

# AGRICULTURE KCSE TRIALS

*Kenya Certificate of Secondary Education (K.C.S.E.)*

For answers,prefer calling Mdm.Mariam-0746711892



# 443/1/2 - AGRICULTURE – Paper1&2

## PREDICTION 1-11.

### PREDICTION 1

#### PAPER 1

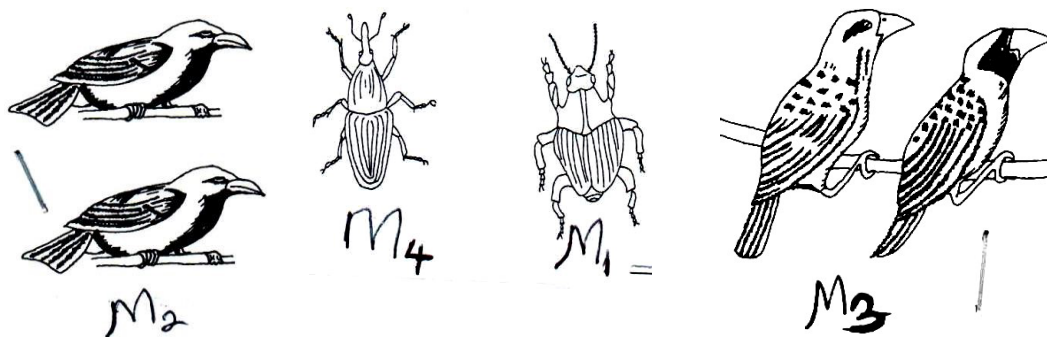
#### **SECTION A (30 MKS)** **ANSWER ALL QUESTIONS**

1. Give 4 factors that characterize large scale farming (2mks)
2. State 4 reasons for treating water on farm (2mks)
3. Give 4 examples of working capital in the production of maize (2mks)
4. Explain the meaning of the following terms
  - i) Nitrogen –fixation in the soil (1mk)
  - ii) phosphorus-fixation in loss of soil fertility (1mk)
5. Give the element whose deficiency in plants is characterized by the following
  - (a) Interveinal chlorosis of the leaves ..... (½ mark)
  - (b) Blossom end rot in tomatoes ..... (½ mark)
  - (c) Scorched edges of a leaf ..... (½ mark)
6. State two activities carried out during hardening cabbage plants in the nursery (2mks)
7. Name three methods of controlling blossom endrot in tomatoes (1 ½ mk)
8. Outline four conditions that may lead to agricultural land fragmentation and subdivision (2mks)
9. State four factors that influence soilfluction (2 marks)
10. Give four reasons for keeping health records (2 marks)
11. Name four processes involved in chemical weathering (2mks)
12. Outline four reasons why it is undesirable to carry out minimum tillage before planting (2mks)
13. State four advantages of practicing crop rotation (2mks)
14. State four factors that determine the stage at which a crop is harvested (2mks)
15. Below is a list of weeds found in the farm. Use them to answer the questions below.  
Wild oat, Wondering Jew, pigweed, Mexican Marigold, Sodom Apple, Couch Grass and Thorn Apple.
  - i) Name two narrow leaved weeds. (1 mark)
  - ii) Give two weeds that are poisonous. (1 mark)
  - iii) Identify two annual weeds from the above list (1 mark)

#### **SECTION B (20MRKS)**

**Answer all the questions in their section in the spaces provided.**

16. The diagrams below illustrate both field and storage pests



a) Identify the pests in the illustration. (1mark)

M1.....

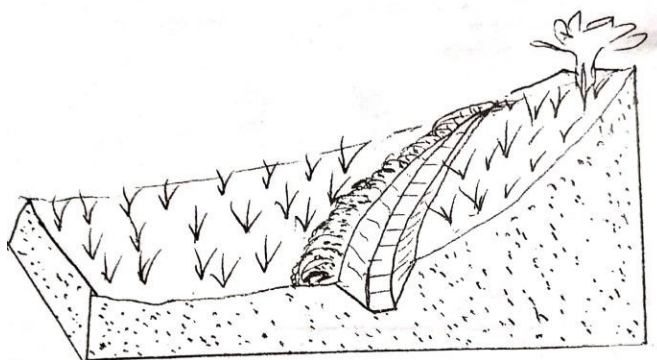
M2.....

b) State two ways by which pest labelled M<sub>2</sub> causes loss in cereal crops. (2marks)

c) State two methods which are used to control the pest labeled M<sub>2</sub>. (2marks)

Study the

17. diagram of cut off drain below and answer the questions that follow.

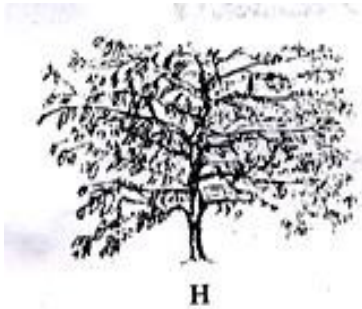


a) Outline the procedure of constructing a cutoff

4mks

b) State two ways through which the methods above helps in soil and water conservation (2mrks)

18) The diagrams below labeled H and J are illustrated of coffee plants establishing using two different pruning systems. Examine them closely and answer the questions that follow



- a) Name the pruning systems illustrated by diagrams H and J (1 mark)
- b) Give one advantages of pruning system illustrated by diagram H. Over that one illustrated by diagram J

(1 mark)

19. (a) A farmer was advised to apply 40kg/ha.  $P_2O_5$ . Calculate the amount of DSP the farmer will require for 2 ha of land. Show your working (DSP has 20%  $P_2O_5$ ) (3mks)

20. The table shows output of maize at various quantities D.A.P. application per hectare.

FIXED INPUT(LAND)	VARIABLE INPUT D.A.P IN 30 KG BAG	TOTAL PRODUCT MAIZE IN 90 KG BAG	AVERAGE PRODUCT (AP)	MARGINAL PRODUCT(MP)
1	0	2		
1	1	5		
1	2	14		
1	3	21		
1	4	26		

Fill in the table above to show average product (AP) and marginal product (MP) (4mks)

### SECTION C (40MARKS)

**Answer any TWO questions from this section in the spaces provided after question 23**

21. (a) A farmer wishes to change her enterprise from vegetable production to dairy cattle rearing. The costs she incurs in growing of vegetables is as follows:
- Weeding Sh. 200, Harvesting Sh. 300, Fertilizers Sh. 500 and Seeds Sh. 400. When she changes her enterprises to dairy cattle rearing, she incurs the following cost:
  - Cost of buying cattle Sh. 5000, Disease control, Sh. 200, Salary of milk person Sh. 2000 and Fencing Sh. 500. The revenue she got when growing vegetable is 10,000.
- In dairy production, the revenue she gets from milk sales is Shs. 15,000 and manure sales shs. 1,000.
- Draw up the partial budget and indicate if the change is worthwhile. (Show your working) (10marks)
- (b) Explain five benefits of agro-forestry in agriculture (5mks)
- (c) Outline any five problems facing agriculture in Kenya (5mks)
22. (a) Explain five roles played by a good manager (5mks)
- (b) Explain five benefits of land consolidation (10mks)

- (c) Outline five effects of late defoliation in forage crops (5mks)
23. (a) Explain five factors that may influence the spacing used during planting of crops (10mks)
- (b) Outline five precautions taken when harvesting tea (5mks)
- (c) ) Outline five characteristics of plants suitable for making green manure (5mks)

## PAPER 2

### SECTION A (30 MARKS)

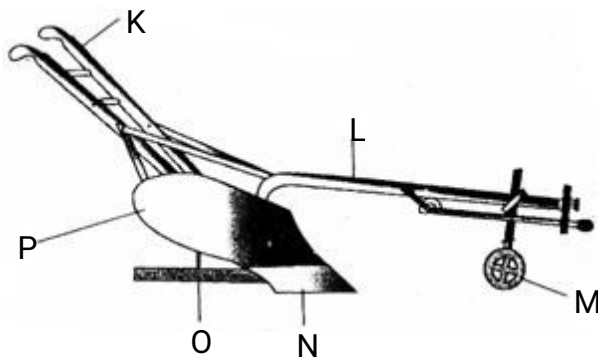
Answer all the questions in this section in the spaces provided.

1. State four light breeds in poultry (2 marks)
2. Give two effects of lice infestation in sheep production (1mark)
3. State four advantages of contemporary comparison in selection of livestock. (2 marks)
4. State two reasons for docking in sheep management (1 mark)
5. State two functions of differential in a tractor transmission system. (1 mark)
6. Give four effects of protein deficiency in livestock production. (2 marks)
7. State four predisposing factors of pneumonia in livestock production. (2 marks)
8. Give four factors influencing milk let down in dairy cattle production. (2 marks)
9. Name four instances where animal power is advantageous over other form of powers. (2 marks)
10. State four reasons for handling dairy cattle in livestock production. (2 marks)
11. Give factors considered in choice of rearing systems in poultry production. (2 marks)
12. State four factors that affect the choice of feedstuff in livestock. (2marks)
13. Give four practices carried out on fish before preservation. (2 mark)
14. State four disadvantages of live fence in livestock production. (2 marks)
15. a) Give four prophylactic measures used in controlling diseases in livestock. (2 marks)
- b) State four practices that ensure maximum harvest of fish. (2mks)
16. State two functions of caecum in poultry production. (1 mark)

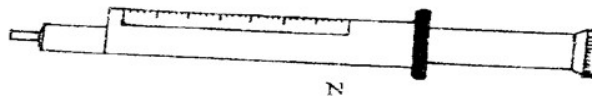
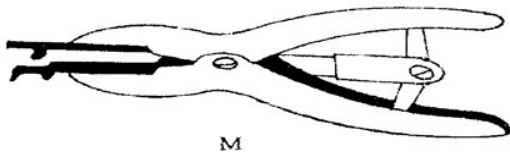
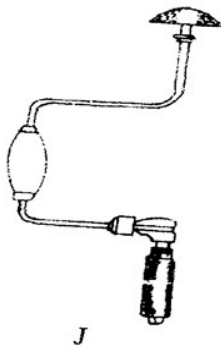
### SECTION B (20 MARKS)

Answer all the questions in this section in the spaces provided.

17. Below is an illustration of a farm implement. Study it carefully and answer the questions that follow.



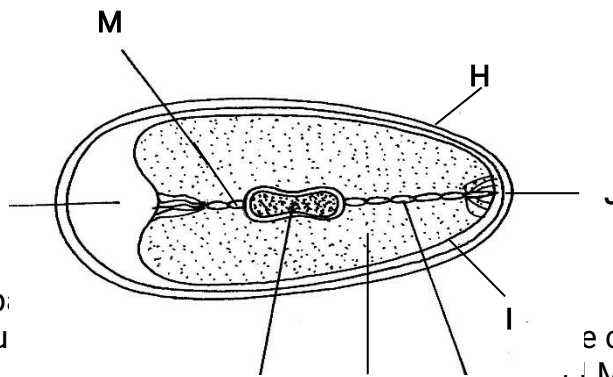
- Identify the farm implement. (1mk)
  - Name the parts labeled L, M, O and P. (2mks)
  - Give one function of the parts M, N and P. (3mks)
18. Below are illustrations of farm tools and equipment.



- Identify the tool labelled J and K  
J  
K  
1 mark)  
(1 mark)
  - State one use of tool M and N. (2mks)
  - Explain one maintenance practice carried on tool J. (1mk)
19. The diagram below illustrates a calf rearing practice.



- a) Identify the practice illustrated above. (1mk)
- b) i) Describe the procedure followed in the feeding practice named in (a) above. (3mks)
- ii) Give **two** precautions taken while using the rearing practice stated in (a) above. (1mk)
20. The diagram below is an illustration of an egg. Study it carefully and answer the questions that follow.



- a) Name the part labelled M. (2 Marks)
- b) Give two qualities that should be considered when selecting eggs for incubation. (2 Marks)
- c) What is the function of the part labelled L? (1 Mark)

### **SECTION C (40 Marks)**

**Answer any two questions from this section.**

21. a) State five reasons for feeding livestock. (5 marks)
- b) Describe the factors a farmer should consider when selecting a gilt for breeding. (8 marks)
- c) Outline seven management practices that a farmer should carry out to maintain good health in a herd of cattle. (7 marks)
- b) a) Outline routine maintenance practices that should be carried out in deep litter system. State eight practices that would ensure clean milk production. (8 marks)
- c) Compare the use of an ox-drawn mouldboard plough with that of a tractor drawn plough. (7 marks)
22. a) Give FIVE general characteristics of dairy cattle breeds. (5marks)
- b) Outline the procedure one would follow when castrating a male piglet. (5mks)
- c) Outline five causes of stress in poultry. (5 marks)

d) Describe the life cycle of two host tick (5 marks) **PREDICTION 2**

**PAPER 1**

**SECTION A (30MARKS)**

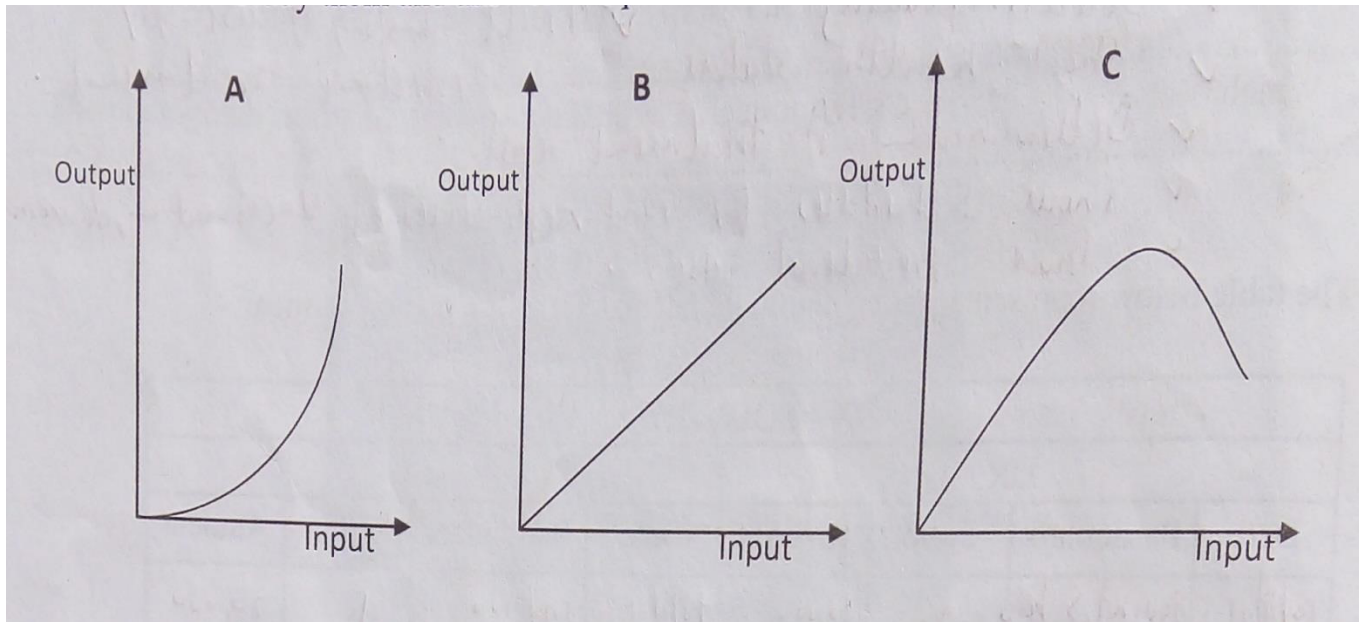
**Answer all the questions in this section in the space provided.**

