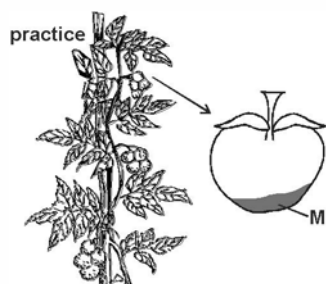


BURETI SUB-COUNTY JOINT EVALUATION TEST**443/1****AGRICULTURE****PAPER 1****SECTION A : (30 MARKS)****Answer all the questions in this section in the spaces provided.**

1. State two characteristics of plantation farming. (1 mark)
2. State three ways by which plant nutrients may be lost from the soil. (1½ marks)
3. State two feeding habits of field insect pests. (1 mark)
4. Give four ways in which land reform can be implemented in Kenya. (2 marks)
5. Give four reasons why most farmers don't use green manure in crop production. (2 marks)
6. Give two factors that would influence the time of planting beans. (1 mark)
7. Name two crop production practices carried out after planting to achieve optimum plant population. (1 mark)
8. State four practices which help in achieving minimum tillage. (2 marks)
9. Name two types of labour record. (1 mark)
10. List four ways of applying fertilizers in crop. (2 marks)
11. a) Define the term opportunity cost as used in economics. (1 mark)
- b) What is working capital in a farming situation ? (1 mark)
- c) Define the term utility of a commodity as used in agriculture economics. (1 mark)
12. Give a weed for each case which has the following effect on cattle.
 - a) Poisoning (1 mark)
 - b) Tainting milk when eaten before milking (1 mark)
13. Outline four effects of soil organisms which benefit crop growth. (2 marks)
14. Give two activities carried out during hardening off tomato seedling. (1 mark)
15. Distinguish between intensive hedgerow and border planting forms of agroforestry. (2 marks)
16. State three practices that should be carried out to maintain grass pasture. (1½ marks)
17. a) List four types of financial books farmers should keep. (2 marks)
- b) State four ways of improving labour productivity. (2 marks)

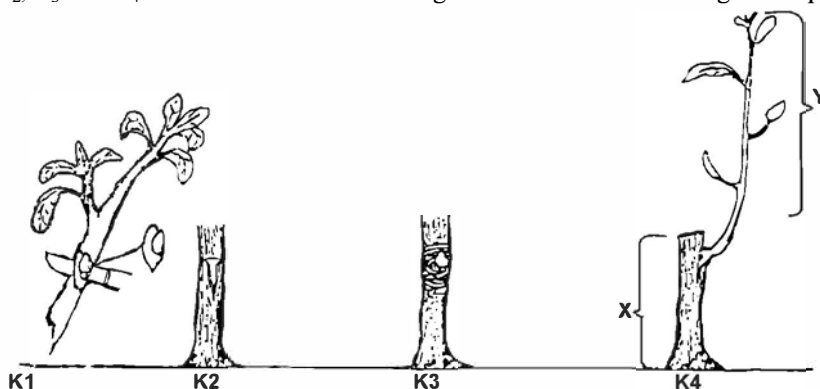
SECTION B : (30 MARKS)**Answer all the questions in this section in the spaces provided.**

18. The diagram below illustrate a field management practice in tomatoes. Study it carefully and answer the questions that follow.

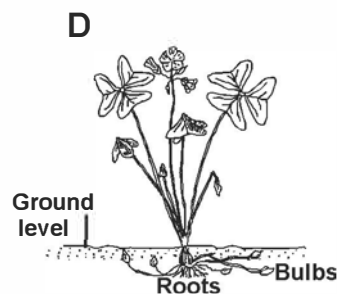
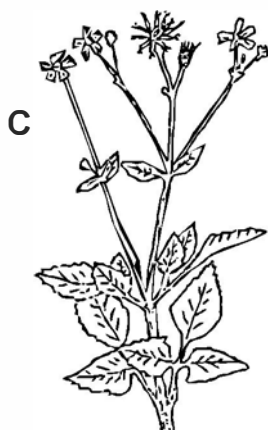


- i) Identify the field practice. (1 mark)
- ii) Identify the condition shown by letter M on the diagram. (1 mark)
- iii) Give three causes of the condition identified in (ii) above. (3 marks)
- iv) State two reasons for carrying out the practice named in (i) above. (2 marks)

19. Diagram K₁, K₂, K₃ and K₄ below illustrate various stages of a method used in vegetative propagation.



- i) Identify the method of vegetative propagation illustrated in the diagrams above. (1 mark)
 ii) Why is the tying necessary as illustrated in K₃? (2 marks)
 iii) Name the part of K₄ marked Y. (1 mark)
 iv) Name the crop plant in which the method of propagation illustrated above is recommended. (1 mark)
20. The diagram below illustrate common weeds in arable land. Study them and answer the questions that follow.



