

**SECTION A (40 Marks)**

1. State three characteristics of shifting cultivation.
2. State three reasons why Agriculture is important in Kenya.
3. a) State three benefits of a good soil structure. (1½ marks)  
b) State two causes of hardpan in a crop field. (1 mark)
4. State three reasons for primary cultivation.
5. State three characteristics of crops used for green manure.
6. State two conditions under which opportunity cost is zero.
7. State two reasons why farmers should be advised to plant their crops early.
8. Distinguish between the following terms.
  - i. Undersowing and oversowing. (1 mark)  
.....
  - ii. Coppicing and capping  
.....
  - iii. Earthing up and ridging. (1 mark)  
.....
  - iv. Thinning and gapping. (1 mark)  
.....
9. State two reasons for inoculating legume seeds before planting.
10. Give three symptoms of nitrogen deficiency in a growing maize crop.
11. State two reasons that may determine the depth of ploughing during seedbed preparation.
12. a) Give the vegetative materials that should be used in establishment of the following crops. (1½marks)
  - i. Bananas .....
  - ii. Sisal .....
  - iii. Pyrethrum .....b) Give three advantages of using seeds in propagating crops. (1½ marks)  
.....
13. State three ways in which mulching helps in soil and water conservation.
14. State three plant morphological features likely to affect selectivity and effectiveness of herbicide.
15. a) State three reasons why some farmers may prefer to use herbicides to contro  
l weeds but not other methods of weed control. (1½ marks)  
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b) Name two insect pests with biting and chewing mouth parts. (1 mark)

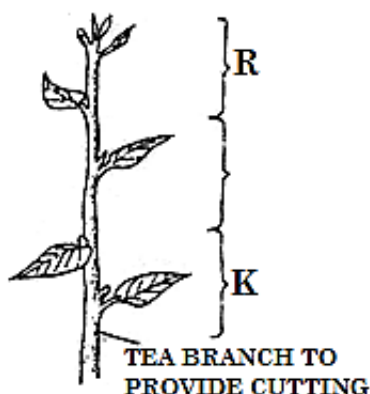
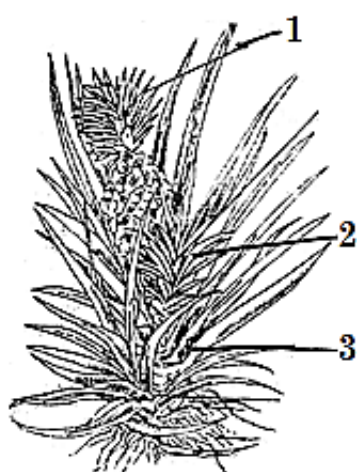
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16. State two methods of draining a water logged land to make it suitable for crop farming.

17. Name two varieties of beans grown for dry seeds.

### SECTION B (20 Marks)

18. Study the illustrations below and answer the questions that follow.



a) Name the vegetative propagation materials on illustration X1, labelled 1,2 and 3.(3 marks)

1 .....

2 .....

3 .....

b) The vegetative propagation materials labelled X2 shows the parts that should not be used for propagation.

i. State a reason why the section labelled R is not suitable for propagation.(1 mark)

.....

ii. State a reason why the section labelled K should not be used for propagation.(1 mark)

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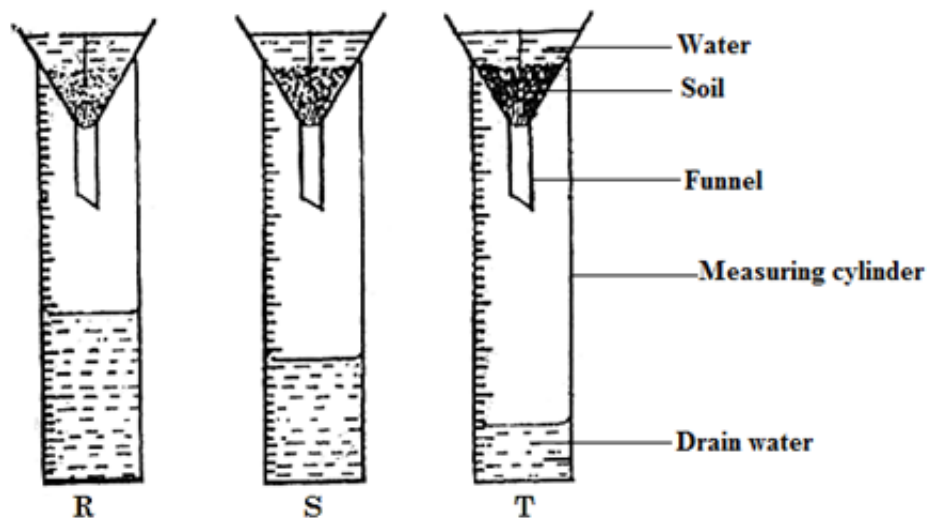
c) State four practices that should be carried out in the nursery in order to raise healthy seedlings. (2 marks)