1. Give four advantages of intensive farming. (2mks)
2. State four benefits of agroforestry to a maize crop. (2mks)
3. Name the plant part used for vegetative propagation of each of the following plants.
  - (i) Sisal (½ mk)
  - (ii) Pyrethrum (½ mk)
  - (iii) Sweet potatoes (½ mk)
  - (iv) Sugar cane (½ mk)
4. State four cultural ways of controlling couch grass (2mks)
5. Name three sources of underground water (1½mks)
6. State three causes of blossom end of rot in tomatoes (1½mks)
7. Give three qualities of a good green manuring plant (1½mks)
8. State four reasons for practicing minimum tillage. (2mks)
9. Name four farm records that should be kept by a poultry farmer. (2mks)
10. Give three ways in which pastures are classified (1½mks)
11. State four ways in which land reforms can be implemented in Kenya. (2mks)
12. State four factors that determine the stage at which a crop is harvested. (2mks)
13. Give four beneficial effects of weeds to a farmer. (2mks)
14. Give four advantages of practicing crop rotation. (2mks)
15. Name four methods of controlling pests. (2mks)
16. Distinguish between intensive hedgerow and border planting forms of agroforestry (2mk)

**SECTION B (20 MARKS)**

**Answer all the questions in this section in the spaces provided.**

17. The following illustrations show different production function curves in agricultural economics. Study them and answer the questions which follows;



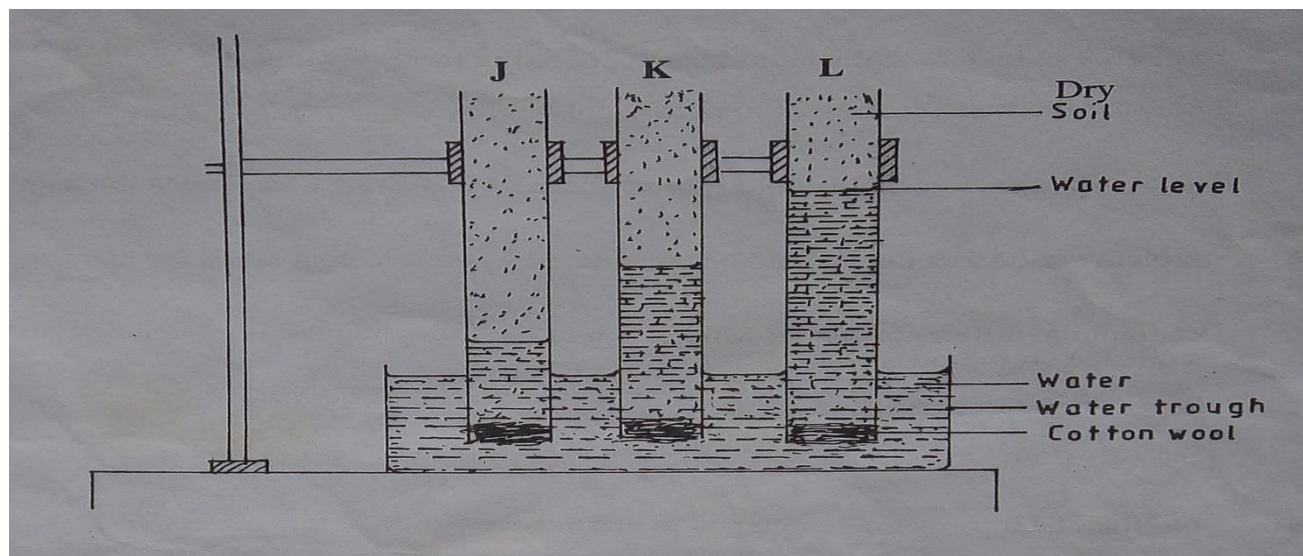
- (a) Identify the production function curves labeled A, B and C (3mks)  
 (b) What does the law derived from the production function labeled C state? (1mk)  
 (c)  
 (i) Which one of the three production functions curves is rare in Agriculture (1mk)  
 (ii) Give a reason for your answer in (i) above (1mk)

18. The table below shows the population and gross domestic products of countries A and B

Country	Gross Domestic product (million Ksh)	Population (million)
A	1800	36
B	1200	15

- (a) Calculate the per capita income for each country show your working (2mks)  
 (b) Which of the two countries is more developed economically (1mk)  
 (c) Give a reason for your answer in (b) above (1mk)  
 (d) How can agriculture increase the gross domestic product of a country (1mk)

19. The diagram below illustrate investigation on a property of soil using soil samples labeled J, K and L.



sulphur, iron and magnesium. Which of the above nutrients are;

- (a) Macro – nutrients (1mk)
- (b) Micro – nutrient (1mk)
- (c) Fertilizer elements (1mk)
- (d) Liming elements (1mk)
- (e) Primary macro nutrients (1mk)

### SECTION C

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

21.
  - (a) Explain five functions of a live fence in a farm. (5mks)
  - (b) Describe various risks and uncertainties in crop farming (10mks) (c)
  - State five functions of young farmers clubs in Kenya (5mks)
22.
  - (a) Explain five factors that should be considered in farm planning (10mks)
  - (b) Explain the different ways in which each of the following environmental factors influence crop production.
    - (i) Wind (5mks)
    - (ii) Temperature (5mks)
23.
  - (a) Outline the information contained in a purchase order. (5mks)
  - (b) Describe the harvesting of tea (7mks)
  - (c) Explain the cultural methods of controlling soil erosion (8mks)

## PAPER 2

### SECTION A (30MARKS)

Answer all the questions in this section in the space provided.

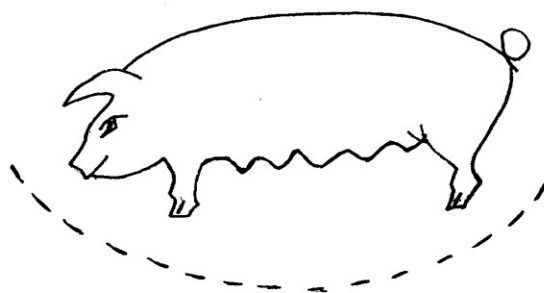
1. Give **four** signs of ill health in livestock. (2mks)
2. List **four** materials that can be used in the construction of Kenya top bar hive. (2mks)
3. State **four** management practices carries out on a cows during parturition. (2mks)

4. Name four methods of controlling Newcastle disease in chicken (2mks)
5. State the role of the following practices when rearing piglets
- (i) Iron injection. (½mks)
- (ii) Tooth clipping (½mks)
6. State **two** functions of fats and oils in animals body. (1mk)
7. State **two** functions of a queen bee in a colony (1mk)
8. Name **four** species of fresh water fish reared in Kenya. (2mks)
9. State **two** forms in which tapeworms are found in livestock (1mk)
10. Give the distinguishing colour for each of the following breeds of livestock
- (i) Chinchilla rabbit (½mks)
- (ii) Toggen burg goat (½mks)
11. State **two** functions of ventilation in an animal house (2mk)
12. Give **two** reasons for using litter in a poultry house. (2mk)
13. State **one** role of each of the following ingredients as used in preparation of artificial colostrums. (2mks) (a) Castor oil
- (b) Cod liver oil
14. State four reasons for breeding animals. (2mks)
15. State the functions of each of the following
- (a) Shovel (½mks)
- (b) Strip cup (½mks)
16. Why is it necessary to have guard rails in a farrowing pen? (1mk)
17. Distinguish between the following practices as used in livestock production.
- (a) Cropping and harvesting in fish farming (1mk)
- (b) Crutching and ringing in sheep management (1mk)
18. State three instances when a bee keeper may handle bees. (1½mks) 19. State three functions of rumen in ruminant animals (1½mks)
20. Give two signs that indicate that a cow has died of anthrax. (1mk)
21. Why is it raddling essential in sheep management. (1mk)

## SECTION B (20 MARKS)

Answer all the questions in this section in the spaces provided.

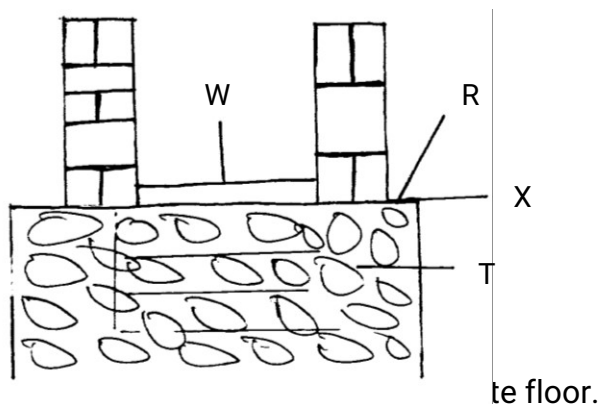
- 22.
- (a) If the maize meal contains 60% digestable crude protein (DCP) and Fish contains (64% DCP, calculate the amount of each feed stuff in Kilogrammes required to prepare 200kg of chickmash containing 18% DCP. (4mks)
- (b) Name two other feed ingredients which should be added to the chickmash to make it a balanced diet.
23. The figure below is a pig with some body paints. Study it and answer the questions that follow.



- (i) A farmer wants to select a breeding stock. State the three physical qualities the farmer should assess in order to select a pig.

(3mks)

- b) Study the illustration below of a hard flow foundation in a farm structure.



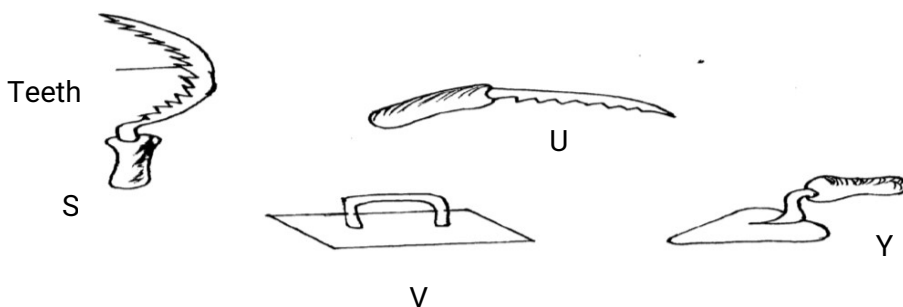
i)

ii)

(2mks)

(3mks)

24. The diagram below represents some farm tools



- (a) State the use of each tool on the farm.

(4mks)

S U V Y

- b) Explain two maintenance practices that should be carried out on the teeth of tools in the diagram.

(2mks)

### SECTION C

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

25.

- (a) Explain the factors considered when culling livestock. (5mks)
- (b) Explain five factors considered when siting a cattle dip. (5mks)
- (c) Give four conditions necessary for artificial incubation. (4mks)

- (d) Outline the factors a farmer should consider to ensure fast and efficient cultivation by oxen. (6mks)

26.

- (a) Describe East Coast Fever (ECF) under the following sub headings.
- (i) Animal attacked (1mk)
  - (ii) Causal organism (1mk)
  - (iii) Signs of infection (5mks)
  - (iv) Control measures (3mks)
- (b) Explain seven factors that affect milk composition in a dairy farming. (7mks)
- (c) State the advantages of a four stroke engine over a two stroke engine oil. (3mks)

27.

- (a) Describe the feeding practices in artificial rearing of a dairy calf. (10mks)
- (b) Describe the life cycle of a three host tick. (10mks)

### PREDICTION 3 PAPER 1

#### SECTION A (30 Marks)

*Answer ALL questions from this section in the spaces provided. (30mks)*

1. State **four** limitations of pastoral nomadism (1mk)
2. List **four** environmental conditions that may lead to low crop yields. (2mk)
3. Give **four** factors which determine the depth of ploughing (2mks)
4. List **four** features of plastic pipes a farmer should consider before buying the pipes (2mks)
5. State **four** advantages of using farmyard manure over straight fertilizers (2mks)
6. State **four** qualities of certified maize seeds (2mks)
7. State **three** disadvantages of tenancy system of farming ( $1\frac{1}{2}$ mks)
8. Give **four** natural factors that encourage soil erosion (2mks)
9. State **four** field conditions that may favour the choice of chemical weed control (2mk)
10. Give **three** damages caused by squirrels ( $1\frac{1}{2}$ mks)
11. Name the type of farm record from which each of the following information could be obtained: ( $1\frac{1}{2}$ mks)
  - (a) Common Livestock disease occurring in a given farm.
  - (b) The number of jembes a farm owns.
  - (c) The sire used to obtain the calves on the farm.

12. State **three** changes that would indicate improvement in labour efficiency in a farm ( $1\frac{1}{2}$ mks)

13. State the use of each of the following financial documents (1mk)

(a) Invoice

(b) Cash receipt

14. State **four** functions of calcium in plant growth and development (2mks)

- ~~15. Give **four** reasons for sowing annual crops early in the planting season (2mks)~~

16.a) Per capital income is one of the measures of a country's development, what does it mean? (1mk)

b) Mention any **two** ground sources of water. (1mk)

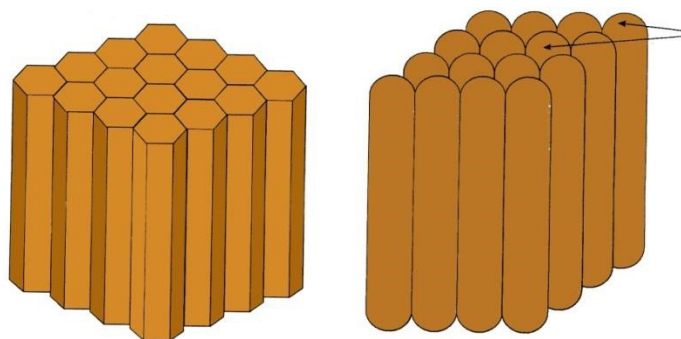
17. (a) Distinguish between monopoly and monopsony (1mk)

(b) State the law of demand (1mk)

### SECTION B (20MARKS)

*Answer ALL the questions in this section in the spaces provided.*

18. The diagram below illustrates two types of soil structures. Study them carefully and answer the questions that follow



A

B

(a) Identify the type of structure illustrated in A and B (2mks)

(b) Identify the areas where the two structures are commonly found (1mk)

(c) State **three** ways in which soil structure influence crop production (3mks)

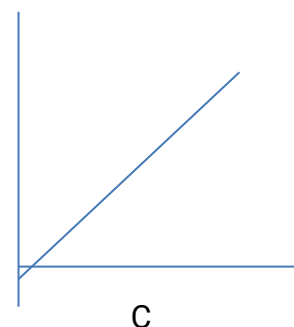
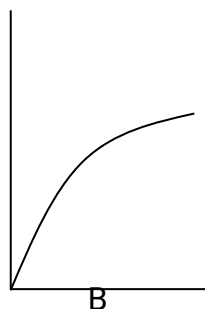
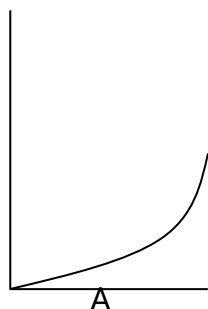
19. (a) Outline the procedure for planting maize manually once you get to the farm with all the materials. (4mks)

(a) List **two** uses of micro catchments (2mks)

20. (a) What do we mean by production function? (2mks)

(b) Below are graphical representations showing different types of production functions.