- a) Identify the weeds labelled D and C. (2 marks)
 b) Classify the weed labelled C according to plant morphology. (1 mark)
 c) Give one reason why it is difficult to control the weed labelled D. (1 mark)
21. a) Using the information on the table below answer the questions that follow.

Fertilizer input (units)	Maize yield (bags)	Marginal products (bags)
0	50	-
1	62	12
2	66	4
3	68	2
4	69	1
5	69	0

The cost of fertilizer is sh.1500 per unit and the price of maize is sh.1200 per bag.

- i) At what unit of fertilizer input should the farmer be advised to stop applying any more fertilizer to the maize? (1 mark)
 ii) Give reason for your answer in (b) above. (1 mark)
 iii) Calculate the marginal return at the point of optimum production. (1 mark)
- b) State the law of diminishing return in production function. (1 mark)

SECTION C :

Answer any two questions from this section in the spaces provided after question 24.

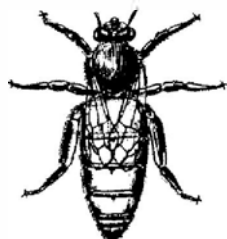
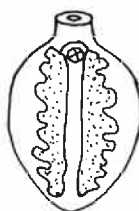
22. a) Describe five ways in which high temperature affects agricultural production in Kenya. (5 marks)
 b) Explain five ways in which biotic factors influence crop production in agriculture. (5 marks)
 c) Describe the establishment of Napier grass under the following sub-headings:
 i) Seedbed preparation (5 marks)
 ii) Planting (5 marks)
23. a) Explain the problems farmers face in marketing agricultural produce. (10 marks)
 b) Explain how various practices carried out in the field help to control crop diseases. (10 marks)
24. a) Explain eight cultural methods of soil and water conservation. (8 marks)
 b) State six disadvantages of communal land tenure system. (6 marks)
 c) Describe precautions that should be observed when harvesting cotton. (6 marks)

BURETI SUB-COUNTY JOINT EVALUATION TEST**443/2****AGRICULTURE****PAPER 2****SECTION A : (30 MARKS)**

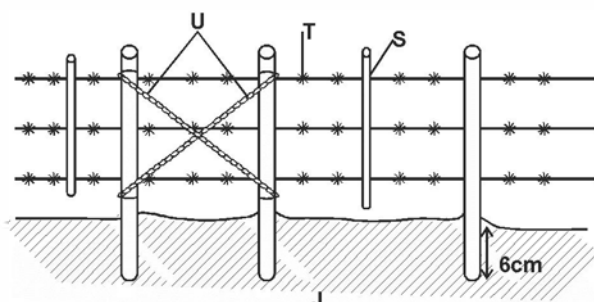
1. State four maintenance practices for a disc plough. (2 marks)
2. Name three methods that are used in selection of breeding stock in livestock production. (1½ marks)
3. Name the pig breed which has the following characteristics: long, large and white body, broad and dished face, upright ears. (1 mark)
4. Give two vices in poultry controlled by debeaking. (1 mark)
5. Give two reasons for using litter in a poultry house. (1 mark)
6. Name one livestock disease that is transmitted by each of the following parasites.
 - a) Blue ticks (½ mark)
 - b) Brown ear ticks (½ mark)
 - c) Tsetseflies (½ mark)
7. Give two ways in which proper nutrition helps to control livestock diseases. (1 mark)
8. Name two developmental stages of a liverfluke (*fasciola* spp) which occur in the fresh water snail (*limnae* sp) (1 mark)
9. Name two bloodless methods of castration in lambs. (1 mark)
10. Name two breeding systems that can increase the frequency of high milk production genes in indigenous cattle. (1 mark)
11. State four signs that indicate that a doe is about to kindle. (2 marks)
12. State four advantages of natural feeding in calf rearing. (2 marks)
13. Name the strokes in a four stroke cycle engine. (2 marks)
14. State four signs of mite attack in poultry. (2 marks)
15. State two functions of the reticulum in the digestive system of a ruminant. (1 mark)
16. Explain the following terms as used in agricultural engineering :
 - a) Top dead centre (1 mark)
 - b) Bottom dead centre (1 mark)
17. Give four uses of ox-drawn harrow. (2 marks)
18. Name the complementary tool for each of the tools named below :
 - i) Trochar (½ mark)
 - ii) Hand drill (½ mark)
19. Name three tools used in handling cattle during an agricultural exhibition. (1½ marks)
20. a) Define the term inbreeding. (1 mark)
- b) Give four disadvantages of inbreeding in livestock production. (2 marks)