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.....  
.....

d) Name four factors that are likely to affect rooting of cuttings. (2 marks)

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.....  
.....

19. Study the illustrations below and answer the questions that follow.



a) Identify the aim of the experiment shown by the illustrations above. (1 mark)

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b) Identify the type of soil in experiment labelled R and S and give a reasons for your answer.

i. R.....(1 mark)

Reason

.....

ii. S.....(1 mark)

Reason

.....

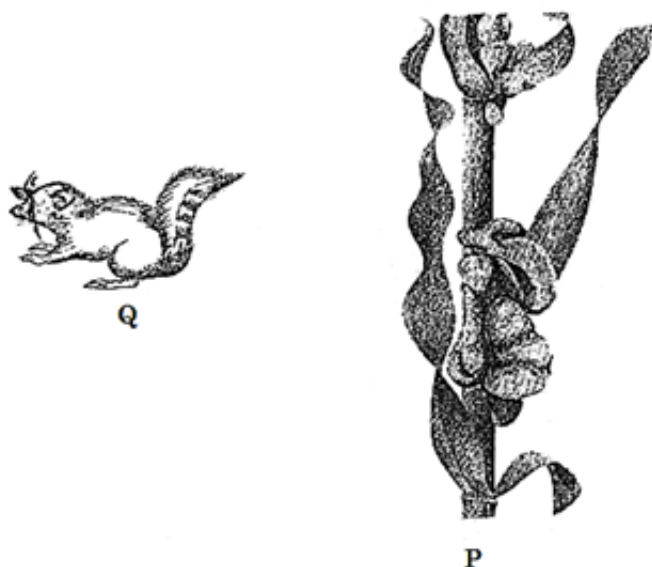
c) State two ways in which soil illustrated by figure T can be made suitable for farming.(1 mark)

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d) Which of the three soils can easily lose water when exposed to dry conditions. (1 mark)

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20. The illustrations below shows a crop pest and disease.



a) Identify

i. The group of field pest under which the pest illustrated Q belong. (1 mark)

.....

ii. State two damages likely to be caused by pest Q in the field. (1 mark)

.....

iii. Give two ways of controlling pest Q. (1 mark)

.....

b) Identify the disease in the illustration

i. Labelled P. (1 mark)

.....

ii. Give the cause of the disease illustrated by P. (1 mark)

.....

iii. State two control measures for the disease. (1 mark)

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### SECTION C (30 Marks)

21. a) What is crop rotation? (1 mark)

b) Explain why crop rotation is important in crop farming. (7 marks)

c) Describe the effects of erosion on crop farming. (6 marks)

d) Describe the benefits of weeds to a farmer. (6 marks)

22. a) Describe the production of Guatemala grass (*Trypasa cuun laxuun*)

under the following sub-heading.

i. Land preparation. (3 marks)

- ii. Planting (3 marks)
  - iii. Defoliation (2 marks)
  - iv. Utilization (1 mark)
    - b) Describe the procedure followed in harvesting pyrethrum flowers. (5 marks)
    - c) Describe carrot production under the following sub-heading. i. Land preparation. (3 marks)
  - ii. Field management practices. (3 marks)
23. a) Describe the ways through which soil can lose its fertility. (8 marks)
- b) Explain the factors considered in choosing the correct seeds for planting crops. (8 marks)
  - c) i) What do you understand by land tenancy? (1 mark)
  - ii) Describe the disadvantages of land tenancy? (4 marks)