Study them and answer the questions that follow



(i) Identify the types of production function represented by diagrams A, B and C (3mks)

(c) List **three** circumstances in which illustration (B) above occurs (3mks)

## SECTION C

**Answer any TWO questions in this section**

21.(a) Describe cabbage production under the following subheadings

- i) Major varieties(2mks) ii) Field management practices (4mks) iii) Harvesting of cabbages (4mks)

(b) The following information was extracted from Mr. Njuguna's farm

Cash at hand ksh 5,000  
Bank overdraft ksh40,000  
Land value ksh 500,000  
Lorry worth ksh 3000,000  
Grains in store ksh 80,000  
Dairy cattle ksh 150,000  
Cash at bank ksh 50,000  
Debts receivable from dairy co-operative ksh 12,500  
Layers ksh 30,000  
Debts payable ksh 26,100

(i) Using the above information, prepare a Balance sheet for Njuguna's farm as at 31<sup>st</sup>Dec 2017 (9mks)

(ii) What is the net worth of the farm? (1mk)

22. (a) Describe 6 methods of draining water logged land (12mks)

(b) Explain four methods of preventing water pollution (4mks)

(c) Explain **four** factors that influences seed rate (4mks)

23. (a) Outline **five** qualities of good silage (5mks)

(b) Explain **five** roles of farm manager in production (5mks)

(c) State and explain **five** factors affecting selectivity of herbicides (10mks)

## PAPER 2

### SECTION A (30 MARKS)

**Answer all the questions in this section in the spaces provide**

1. Give the terms used to refer to the following farm animals

- a) Mature female goat ½ mk
- b) Mature castrated male cattle ½ mk
- c) A young female pig from weaning up to the first parturition. ½ mk

2. Young female bird from eight weeks to point of laying. ½ mk State four characteristics of Romney Marsh sheep breed. 2mks

3. State three uses of camels in the arid and semi-arid regions. 1 ½ mks

4. State three qualities of a creep feed that makes it suitable for piglets. 1 ½ mks

5. State three reasons for spreading a polythene paper (PVC) on the slab of a permanent farm building 1 ½ mks

6. Classify livestock diseases by cause 2mks

7. How does proper nutrition help in control of livestock diseases? 2mks

8. State four reasons why it is important to know the life cycle of a parasite in livestock production. 2mks

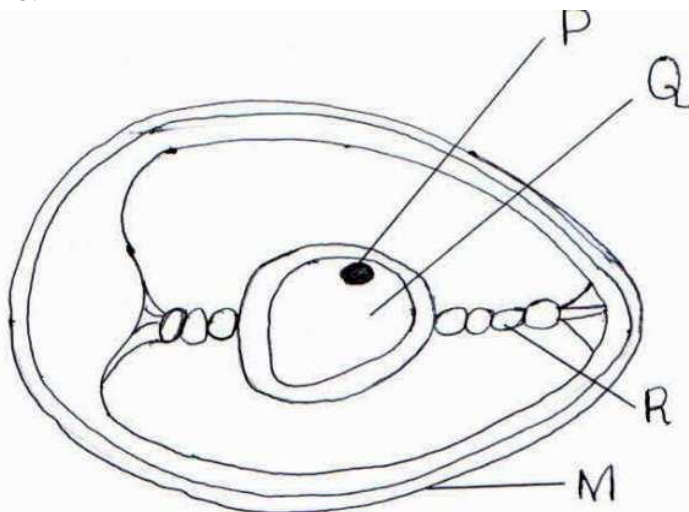
9. Define the following terms as used in livestock nutrition.

- a) Starch equivalent ½ mk
  - b) Dry matter ½ mk
  - c) Digestible crude protein ½ mk
  - d) Crude protein ½ mk
10. Kadogo secondary school has a deep litter poultry house measuring 10 m x 4m. if the space allocated per bird is  $0.28\text{m}^2$ , how many birds can the school keep. 2mks
11. What are the advantages of a spray race over a plunge dip 2mks
12. Give the most appropriate tools used in the following operations.
- a) Removing metal clippings in files ½ mk
  - b) Cutting wood along grains ½ mk
  - c) Cutting threads on pipes ½ mk
13. Give four methods of treating timber 2mks
14. State the importance of fish farming in Kenya 2mks
15. Give reasons why bees swarm. 2mks
16. Give the importance of carrying out identification practice in animals. 2mks

### **SECTION B ( 20MKS )**

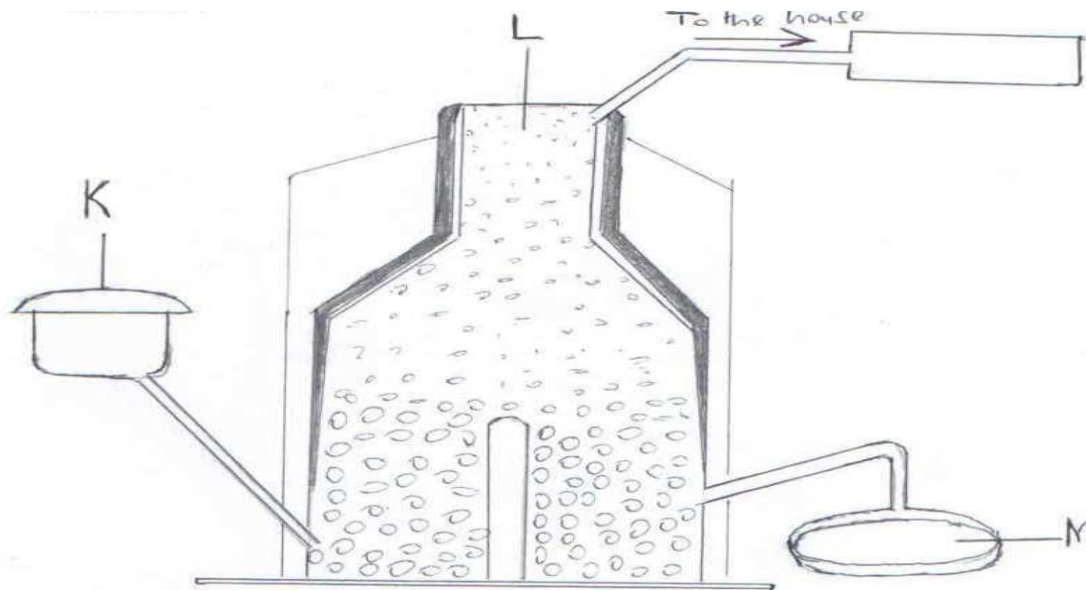
Answer all the questions in this section in the spaces provided.

17. The diagram below shows the internal structure of an egg. Use it to answer the questions that follows:



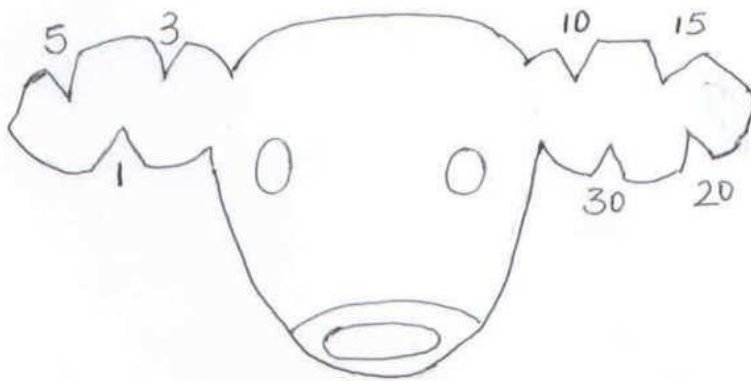
- a) Name the parts marked P, Q and R 3mks  
b) Give two defects that may be found on the part marked M that can make the egg unsuitable for incubation. 2mks

18. Study the diagram of a biogas digester plant Shown below and answer the questions that follow.

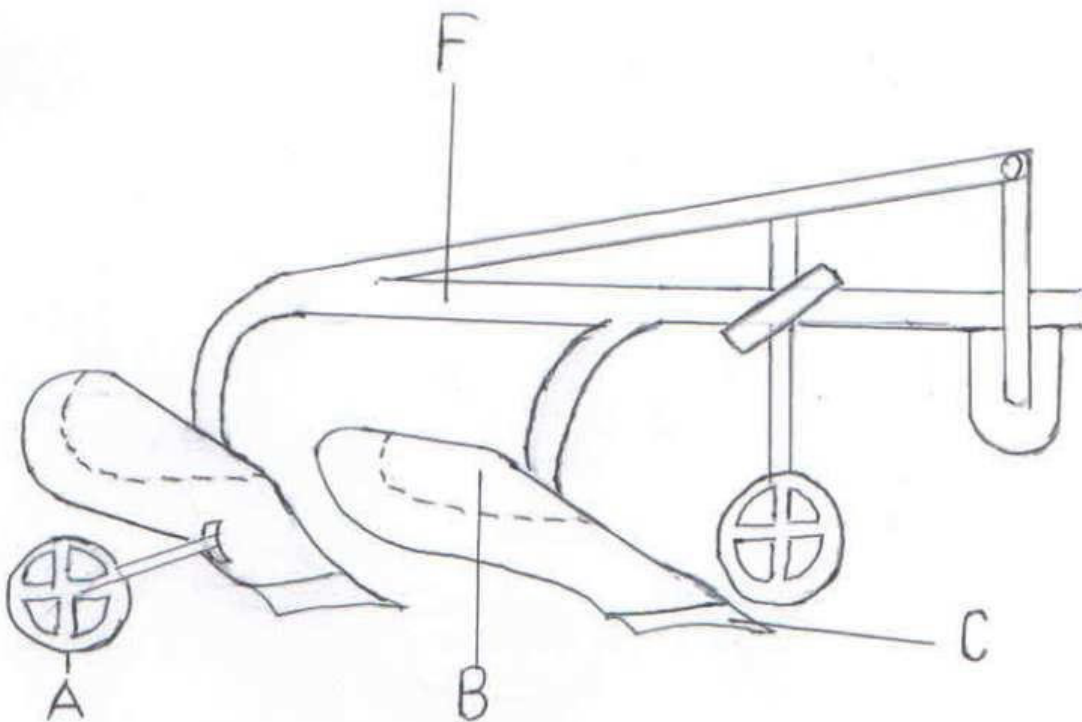


- a) Name the major component of biogas that is trapped in part L 1mk  
b) Give the name and use of the material deposited in the part labeled M 2mks  
c) What is the component of K in the biogas digester? 1mk  
d) Outline two disadvantages of biogas as a source of farm power 1mk

19. Study the diagram below and then answer the questions that follows



- a) Identify the method of identification shown above 1mk  
 b) Give the identification number of the animal shown above. 1mk  
 c) Name three other methods used in identifying animals 3mks
20. The diagram below shows a farm implement. Study it carefully and then answer the questions that follows:



- a) Identify the implement 1mk  
 b) Name the parts labeled A and C 2mks  
 c) State the functions of the parts labeled B and F 2mks
- SECTION C (40 MARKS)**

Answer any **two** questions from this section in the spaces provided.

- 21.
- a) Describe the life cycle of round worms. ( AscarisSPP) 10mks
  - b) State and explain five factors that influence the power output of draught animals. 10mks
- 22.
- a) Describe the construction of a rabbit hutch under the following subheadings:
    - i. Siting the hutch 3mks
    - ii. Selection of construction materials. 4mks
    - iii. Requirements of a rabbit hutch 3mks
23. Describe the maintenance practices carried out on a tractor before it is put to daily use. 10mks
- a) State the advantages of four stroke cycle engines. 5mks
  - b) State the causes of stress in poultry. 8mks
  - c) Explain the control measures of cannibalism in poultry. 7mks

#### PREDICTION 4 PAPER 1

##### SECTION A (30MKS)

*Answer all questions in this section on spaces provided.*

1. Name two field management that are carried out to obtain optimum plant population in a crop field 1mk
2. Give two factors which characterize small scale farming (1mk)
3. Give one examples of each of the following categories of water pipes
  - a) Metal pipes (½mk)
  - b) Horse pipes (½mk)
4. Name three forms of horticulture practiced in Kenya (1½mk)
5. State four disadvantages of growing one type of crop on piece of land continuously(2mks)
6. Outline four qualities of a mother plant from which vegetative propagation material should be obtained 2mks
7. State two ways in which crop rotation controls weeds (1mk)
8. Give two reasons for imposing quarantine on imported planting materials (1mk)
9. State two mechanical methods of separating soil particles according to sizes during soil analysis (1mk)
10. Name four settlement schemes that the Kenyan government started as a result of the success of the million Acre scheme (2mks)
11. State three practices which encourage soil erosion (1½mks)
12. State four characteristics of a good vegetable seedling (2mks)
13. List four pose-harvest practices that are carried out in maize production (2mks)
14. List four environmental factors that affect crop production in Kenya (2mks)
15. Give four reasons for seed selection in crop production (2mks)
16. Give two benefits of top-dressing in management of grass pasture (1mk)
17. State four disadvantages of communal land tenure system (2mks)
18. State any two benefits a farmer would get by having correct plant population in the production of annual crops
19. Define the term opportunity cost as used in economic (1mk)

20. State four pieces of information contained on a land title deed.

(2mks)

**SECTION B (20MKS)**

***Answer all questions in this section***

21. The table below shows PH value of different soil samples. Study it and answer the questions that follow.

Soil sample	PH value
S <sub>1</sub>	3
S <sub>2</sub>	4
S <sub>3</sub>	5
S <sub>4</sub>	6
S <sub>5</sub>	7
S <sub>6</sub>	8
S <sub>7</sub>	9
S <sub>8</sub>	10

a) Which soil sample has the highest acidity

(1mk)

b) Which soil sample has the lowest alkalinity

(1mk)

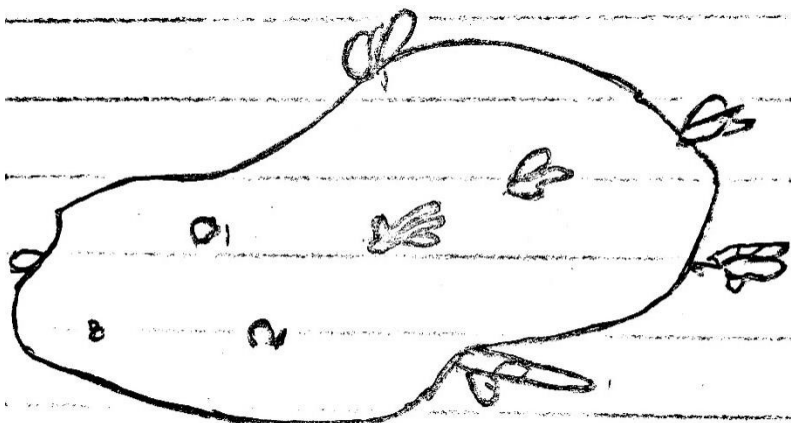
c) State two ways in which the PHvalue of sample 3 can be raised

(2mks)

d) Which of the above soil sample is suitable for growing maize

(1mk)

22. The diagram below illustrates a seed potato prepared for planting. Study it carefully and answer the questions that follow.