SECTION B :*Answer all the questions in this section in the spaces provided.*

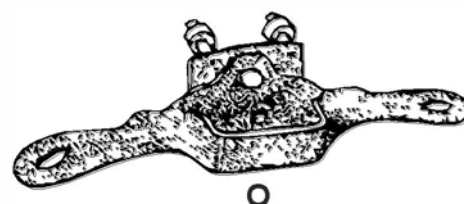
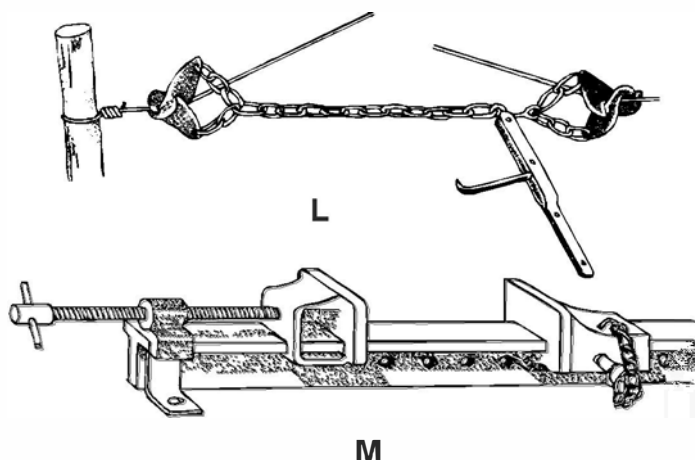
21. The diagrams below represent livestock parasites.

**Parasite E****Parasite F**

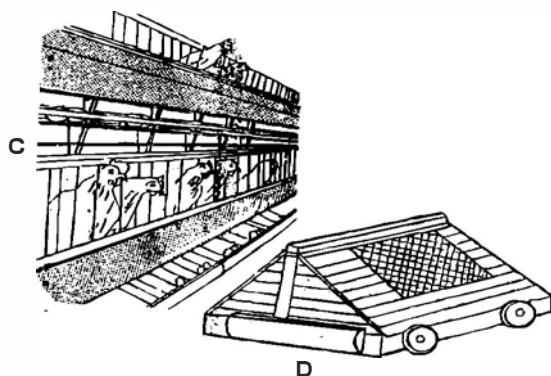
- i) Identify parasite E. (1 mark)
 - ii) State three effects that may be observed in an animal that has been attacked by parasite F. (3 marks)
 - iii) Name the intermediate host for parasite F. (1 mark)
22. a) Below is a diagram of a farm structure.



- i) Identify the structure J. (1 mark)
 ii) Identify the parts labelled S, T and U (3 marks)
 iii) State the functions of the parts labelled T and U (2 marks)
 b) L, M, N and O are diagrams of farm tools. Study them and answer the questions that follow.



- i) Identify the farm tools. (2 marks)
 ii) State the use of each tool. (2 marks)
 23. The diagram below are livestock farm structures. Study them and answer questions that follow.



- i) Identify the structures. (2 marks)
 ii) State three advantages of the structure labelled D. (3 marks)

SECTION C :

Answer any two questions from this section in the spaces provided after question 26.

24. a) Describe six structural requirements of a deep litter house. (6 marks)
 b) Describe gumboro under the following sub-headings:
 i) Animals affected (1 mark)
 ii) Causal organism (1 mark)
 iii) Incubation period (1 mark)
 iv) Symptoms of attack (7 marks)
 v) Control (2 marks)
 c) Name two nutritional disorders of cattle. (2 marks)
 25. a) Describe the five functions of a gear box in a tractor. (10 marks)
 b) Describe the long term service carried out during tractor servicing. (10 marks)
 26. a) Outline four functions of vitamins in livestock nutrition. (4 marks)
 b) Explain six control measures of tapeworms in livestock. (6 marks)
 c) Outline the factors to consider when selecting livestock for breeding. (10 marks)