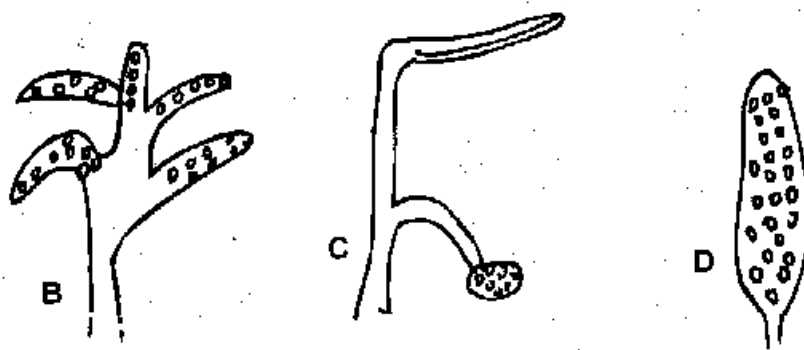


- (a) Identify the harvesting technique represented by A, B and C. (1 ½ marks)
- (b) Give an example of a tree species suitable for each technique of harvesting. (1 ½ marks)
- (c) Briefly explain how technique A and B are carried out (2 marks)

20. Observe the structure labeled L and then answer the questions that follow.



- (i) Name the structure L (1 mark)
- (ii) State the importance of the drainage channel around the structure L (1 mark)
21. Diagram B,C and D below shows principles of three sorghum varieties grown side by side.



- (i) Which one of the three varieties of sorghum is least likely to be damaged by birds? (1 mark)
- (ii) Give a reason for your answer (i) above. (1 mark)
- (iii) State four methods that are used in controlling birds in a field of sorghum. (2 marks)

**SECTION C: (40 MARKS)**

**Answer all questions in the space provided.**

22. (a) Explain the culture methods of soil and water conservation. (10 marks)
- (b) Give five advantages of overhead irrigation. (5 marks)
- (c) List five types of micro catchments. (5 marks)
23. Discuss the harvesting of the following crops.
- (a) Cotton (5 marks)
- (b) Pyrethrum (5 marks)
- (c) Sugarcane (5 marks)
- (d) Coffee (5 marks)
24. Study the information below concerning the financial position of Mr. Solomon's farm for the year ending 31<sup>st</sup> December 2006.

Items	Cost/shs.
Milk sales	8,000
Purchase of farm tools	1,000
Sale of goats	500
Construction of zero grazing unit	10,000
Closing valuation	16,000
Depreciation of machinery	800
Interest payable	750
Veterinary bills	400
Sale of cabbages	750
Wages	4,800
Sale of heifers	9,400
Opening valuation	12,000
Sale of tea	4,700
Purchase of pesticide	300.

- (a) Prepare a profit and loss account for Mr. Solomon's farm for the year ending 31<sup>st</sup> December 2006. (11 marks)
- (b) What was the percentage profit or loss made during the year . (2 marks)
- (c) How would you increase efficiency in a farming business. (7 marks)