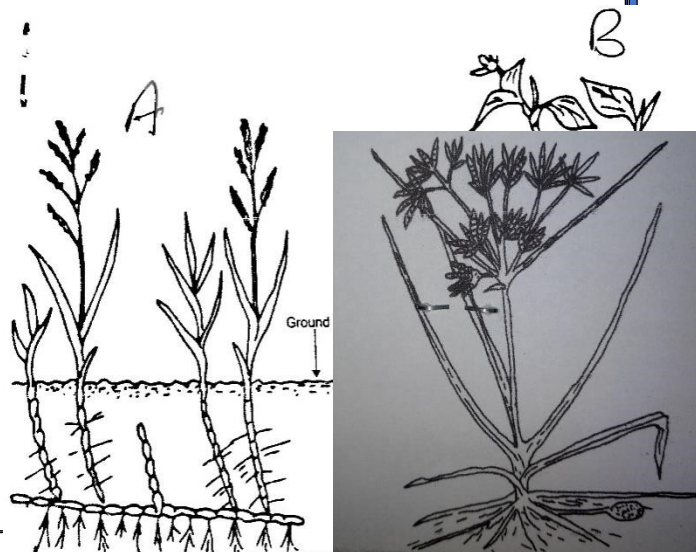
a) Name the practice used in preparing the seed potato above for planting

(1mk)

b) Describe the procedure followed in preparing seed potatoes for planting. (8mks)

23. Below are diagrams of common weeds found in a crop field, study them carefully and answer questions that follow.

C

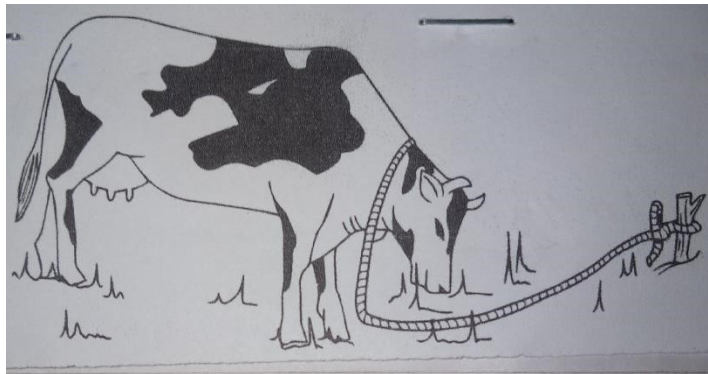


Weed A ..... Weed B .....

Weed C .....

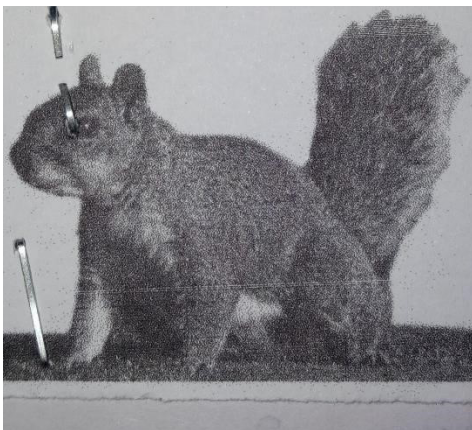
- b) State one reason why weed A is difficult to control (1mk)  
c) State one economic use of weed B (1mk)

24. Below is a method used in pasture management. Study it carefully and answer questions that follow.



- a) Identify the type of grazing shown above (1mk)  
b) State two limiting of the practice above (2mks)

25. Below is a diagram of common pest found in the field. Study it carefully and answer questions that follows



- a) Identify the pest (1mk)  
b) State the stage at which the pest attack maize (1mk)  
c) State one effect of the pest on crop production (1mk)

### **SECTION C (40MKS)**

***Answer any two questions only from this section***

26. a) Explain five ways in which biotic factors influence crop production in Agriculture (10mks)  
b) Explain four ways in which Government policy improves agricultural production (4mks)  
c) Describes the properties of Nitrogenous fertilizer (6mks)
27. a) Describe the effects of pests on Beans in the field (4mks)  
b) Describe the production of cabbage under the following seed headings.  
i. Seed bed preparation (3mks)  
ii. Transplanting of seedlings (4mks)  
c) Describe various nursery management practices carried out on cabbage seeding in the nursery

5mks

- d) Describe how water is treated to remove solid impurities (4mks)
28. a) Describe five ways in which a grass cover help to conserve soil (5mks)
- b) Describe maize production under following sub-headings.
- i. Land preparation (3mks)
  - ii. Planting (6mks)
  - iii. Field management practices (6mks)

## PAPER 2

### SECTION A (30MKS)

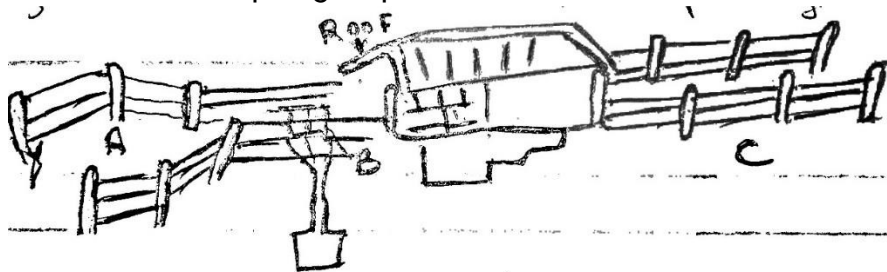
*Answer all questions in this section on spaces provided.*

1. State four non-chemical method used to control ticks (2mks)
2. Highlight two management practices carried out on a broody hen (2mks)
3. Give four characteristics of a good fish pond (2mks)
4. Mention four physical characteristics of exotic beef cattle breeds (2mks)
5. Give four features of calf pen that help to control calf diseases (2mks)
6. a) What is dry cow therapy (1mk)
- b) At what stage of gestation is dry cow therapy practiced (1mk)
7. Name four farm structures used for handling livestock (2mks)
8. Give four symptoms of respiratory disorder in a sick cow (2mks)
9. Mention two characteristics of abdomen of a poor layers (2mks)
10. Distinguish between mothering ability and prolificacy (2mks)
11. List two factors that can lead to conception failure after female cow has been served (2mks)
12. Give four factors that may lead to a farmer culling dairy cattle (2mks)
13. State four reasons for doing Agriculture as a discipline (2mks)
14. Name four tools that are used when laying concrete blocks during construction of a wall (2mks)
15. State four features on the animal which may pre-dispose it to livestock diseases (2mks)

### SECTION B (20MKS)

*Answer all the questions from this section.*

16. Diagram below show a plunge dip.



- a) Using a arrow on the diagram show the movement of cattle (½mk)
- b) State one use of parts A, B and C (3mks)

X .....

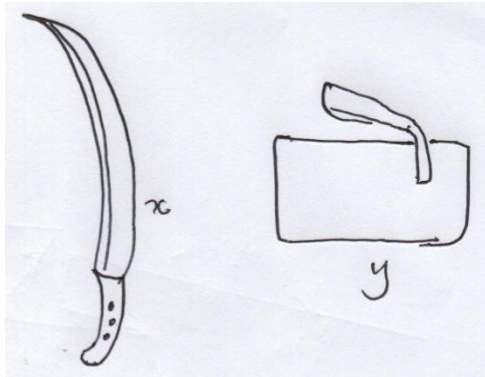
Y .....

- ii) State the use of tools x and y (2mks)  
 iii) Explain two maintenance practices carried on tool X (2mks)  
 b) Name the tools used in conjunction of following tools i. (2mks)

Troca

- ii. Hand drill  
 iii. Leading stick  
 iv. Mallet

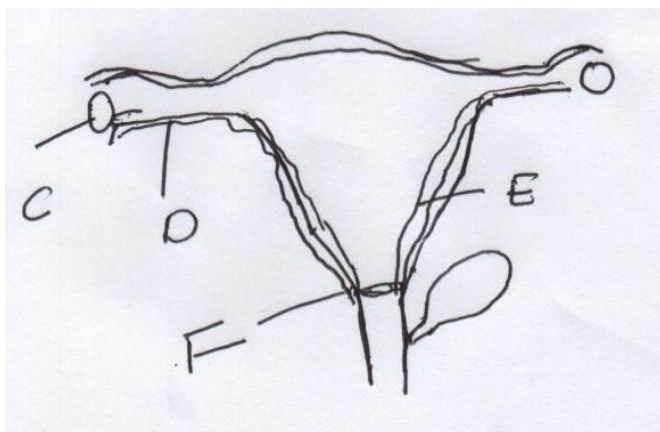
18. a) Diagram below show reproductive system of a female cow



c) State two precautions a farmer should take on dip to ensure effective dipping (2mks)

- d) State two uses of the roof of the dip (2mks)  
 b) Apart from use of acaricides explain other methods used to control ticks (3mks).

17. a) i) Identify the tools below (1mk)



i. Name the part marked D F

ii. State the function of parts marked C E (1mk)

b) At what stage should a gilt be mated? (½mk)

### **SECTION C (40MKS)**

**Answer ONLY TWO questions on answer booklets provided.**

19. a) Explain features of ideal calf pen (6mks)  
 b) Outline various feeding practices a farmer undertake on calves up to weaning (8mks)  
 c) Describe uses of water in the animals body (6mks)  
 20. a) Describe mastitis disease under the following sub-headings  
 i. Causal organism (1mk) ii.

Disease pre-disposing factors (4mks)

iii. Symptoms (3mks) iv.

Control measures (6mks) b)

Describe factors to consider when culling a female (Cow) breeding stock (6mks)

21. a) Describe the artificial rearing of layers chick from one day up to the end of brooding (10mks)

b) Name three types of fences (3mks)

c) Explain the procedure of establishing wire fence (7mks)

### PREDICTION 5

### PAPER 1 SECTION: A 30 MARKS

Answer all the questions from this section.

1. Give TWO forms of collective land tenure system in Kenya. (1 mark)

2. State TWO causes of hard pans in a crop field. (1 mark)

3. Define the following the term economic injury level as used in pest management.

4. Name the disease which cause a mass of dark spores on flowering parts of maize.

5. Give the reasons the following practices are carried out in (1 mark)

pastures. a) Top dressing

b) Topping.

6. Give TWO fresh market varieties of carrots. (1 mark)

7. Distinguish between seed dressing seed inoculation. (1 mark)

8. a) What is biological weed control? (1 mark)

b) TWO advantages of biological weed control. (1 mark)

9. State FOUR uses of gross margin analysis in agricultural production. (2 marks)

10. State FOUR uses of a green house in a farm. (2 marks)

11. Name a crop that will require the following training. (1 mark)

a) Propping

b) Trellising

12. State FOUR soil factors that would influence the crop grown by the farmer. (2 marks)

13. a) What is elasticity of demand? (1 mark)

b) State FOUR reasons why an agricultural commodity may have its price elastic. (2 marks)

14. State TWO factors that favour surface irrigation. (1 mark)

15. a. Give FOUR characteristics of a crop that a farmer would use to prepare green manure.

b. Mention any TWO crops that can be used as a green manure crop. (1 mark)

16. State TWO problems experienced by failing to carry out cutting back in pyrethrum. (1 mark) 17. Give THREE conditions which make it necessary to use a nursery in a crop establishment.

18. Differentiate between a cash book and a ledger. (1 mark)

19. State TWO biological methods of weed control. (1 mark)

20. State FOUR effects of late defoliation. (2 marks)

21. How does foreign exchange earned from agriculture contribute to economic development? (1 mark)

### SECTION B: 20 MARKS

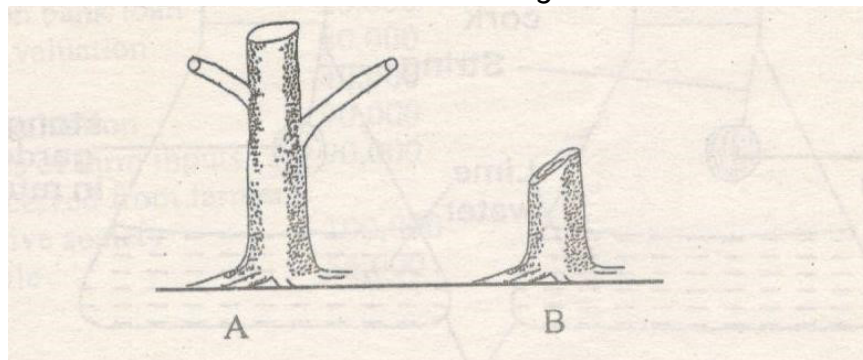
Answer all the questions from this section.

22. The diagram below illustrates methods of raising seedlings. Study it and answer the questions that

follow.



- a) State THREE advantages of using crop propagation method shown in diagram B and A.
  - b) List TWO materials used to prepare the rooting medium in diagram B above. (2 marks)
  - c) Which practice is carried out two weeks before transplanting seedlings from diagram A?
23. The diagram below illustrate methods of tree harvesting.



- a) Identify the methods of trees harvesting illustrated above. (1 mark) A-  
B-
- b) Name THREE products the farmer can get after carrying out the practice illustrated above. (1½ marks)

24. The diagram below shows a weed. Study it then answer questions below it.

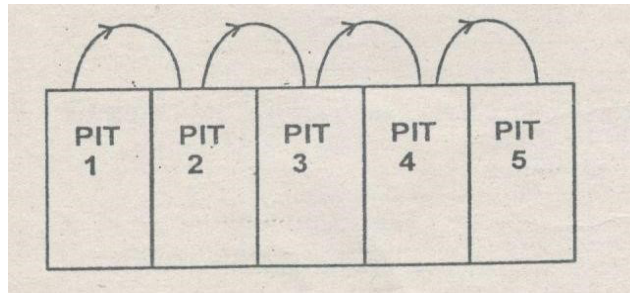


- a) Identify the weed. (1 mark)
- b) Why is it difficult to control the above weed? (1 mark)
- c) State TWO effect of weed named in (a) above in management and utilization of pasture. (2 marks)

d) Name one parasitic weed that affects cereals.

(1 mark)

25. The method below shows a method used in preparation of compost manure. Study it and answer the questions that follow.



a) Name the illustrated method.

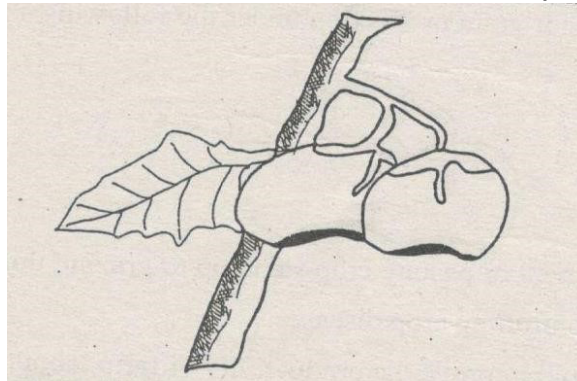
(1 mark)

b) Give TWO factors to consider when siting the area to establish the method. (2 marks)

c) What do the arrows represent?

(1 mark)

26. a) Identify the condition illustrated below as observed in the field production of tomatoes. (1 mark)



b) State TWO conditions that predisposes a tomato plant to the condition stated in (a) above. (1 mark)

c) Suggest TWO ways of controlling bacterial wilt in tomatoes.

(1 mark)

## SECTION C- 40 MARKS

Answer any TWO questions in this section.

27. a) Explain THREE soil properties that are influenced by soil texture. (6 marks)

b. Discuss the importance of timely weed control.

(5 marks)

c. Explain water management in a flooded rice field.

(9 marks)

28. a) Explain SIX roles of a farm manager in agricultural production.

(6 marks)

b) Explain that factors that are considered when selecting a farm enterprise. (14

marks) 29. a) Discuss establishment and management of grass pasture crop stand up to grazing. (12 marks)

b. Mention and discuss FOUR agencies involved in marketing agricultural produce. (8 marks)

## PAPER 2

## SECTION A 30: MARKS

Answer all the questions in this section.

1. State the complementary tool equipment.

(1 mark)

Canula-

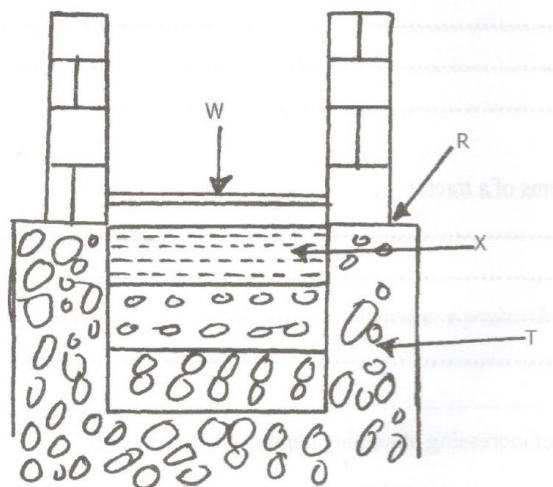
Cold chisel

2. State FOUR advantages of using corrugated iron sheets for roofing instead of asbestos.
3. State FOUR practices through a farmer would ensure that no engine knock out occurs in a tractor.  
(2 marks)
4. Name the vectors for each of the following livestock diseases. (1½ marks)
  - a. East Coast Fever
  - b. Trypanosomiasis
  - c. Nairobi sheep disease
5. List TWO implements that can be connected to the power take off shaft (PTO). (1 mark)
6. State the function of the following parts found in a tractor. d) (2 marks)
  - Carburetor
  - e) Spark plug
7. a. Name two livestock diseases controlled by the same vaccine. (1 mark)  
b. Mention the name of the vaccine. (½ mark)
8. State the roles of the following hormones in the milk production. (2 marks)
9. Give FOUR reason for dim light in a deep litter house in poultry production. (2 marks)
10. Give THREE problems associated with lambing. (1 mark)
11. Give TWO feeding characteristics of goats which make them less vulnerable to internal parasites. (1mk)
12. a. Name the camel breed that can be used better as a quick means of transport in Kenya. (½ mark)  
b. Give a reason for your answer in (a) above. (½ mark)
13. Give TWO qualities of creep feed. (1 mark)
14. State FOUR advantages of using stones as construction materials over timber. (2 marks)
15. Give FOUR situations that necessitate the handling of livestock. (2 marks)
16. Name TWO diseases that affect female animals only. (1 mark)
17. State FOUR reasons why daily maintenance of a tractor is necessary. (2 marks)
18. State the functions of the following parts of a combined harvester. (2 marks)
  - a. Reel
  - b. Auger
  - c. Front beater
  - d. Threshing drum
19. Name FOUR nutritional diseases. (2 marks)

### **SECTION B 20 MARKS**

**Answer all the questions in this section in the spaces provided.**

20. Study the illustration below of a hard floor foundation of a farm structure.



a. Name the parts labelled.

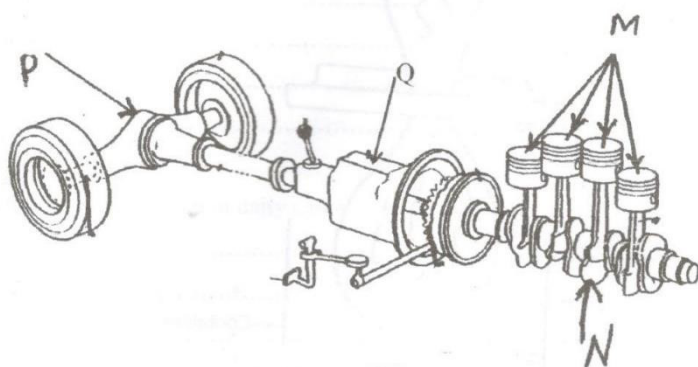
(2 marks)

R T X W

b. State TWO advantages of concrete floors.

(2 marks)

21. Study the illustration of power transmission system of a tractor and answer the questions that follow.



a. Identify and name the parts labelled.

M N

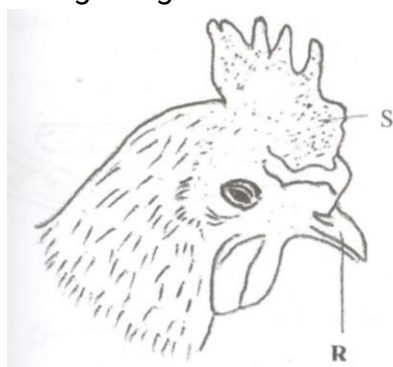
(1½ marks)

P

b) State THREE functions of part labelled Q

(1½ marks)

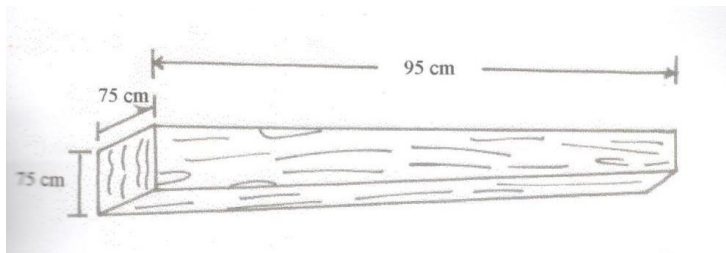
22. Use the diagram given below to answer the questions that follow. (1 mark)



c) i. Name the routine practice carried out on the part labeled R. (1 mark)

ii. Give TWO reasons for carrying out the practice named in (a) (i) above. (2 marks)

- b.i. Name one disease that affect the part labelled S. (1 mark)  
 ii. State TWO control measure of the disease named in ( b i) above. (2 marks)  
 23. Assume you have a piece of sawn timber with dimensions as shown below.

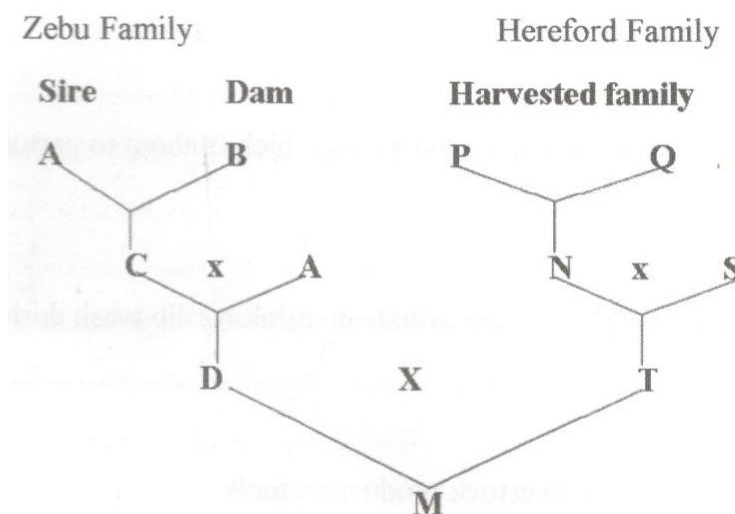


Describe how a round handle 85cm long would be prepared from the piece of timber and fixed to an axe as shown below. For each operation name the correct hand tool(s) that would be used.

(4 marks)



24. The illustration below show different livestock families. Use it to answer the question that follow.



- a) Identify the breeding system between.  
 i. C and A (½ mark)  
 D and T (½ mark)  
 b. State the advantage of the breeding system identified in a(ii) above. (1 mark)

- c. Why is the breeding system identified in a (i) not recommended in dairy cattle?  
(1 mark)

**SECTION C 40 MARKS**

**Answer any TWO questions in this section.**

25. Describe the management of a dairy heifer calf from birth until it is mature for service. (20 marks) 26. Describe fish management under the following sub headings

- a. Procedure for establishing a pond. (10 marks)
- b. Stocking the pond. (3 marks)
- c. Management practices that would ensure maximum harvest of fish from the pond. (5 marks)
- d. Methods of preserving fish. (2 marks)

27. a. Describe the procedure followed when hand spraying cattle to ensure effective use of acaricide.

(10 marks)

b. Explain the uses of various hand tools in the construction of a bee hive. (10 marks)

**PREDICTION 6 PAPER 1**

**SECTION A (30MKS)**

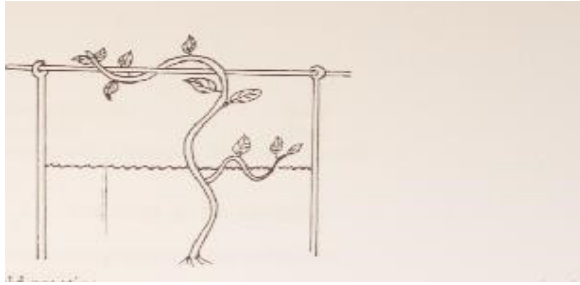
***Answer all the questions***

- 1 Name three diseases that attack cabbages. (1 1/2 mks)
- 2 List four factors that will lower demand of a commodity. (2mks)
- 3 Give four reasons for seed selection in crop production. (2mks)
- 4 Give four reasons why a well drained soil is suitable for millet production. (2mks)
- 5 State three conditions that would necessitate irrigation. (1 1/2 mks)
- 6 Highlight four harmful effects of weeds (2mks)
- 7 Name a method of breaking seed dormancy in (2mks)
  - a) Calliandra
  - b) Rice.
- 8. Give four benefits of processing certificate of land ownership (title deed). (2mks)
- 9. How can labor productivity be improved in the farm? (2mks)
- 10. State four activities that a farmer should carry out on a storage facility before storing farm produce. (2mks)
- 11. Explain the following terms as used in fertilizer chemistry. (2mks) a. Fertilizer grade  
b. Fertilizer ratio
- 12. Give four climatic factors that influence crop production and distribution. (2mks)
- 13. Give two ways in which land consolidation helps to improve farm management. (3mks)
- 14. State four uses of organic mulch in crop production. (2mks)
- 15. Define the following terms as used in crop production. (3mks)
  - a) Staking
  - b) Hardening off
  - c) Organic farming

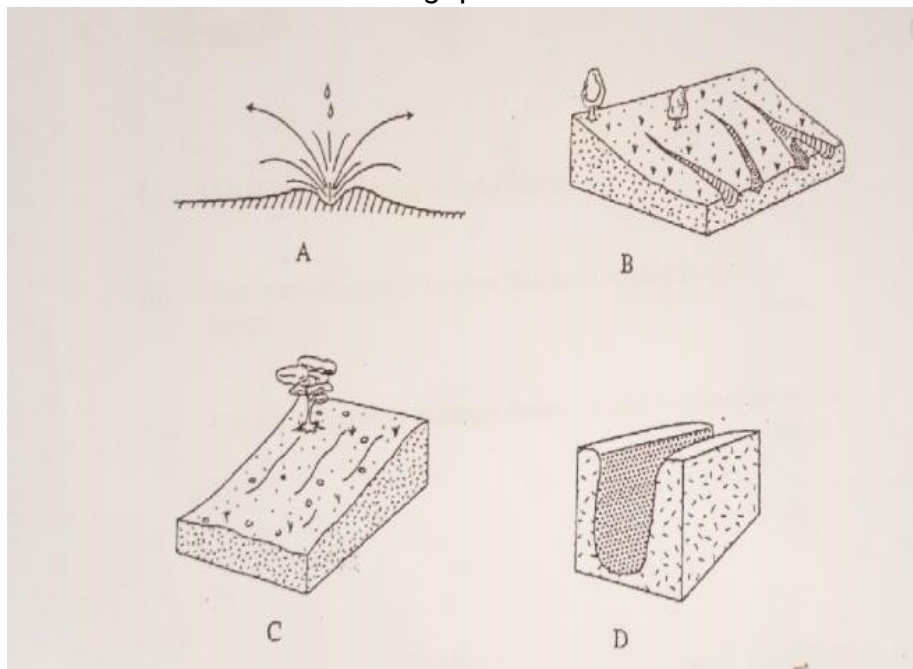
**SECTION B (20 MKS)**

***Answer all questions***

16. The diagram below illustrates a field management practice. Study it carefully and answer the questions that follow.



- a) Identify the field practice (1mk) ii) Name one type of crop trained using the above method. (1mks) iii) Give two reasons for carrying out the practice. (2mks)
17. The illustration below indicates types of soil erosion that takes place on cultivated farm land. Study them and then answer the following questions.



- (a) Identify the type of erosion represented by each of the illustrations A,B,C and D (2mks)
- (b) Name two factors that may reduce the impact of the type of erosion represented by A (2mks)

18. Study the diagram of a weed below and answer the questions that follow



- i. Identify the weed (1mk)
- ii. Classify the weed by its lifecycle (1mk)
- iii. Give two reasons why the weed is difficult to control (2mks)
- iv. List three disadvantages of using herbicides to control weed (3mks)

19. Prepare a profit and loss account for Anestar Victory farm for year ended 31<sup>st</sup> Dec 2018 from the information given below (6mks)

- ✓ Wages 6,000
- ✓ Bought animal feeds 9000
- ✓ Sold a heifer 8500
- ✓ Bought a fungicide 4000
- ✓ Sold cabbages 5900
- ✓ Sold bullocks 7000
- ✓ Bought computer 9000
- ✓ Closing valuation 9600
- ✓ Open valuation 3000

### **SECTION C (40 MARKS)**

***Answer any two questions from this section***

20. (a) Describe the process of transplanting a cabbage seedling. (5mks)

(b) State and explain five factors that influence supply of cabbages in a market (10mks)

(c) Describe ways in which farmers overcome risks and uncertainties in farming (5mks)

21. (a) State and explain how soil loses fertility (12mks)

(b) Outline four problems associated with use of manure in agricultural production (4mks)

(c) Give four characteristics of plants suitable for green manure (4mks)

22 a) Explain **six** advantages of mulching in crop production. (6 marks)

b) Explain **six** factors that should be considered when setting a nursery bed. (6 marks)

c) Describe various biotic factors influencing agricultural production. (8 marks)

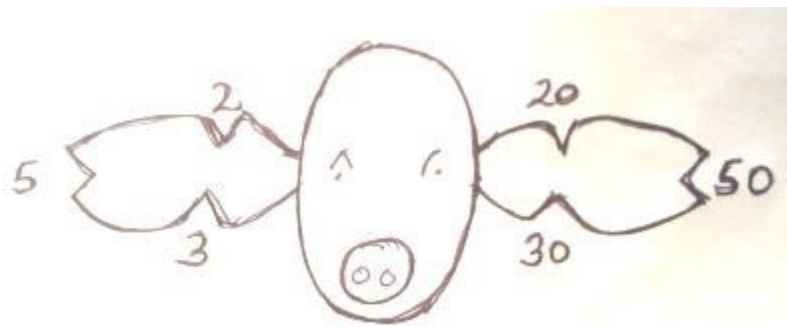
## PAPER 2

### SECTION A : 30 MARKS

1. Name three types of specialized feeding carried out in livestock management (1½ mks)
2. Name two methods used in ration formulation (1mk)
3. Name the breed of sheep adapted to wet and marshy conditions of the Kenyan highlands
4. Give two reasons for throwing grains to poultry on the litter in a deep litter poultry house
5. What are the terms used to describe the young ones of the following livestock (2mk) i. Rabbits  
ii. Fish  
iii. Goat  
iv. Donkey
6. Name the causal organisms of the following diseases in livestock (2mk) i. Anthrax  
ii. Rift Valley fever  
iii. Anaplasmosis  
iv. Milk fever
7. State four management practices carried out in sheep during preparation for tugging (2mks)
8. Name three plumbing tools in a farm (1½mks)
9. Name two exotic breeds of dairy goats (1mk)
10. Name four advantages of natural methods of rearing calves (2mks)
11. Give four disadvantages of using thatch in construction of farm buildings (2mks)
12. State four factors that determine digestibility of a feed (2mks)
13. Give any two measures that should be taken to control tapeworms in livestock (1mk)
14. Give four reasons why the lubrication system is important in a tractor (2mks)
15. Name three dual purpose sheep breeds (1½mks)
16. Name two groups into which vitamins are classified (1mk)
17. State four ways in which power transmitted from the engine is made available for use (2mks)
18. State four cultural uses of livestock (2mk)
19. Name three enzymes contained in the pancreatic juice (1½mks)

### SECTION B : 20MARKS

20. Study the diagram below and answer the questions that follow



i. Name the practice illustrated above

(1mk) ii. Name the type

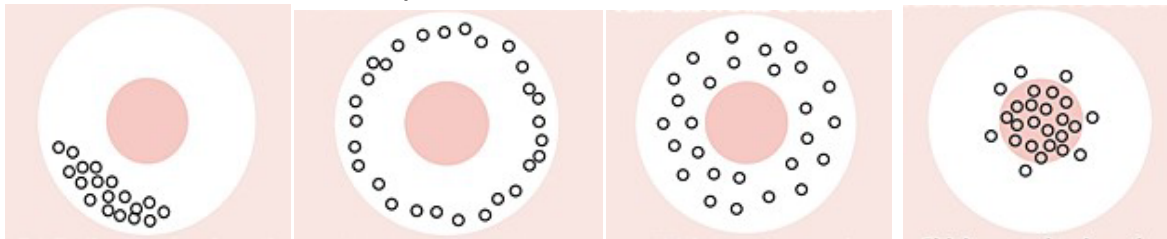
of method illustrated above

(1mk) iii. Give the identification number of

the pig illustrated above

(1mk) iv. Using a diagram, illustrate how animal number

85 can be identified using the above diagram (2mks) 21. The diagrams below show the behavior of chicks in a brooder in response to heat



A

B

C

D

a) Explain the behavior of chicks in the brooder

(4mks)

A:

B:

C:

D:

b) Explain why the brooder is rounded

(1mk)

22. The diagram below shows an external parasite in livestock



a) Identify the parasite

(1mk)

- b) State two effects of the parasite in cattle (2mks)  
c) Give two control measures of the parasite (2mks)

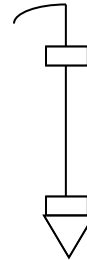
23. Study the following tools and equipment then answer the questions that follow:



X



Y



W

- a) Identify the tools labeled W, X and Y (3mks)  
b) State the function of the tool labeled W (1mk)  
c) State one maintenance practice carried out on tool Y (1mk) **SECTION C :**

**40MARKS**

24. a). Discuss anthrax disease under the following sub headings:  
i. Animals affected (1mk)  
Causal organism (1mk)  
iii. Symptoms observed in affected animals (4mks) iv. Control measures (4mks)  
b). (i). State four problems associated with artificial methods of service in cattle production (4mks)  
(ii). Give six factors that affect productivity of draught animals (6mks)  
25. a). Discuss any six sources of power on the farm (12mks)  
b). Discuss the components that make up the power transmission mechanism of a tractor (8mks)  
26. a). Describe any five general effects of parasites on livestock (10mks) b).  
Outline the general characteristics of beef cattle breeds (10mks)

## PREDICTION 7 PAPER 1

### SECTION A (30 MARKS)

Answer all the question in this section in the spaces provided.

1. Name the routine field practice done by:
  - (a) Removal of extra suckers in banana stool. (½mrk)
  - (b) Removal of old stems down to level of top foliage in pyrethrum. (½mrk)
  - (c) Removal of suckers from coffee bushes. (½mrk)
2. State three characteristics of phosphate fertilizers. (1½mks)
3. State two physical properties of soil that influence crop production. (1mk)
4. Outline four ways by which crop pests are classified. (2mks)
5. State three uses of labour records in Agriculture. (1½mks)
6. Give four advantages of overhead irrigation in crop production.

- (2mrks)
7. List three basic concepts in agricultural economics. (1½mrks)
  8. Give four varieties of tomatoes grown for processing. (2mks)
  9. State four pasture management practices done to enhance yields per unit area. (2mrks)
  10. Name two macro-nutrients which classified as:
    - (a) Fertilizer elements. (1mrk)
    - (b) Liming elements. (1mrk)
  11. Give three ways by which pruning helps to control disease in crops. (1½mrks)
  12. State four ways in which weeds are excellently adapted to the environment. (2mrks)
  13. State four factors that determine the time at which a crop is planted. (2mks)
  14. Give four factors that affected the effectiveness of a pesticide. (2mrks)
  15. State four reasons for staking tomatoes in crop production. (2mrks)
  16. State three cultural methods of soil and water conservation. (1½mrks)
  17. State four benefits of having a land title deed to a farmer. (2mrks)

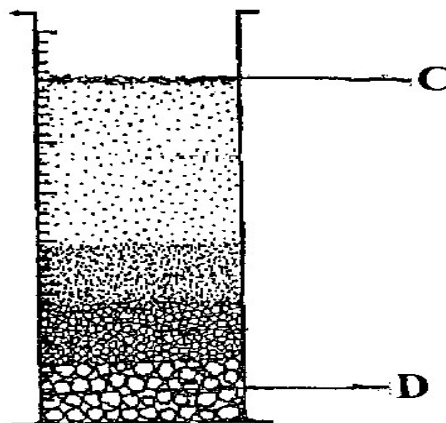
**SECTION B. (20 MARKS)**

**Answer ALL questions in this section in the spaces provided**

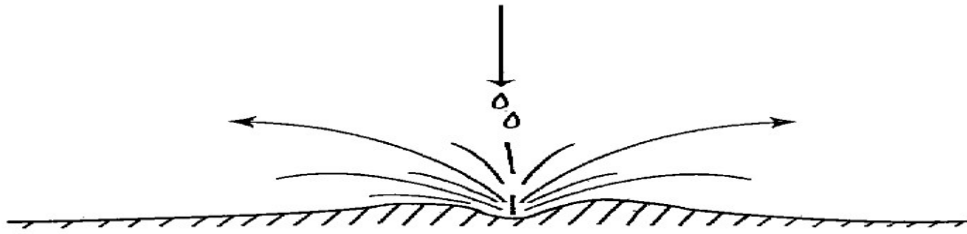
18. Study the diagram below and answer the questions that follow. The illustrations represent a method of crop propagation.



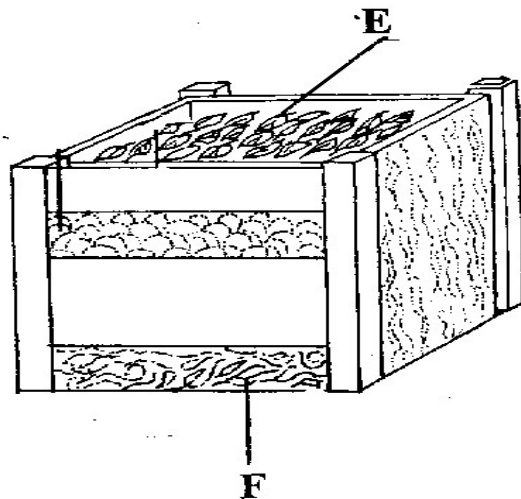
- (a) Name the crops propagated by illustrations: (2mrks) A  
B
  - (b) Give three factors that promote the rooting of illustration A. (3mrks)
- 19 The diagram below illustrates an experiment using garden soil. Study it carefully and answer the questions that follow



- (a) What was the aim of the experiment? (1mrk)  
(b) Name the parts labeled C and D. (2mrks)  
(c) Name the property of soil being investigated. (1mrk)
20. The illustration below shows a type of soil erosion. Study it carefully and answer the questions that follow.



- (a) Identify the type of erosion illustrated above. (1mrk)  
(b) Give two soil factors that influence the rate of soil erosion. (2mrks)  
(c) Name one agent of soil erosion. (1mrk)
21. The diagram below represents a method of manure preparation. Study it carefully and answer the questions that follow.



- (a) Identify the type of manure being prepared. (1mrk)  
(b) Name the parts labeled E and F. (2mrks)  
(c) Give four disadvantages of manures. (4mrks)

### **SECTION C (40MARKS)**

**Answer any two questions from this section in the answer sheet provided**

22. (a) Describe land preparation for planting of grass seeds. (4mrks)  
(b) Explain the precautions that should be observed during the harvesting of pyrethrum (4mks)

- (c) Explain six benefits of land consolidation in Agricultural production. (12mrks)
23. (a) Describe the field management practices that should be carried out on dry bean production. (10mrks)
- (b) Explain five factors that should be considered when deciding on the depth of planting a seed. (5mrks)
- (c) Describe the characteristics of a crop suitable for green manure. (5mrks) 24.
- (a) Describe the procedure followed when collecting a soil sample from the field for testing in the laboratory (5mks)
- (b) Describe the benefits of using certified seeds in crop production. (5mrks)
- (c) Describe the safety precautions a farmer should take when using herbicides. (10mks)

## PAPER 2 SECTION A (30 Marks)

**Answer all questions in this section in the spaces provided.**

1 Name four meat breeds of rabbits. (2mks)

2 The following is a list of livestock diseases.

Brucellosis

Trypanosomiasis

Newcastle

Anthrax

African swine fever

Black guater

Which of the two diseases

(a) Are both bacterial and zoonotic. (1mk)

(b) Highly infectious (1mk)

3 State four qualities of marketable eggs. (2mks)

4 Mention four reasons for treating timber before using on farm structures. (2mks)

5 List four sources of power in the farm. (2mks)

6 State four advantages of embryo transplant in cattle. (2mks)

7 Give four circumstances under which a farmer would use an ox-drawn cart instead of a tractor drawn trailer on the farm. (2mks)

8 State four factors that would contribute to the depression of farm equipment. (2mks) 9 List two tools used for each of the following farm operations.

(i) Tightening barbed wires during fencing. (½ mk)

(ii) Smoothing concrete floors during plastering (½ mk)

10 State four advantages of deep litter system in poultry rearing. (2mks)

11 State four ways of preventing mastitis in lactating cattle. (2mks)

12 State four factors to be considered when selecting heifers for milk production. (2mks)

13 State four features of a good maize store. (2mks)

14 State four methods that a farmer can employ to ensure maximum power output from animal power.

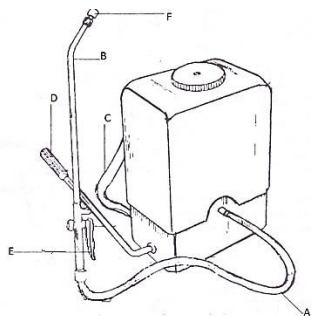
15 State four advantages of artificial incubation in poultry rearing. (2mks)

16 Give two reasons for flushing in sheep management. (1mk)

## SECTION B (20 Marks)

*Answer all questions provided in this section in the spaces provided.*

17 The following diagrams illustrate farm equipment. Study it and answer the questions that follow



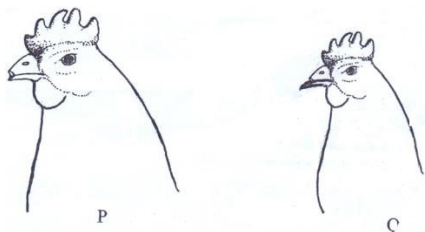
(a) Name the parts labeled A, B, C and D.

(b) Give the function of each of the parts labeled E and F.

(c) Give one use of the above equipment.

(1mk)

18 The illustration below shows a practice in layer birds. Use them to answer the questions that follow.



(a) What practice is represented above?

(1mk)

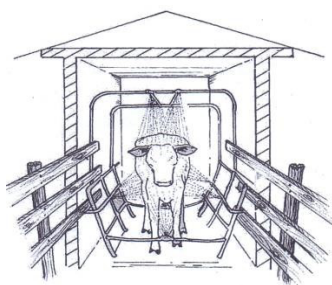
(b) Which illustrated shows the right way of carrying out the practice.

(1mk)

(c) State three reasons for carrying out the practice in poultry.

(3mks)

19 The diagram below shows a routine practice being carried out on an animal. Study it and answer questions that follow.



(a) Identify the practice.

(1mk)

(b) Name the structure in which the practice is being carried out.

(1mk) (c)

Give three advantages of using the above structure instead of a plunge dip. (3mks)

20. Fill the table below for the following diseases.

Disease	Cause	Characteristic/Symptom	Preventive measures
Coccidiosis			

Blackquater			vaccination
Rinderpest	virus		
Milk fever			

### SECTION C (40 Marks)

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

21

- Explain eight factors that influence the composition of milk in a dairy cow. (8mks)
- Outline six causes of cannibalism in poultry. (6mks)
- Explain six uses of fences in the farm. (6mks)

22

- Describe New castle disease under the following sub-headings.
  - Causal organism (1mk)
  - Animal affected (1mk)
  - Symptoms (5mks)
  - Control measures. (3mks)
- Describe the principle operation of four-stroke cycle engine. (10mks)

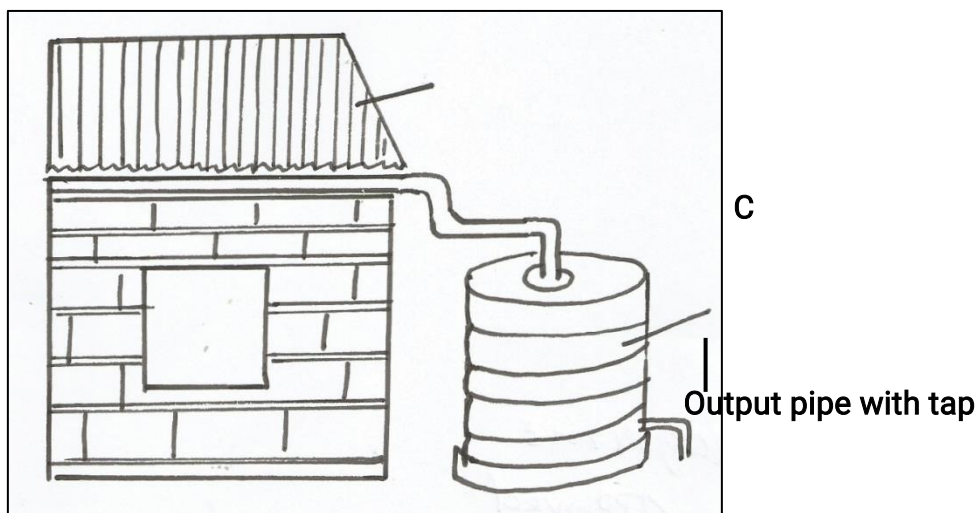
23

- Outline five signs of parturition in cattle. (5mks)
- State five reasons for carrying out inbreeding in livestock production. (5mks)
- Give five effects of parasites on livestock. (5mks)
- Describe the difference between ruminants and non-ruminants digestive system. (5mks)

### PREDICTION 8 PAPER 1 SECTION A 30MKS

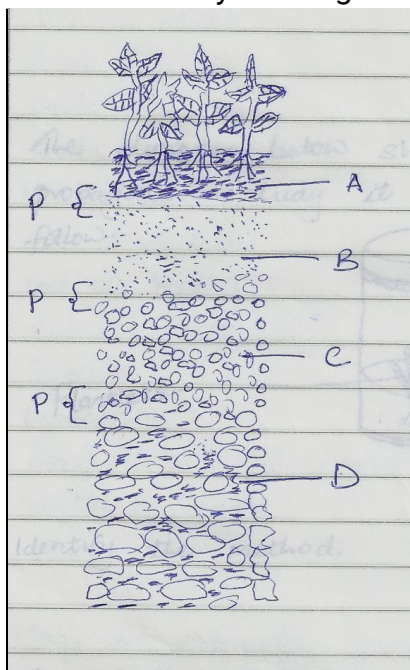
- Define the term shifting cultivation 1mks
- Differentiate between organic farming and agro forestry. 2mks
- Differentiate between fodder crops and pasture crops (2mks)
- State four factors determining the quality of tomatoes. 2mks
- List **three** main ways in which pasture crops can be classified (11/2mks)
- Define the term soil erosion (1mk)
- Distinguish between a dam and a weir (1mk)
- State 4 benefit of agriculture to our economy. 2mks
- Give 4 advantages of tissue culture 2 mks
- State properties of soil that are influenced by its texture. 2mks
- State four post-harvest practices carried out on maize grain 2mks
- Outline government policy that regulate amount of imported good. 2mks
- Give importance of sub soiling. 2mks
- Name three types of surface irrigation (11/2mks)
- Give Four advantages of sub-surface irrigation (2mks)
- Outline 4 factors determining number of secondary cultivation when preparing a seedbed. 2mks
- Give 4 factors affecting herbicides selectivity 2mks

### SECTION B (20 MKS)



- Identify the method of water harvesting above. (1mk)
- Give **two** factors that will determine the amount of water collected from the above-mentioned structures. (2mks)
- Outline one maintenance practice that should be carried out on part label (1mk)
- Name one other method used to collect water in the farm. (1mk)
- Describe the procedure of sampling soil for testing. (5mks)

19 The diagram below illustrates a feature observed after digging the soil several metres deep. Study the diagram carefully and answer the question that follow



- Identify the feature that the diagram above represents in the study of soil (1mrk)
- What is the name given to the part labeled p (1mrk)
- Give a reason why part b is also referred to as layer of accumulation (1mrk)
- State two ways in which the knowledge of the above feature would be of benefit to farmer (2mrks)

20. The diagram below shows a method of crop propagation. Study it and answer the questions that follow



- Identify the method (1mrk)
- Name two crops that can be propagated using this method. (2mksmrk)
- Give two ingredients used when preparing the above activities. (2mks )

**SECTION C 40 MKS (ANSWER ANY TWO QUESTION IN THIS SECTION)**

21

- Outline four Importance of treating water (4mks)
  - Explain four factors influencing crop rotation. (8mks)
  - Explain Factors influencing soil erosion (8x1=8mks 22.
- Explain Importance of drainage as a land reclamation method 5x2=10mks
  - state reasons for carrying out minimum tillage (5mks)
  - Outline Factors determining the quality of farm yard manure (5mks)

23

- Describe planting of carrot under the following subheadings
  - Planting (5 x 1 = 5mks)
  - Field management (5 x 1 = 5 mks)
- Outline Importance of organic matter. (5 x 1 = 5mks)
- State Four benefits of soil structure in crop production. 5mks

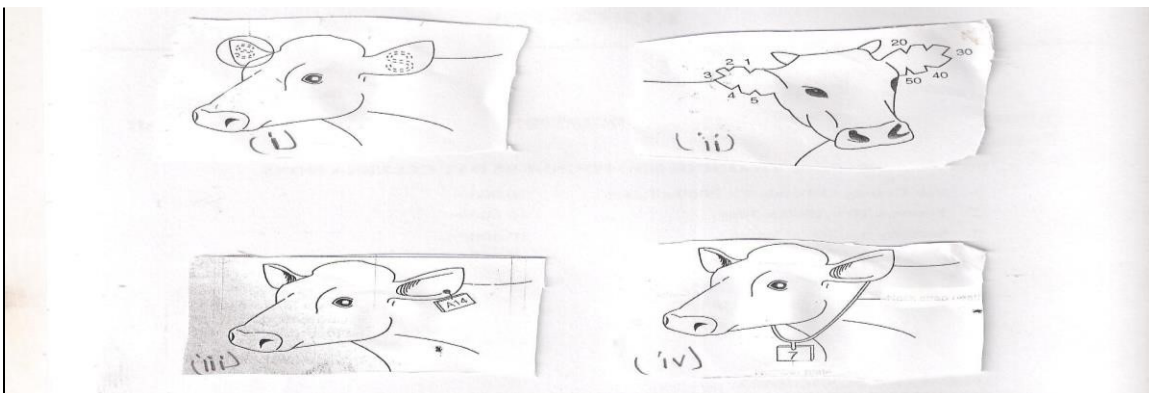
## PAPER 2

### SECTION A- 30 MARKS (ATTEMPT ALL QUESTIONS)

1. Give four reasons maintaining farm tools. 2mks
2. Name four complementary tools. 2mks
3. Name the following breeds of livestock. 3mks
  - i. A black pig with white shoulders and white forelegs.....
  - ii. White rabbit with red eyes ..... iii. A camel with two humps.....
4. (a) State four importance of keeping livestock healthy 2mks  
(b) Give three physical appearance of an animal to be observed when checking on the health of an animal. 1½mks
5. Name four nutritional diseases of livestock. 2mks
6. State four effects of external parasite on livestock production. 2mks
7. Give four mechanical methods of controlling ticks. 2mks
8. State 3 characteristics of succulent roughages. 1 1/2mks
9. List down the four compartments of a ruminant stomach. 2mks  
10. (a) What is selection in livestock production? 1mk  
(b) Name two methods of selection. 1½mks
11. What is the role of the following parts of the reproduction systems in livestock. 2mks
  - i. Ovary ii. Uterus iii. Fallopian tube iv. Testis
12. Give three signs of heat in a rabbit. 1½mks
13. Give four reason why castration is done in livestock production. 2mks
14. State four reasons as to why bees would swarm away. 2mks

### SECTION B(20marks)

15. Below is different method of identifying farm animals. Study the diagram and answer the questions that follow.



- a. Name the methods of identification . 2mks
- b. Name the tool that is used to identify in B above. 1mk



- 20.
- a) Compare and contrast the digestive system of a ruminant and a non-ruminant. 7mks
  - b) (Describe the uses of fences in a farm. 10mks
  - c) Outline the work of worker bees in a bee colony 3mks
- 21.
- a) Give five causes of cannibalism in poultry 5mks
  - b) Describe the symptoms of roundworm infestation in livestock. 7mks
  - c) (Describe the control measures for cannibalism in layers. 8mks

## PREDICTION 9

### PAPER 1

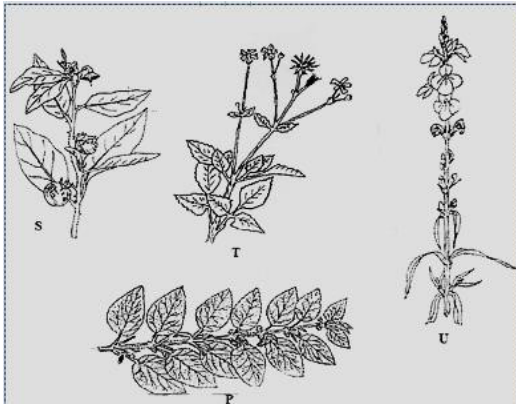
#### SECTION A (30 marks)

- 1. State four ways by which plant nutrients are lost. (2 marks)
- 2. Explain the meaning of the term production function. (1 mark)
- 3. Name four product relationships in Agriculture. (2 marks)
- 4. State four uses of a green house in a farm. (2 marks)
- 5. Name four farming practices farmers can use to achieve minimum tillage. (2 marks)
- 6. Outline four importance of mulching in Agricultural land. (2 marks)
- 7. Name four sources of Agricultural credit. (2 marks)
- 8. Give four ways of harvesting water in the farm. (2 marks)
- 9. Name the form in which the following nutrients are absorbed by plants. (2 marks)
  - i. Nitrogen
  - ii. Phosphorus
  - iii. Sulphur
  - iv. Calcium
- 10. State four sites Agroforestry trees can be planted in the farm. (2 marks)
- 11. Outline four factors affecting the efficiency of pesticides. (2 marks)
- 12. Name a crop that require the following training. (1½ marks)
  - a. Propping
  - b. Threlishing
  - c. Staking
- 13. List four sources of organic matter in the soil. (2 marks)
- 14. Give advantages of tissue culture. (2 marks)
- 15. Outline four factors that influence the supply of casual labour on the farm. (2 marks)
- 16. State three properties of soil that are influenced by its texture. (1½ marks)

## SECTION B

Answer all questions in the spaces provided.

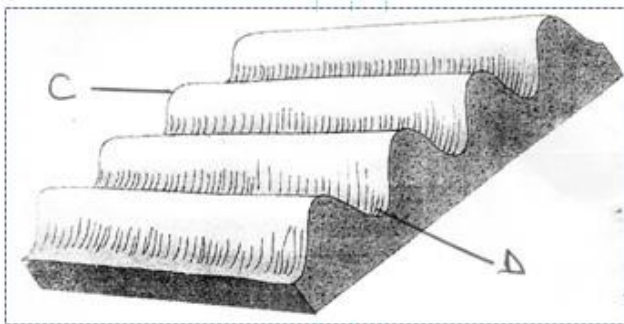
17. Below are weeds. Study them and carefully answer the questions that follow.



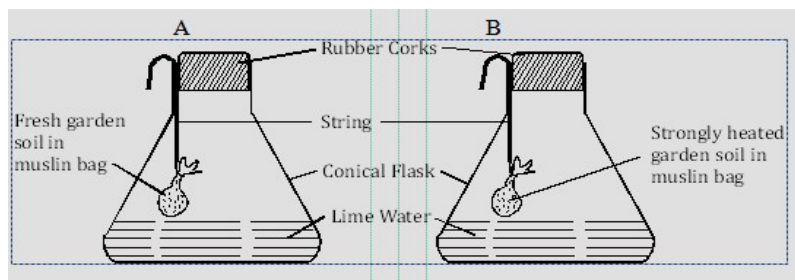
Identify weeds labeled S,T,U and P.

(4 marks)

18. The figure below illustrates a tertiary operation. Study it and answer the question that follow.



- Identify the tertiary operation illustrated above. (1 mark)
  - Name the part labeled C and D. (2 marks)
  - Name two other tertiary operations that can be carried out in the farm apart from the one shown above. (2 marks)
19. A form one student set up experiment as shown below to study an aspect of soil. The set up was left for six hours. Study it and answer the questions that follow.



- What was the aim of the experiment? (1 mark)
  - State two observations that were made in each of the flasks C and D. (2 marks)
  - Why was the soil in flask D strongly heated? (1 mark)
  - Outline ways in which soil living organisms affect agricultural production. (2 marks)
20. The table below shows the population and gross domestic products of countries A and B.

Country	Gross Domestic product (millions)	Population (millions)
A	1800	36
B	1200	15

- Calculate the per capita income for each country. Show your working. (2 marks)
- Which of the following two countries is more developed economically. (½ mark)
- How can agriculture increase the gross domestic product of a country. (½ mark)

### **SECTION C 40 marks)**

Answer any two questions on this section in the spaces provided after the last question.

21. Describe the production of dry beans under the following subheading.
- Land preparation. (5 marks)
  - Planting (7 marks)
  - Harvesting (3 marks)
  - Outline any five post-harvesting practices carried out on beans after harvesting. (5 marks)
22. a. Outline various ways through which vegetation cover reduces soil erosion. (4 marks)
- Outline various conditions which necessitate land clearing. (4 marks)
  - Outline various advantages of land consolidation. (6 marks)

- d. Give six benefits of planting annual crops early. (6 marks)
23. The following table shows production of maize using various levels of input.

Units of variable input (man days)	Total output	Marginal product	Average product
0	0	-	-
1	6	-	-
2	18	-	-
3	33	-	-
4	40	-	-
5	45	-	-
6	48	-	-
7	48	-	-
8	40	-	-

- a. Work out the marginal product and the average product and fill in the table. (9 marks)
- b. On a graph paper, plot graphs showing total output marginal product and average product against the variable input.
- c. On the graph, draw lines to show the following zones of production. (3 marks)
- Increasing returns production function.
  - Decreasing returns production function.
  - Diminishing return zone.

## PAPER 2

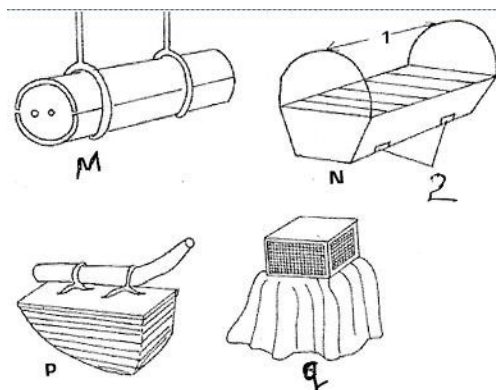
Answer ALL questions in this section on the spaces provided.

- Name the tool or equipment that is complementary in use with : (2 marks) i. Canula ii. Elastrator iii. Lead stick iv. Cold chisel
- List four factors considered when formulating livestock rations. (2 marks)
- State six methods a farmer can use to control livestock diseases. (3 marks)
- State four advantages of using corrugated iron sheets for roofing instead of asbestos (2 marks)
- State four practices through which a farmer would ensure that no engine knock occurs in a tractor. (2 marks)
- State four practices that a farmer should carry out to reduce egg eating in poultry house. (2 marks)
- State four advantages of carrying out raddling in sheep management. (2 marks)
- Outline four importance of additives in livestock feeds. (2 marks)
- Give four control measures of milk fever. (2 marks)
- Give four characteristics of a heavy poultry breeds. (2 marks)
- Give four reasons why tilapia fish is commonly reared in Kenya farm ponds. (2 marks)
- Give four reasons for seasoning timber before use. (2 marks)
- Give four factors which affects digestibility. (2 marks)
- Outline four control measures of liver fluke. (2 marks)
- Differentiate between mothering ability and prolificacy. (1 mark)

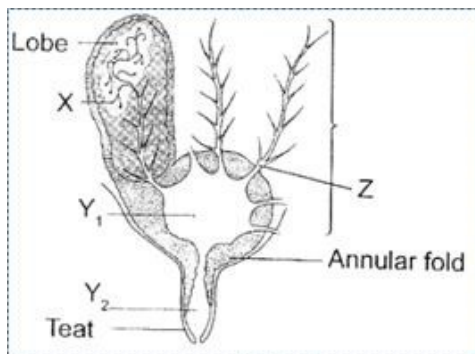
## SECTION B (20 MARKS)

Answer all the questions in this section in the spaces provided.

16. Diagram M, N, P and Q shows some structures used in apiculture. Use them to answer the questions that follow.

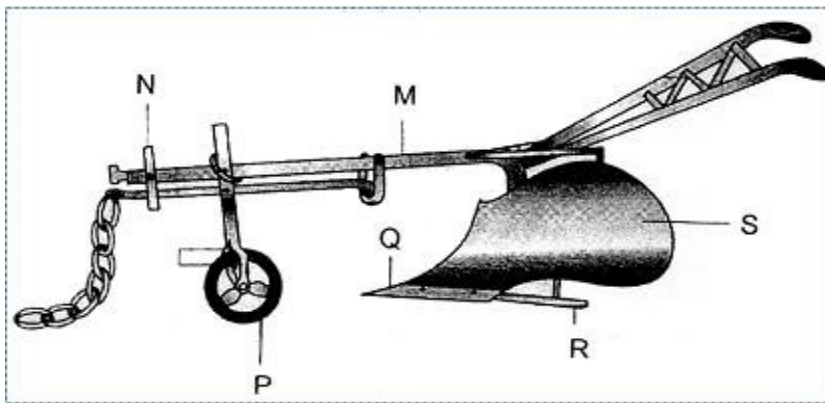


- Identify the structure labeled M, N, P, Q. (2 marks)
  - State the use of equipment P and Q. (2 marks)
  - State one advantage structure N has over structure M. (1 mark)
  - State the use of the parts labeled 1 and 2 on structure N. (2 marks)
17. The diagram below illustrates a cross section of a cow's udder. Study it carefully and answer the questions that follow.



- Identify the parts labeled:  
X  
Y<sub>1</sub>  
Y<sub>2</sub>  
Z (2 marks)
  - Name two hormones that control milk let down in a cow. (1 mark)
18. Below is an illustration of a farm implements. Study it carefully and answer the questions that

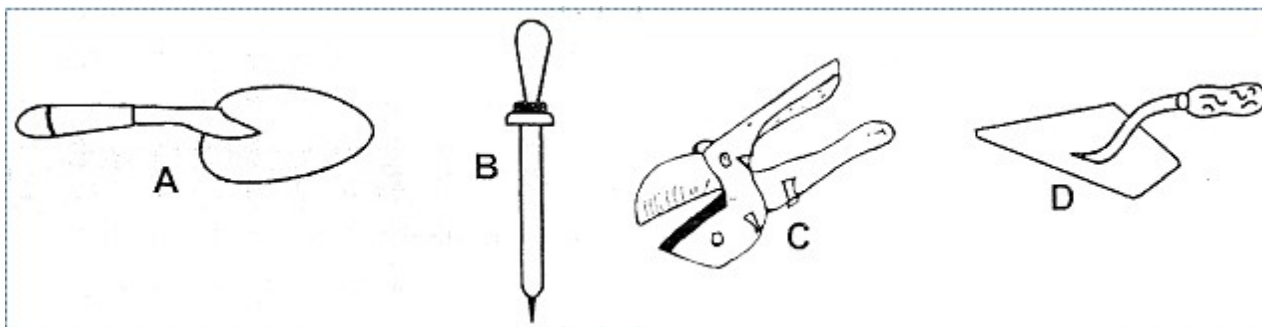
follow.



- Identify the farm implements.
- Name the parts labeled N, P, Q, R and S.
- Give the function labeled P and S.

(1 mark)  
(5 marks)  
(2 marks)

19. Study the diagrams below and answer the questions that follows.



Identify tools A, B, C and D.

(2 marks)

### SECTION C (40 MARKS)

Answer two questions in this section on the spaces provided after question 22.

- Explain the operational differences between disc plough and mould board plough. (12 marks)
  - Outline 8 microbial activities that take place in the rumen (8 marks)
- Describe the characteristics which eggs for incubation should possess. (6 marks)
  - Outline various methods used to control cannibalism in poultry management. (8 marks)
  - Outline 6 advantages of artificial calf rearing. (6 marks)
- Discuss fish farming in a fish pond under the following sub headings.
    - Stocking the pond (4 marks)
    - Feeding the fish (4 marks)
    - Harvesting fish (4 marks)
    - Maintenance of the pond. (4 marks)
  - Outline precaution observed when using tools and equipment. (4 marks)

## PREDICTION 10 PAPER 1

### SECTION A (30 MARKS)

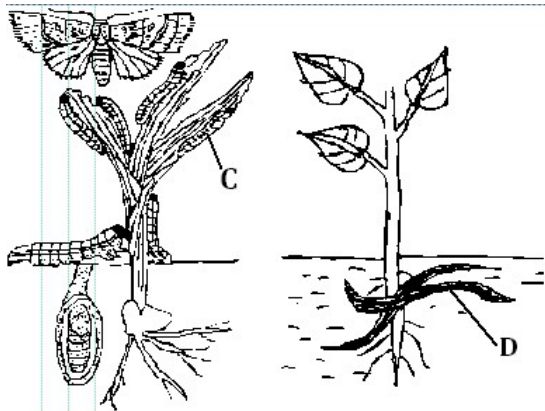
1. State four soil factors that may influence the crop grown by a farmer. (2mks)
2. State four problems that would be experienced by a farmer for persistent use of herbicides in crop production. (2mks)
3. Outline four environmental factors which favour the population of pests in a given locality. (2mks) 4
  - a) What is land reform? (½ mk)
  - b) Name three practices of land reform in Kenya today. (1½mks)
5. a) What is elasticity of demand? (½ mk)
  - b) Give three reasons why an agricultural commodity may be price in-elastic. (1½ mks)
6. a. Differentiate the following.
  - i) Topping from Top dressing in pasture management. (1 mk)
  - ii) Itinerant Traders from broker agents (1 mk)
  - iii) Weir from a Dam in soil and water management. (1 mk)
  - iv) Agro-silviculture from Agro-silvopastoral. (1 mk)
7. Give two reasons for carrying out rogueing in a crop field. (1 mk)
8. a. What is a soil sample? (½ mk)
  - b) Outline three activities that are carried out during soil sampling. (1½mks)
9. List down two maintenance practices of sub-surface irrigation. (1mk)
- 10 a) State the law of equimarginal returns in a production process. (½mk)
  - b) State three un-desirable effects of weeds in pastures. (1½mks)
11. Given that tomatoes are planted at a spacing of 60cm by 30cm. Calculate the plant population in a plot of land measuring 12m by 9m. Show your working. (2mks)
- 12 a) what is labour peak in the farm? (½ mk) b) State three ways in which labour peaks can be overcome in the farm. (1½mk)
- 13 a) what is a land title deed? (½ mk) b) State four advantages of a land title deed to a farmer. (2mks)
14. Calculate the amount of  $P_2O_5$  contained in 200kg of a compound fertilizer 25:10:5 (2 mks)
- 15 a) what is a farm budget? (½ mk) b) State three benefits of budgeting to a farm manager. (1½ mks)

### SECTION B (20 MARKS)

**Answer All the questions in this section**

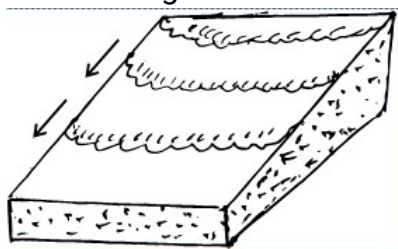
16. Alongside is a graph showing the relationship between two market forces represented by curves A and B in price determination. Study the graph carefully and answer the questions below.



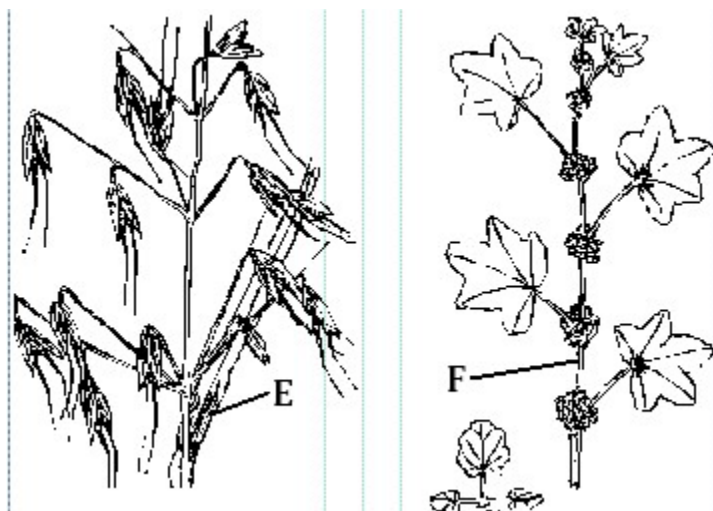


- a) i) Identify pests C and D (1 mark) ii) Outline the most likely damage that can be caused by pests C and D. (1mk)

19. The diagram illustrates a type of erosion. Carefully study it, and answer the questions that follow:-



- a) Identify the type of erosion. (½mk)  
 b) i) Name the best two structures used in controlling the above type of erosion. (2mks)  
 ii) Outline three effects of the above type of erosion in the farm. (1½mks)
20. The diagram below represents weeds. Study them carefully and answer the questions that follow.



- a) Identify the weeds labelled E and F. (1mk)

	Kshs.
Sales of poultry	5,000.00
Opening valuations	10,000.00
Purchase of seeds	2,800.00
Purchase of fertilizers	2,000.00
Sales of Beans	1,200.00
Sales of vegetables	500.00
Closing valuations	15,000.00

- b) i) Give two reasons why weed E is more harmful in a field of wheat than weed F. (2mks) ii)  
State the significance of weed F in livestock production. (1mk) **SECTION C (40 MARKS)**

**Answer any TWO questions from Section C**

- 21 a) Outline the principles governing co-operative societies in Kenya. (5mks) b) Name and explain methods of fertilizer application. (5mks)  
c) Discuss the common micro-catchments used in soil and water conservation in tree crops. (5mks)  
d) Explain the importance of a balance sheet in a farming business. (5mks)
22. Describe the production of tomatoes under the following headings.  
a) Nursery preparation. (12 mks)  
b) Transplanting (5mks)  
c) Field management practices. (3mks)
23. Maboga farm started the year on 1: 2011 and as at 31. 12. 2011 had the following transactions.

- a) Prepare a profit and loss Account for Maboga farm. (10mks)  
b) Did the farm qualify for credit? Give one reasons. (2mks)  
c) Describe the procedure followed during ensiling. (8mks)

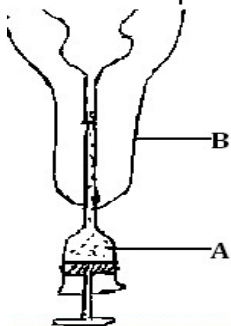
**PAPER 2**

1. Give the name used to describe the following animals. (1½mks)

- i) Pig that has given birth several times. ii) Castrated male bird (domestic fowl) iii) A young one of a rabbit after birth.
2. Name the breed of a dairy cow with light yellow colour, to a shade of black, protruding black eyes with a black muzzle and tail switch. (1mk)
3. Name the intermediate host of the following. (1mk)
- i) Taenia saginata .  
ii) Fasciola gigantica .
4. a) State one use of each of the following farm tools. (1mk)
- i) Mallet ii) Elastrator
- b) State the functional difference between a marking gauge and mortise gauge. (1mk)
- c) State four problems associated with a farmer who does not maintain his farm tools and equipments. (2mks)
5. Outline four duties of a water bee in a bee colony. (2mks)
6. State four causes of infertility in dairy cattle. (2mks)
7. Outline four factors that determine the nutritional requirement of cattle. (2mks)
8. State four practices that can be carried out to control egg breaking and drinking by birds in a deep litter system. (2mks)
9. Why is it necessary to weigh piglets immediately after farrowing and weaning? Give four reasons. (2mks)
10. List four specific symptoms of east coast fever diseases in cattle. (2mks)
11. State four disadvantages of wind power. (2mks)
12. Name two methods of timber treatment. (2mks)
13. State four disadvantages of using thatch as roofing material. (2mks)
- 14 a) what is depreciation in farm tools & equipments. (½mk) b) State two possible causes of depreciation in farm tools and equipment. (1mk)
15. Name four components of the ignition system in a tractor engine. (2mks)
16. Why is it necessary to feed young mammals with colostrum for the first two weeks after birth? Give three reasons. (1½mks)

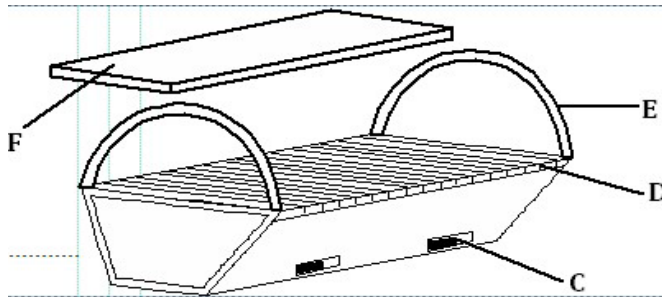
**SECTION B (20 MARKS)**

17. The diagram below represents a routine practice carried out on dairy animals.

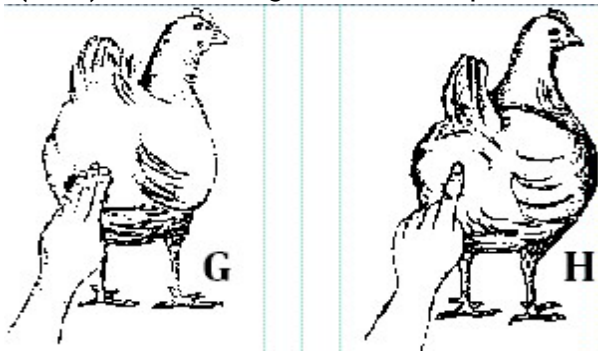


- a) Identify the practice illustrated above. (½mk)  
 b) i) Name the material labelled A in the illustration above. (1mk) ii) Give three reasons why its necessary to apply milking jelly in the part labelled B. (1½mks)

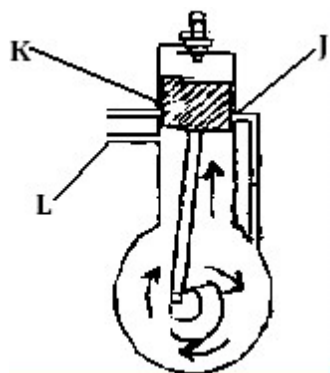
18. Below is a diagram of an equipment used in agriculture. Study it carefully and answer the questions that follow.



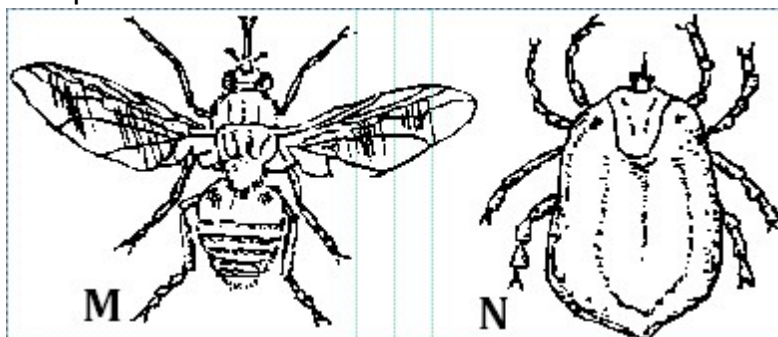
- a) Identify the equipment. (1mk)  
 b) Name the parts labelled C, D E. (1½mks)  
 c) i) State one role played by the parts labelled C, D, E and F (4mks)  
 ii) Name other two types of equipments which serve the same function as the one illustrated above. (1mk)
19. The diagram below represents a practice carried on birds.



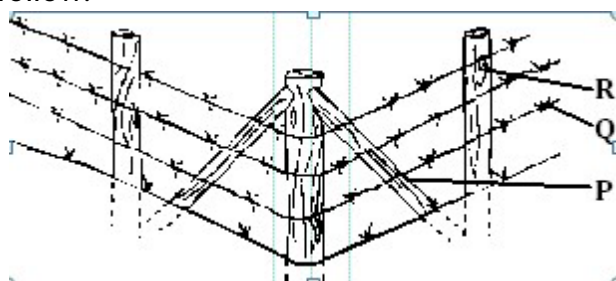
- a) State the purpose of the practice. (½mk)  
 b) Identify with a reason which of the two birds is desirable. (1mk)
20. The diagram below represent a stroke in a two stroke cycle Engine. Study it carefully and answer the questions that follow:



- a) i) Identify the stroke. ( $\frac{1}{2}$ mk)  
 ii) Name the parts labelled J, K and L. ( $1\frac{1}{2}$ mks)  
 b) State what is happening in the parts labelled K and L during this stroke. (1mk)
21. The diagrams below represent common parasites in livestock production. Study them carefully and answer the questions that follow.



- a) Identify the parasites labelled M and N. (1mk)
- b) i) Name one disease transmitted by parasites M and N in livestock production. (1mk) ii)  
 Outline one non-chemical methods of controlling parasites M and N. (1mk)
22. The diagram below represents a part of fence in a farm. Study it carefully and answer the questions that follow.



- a) Identify the part of the fence represented. ( $\frac{1}{2}$ mk)  
b) i) Name the parts labelled P and Q. (1mk) ii) State three disadvantages of the type of the fence represented above. (1½mks)

### SECTION C (40 MARKS)

- 23 a) Compare the use of an-oxen drawn plough with a tractor drawn mouldboard plough. (10 mks)  
b) Outline the procedure followed in establishing the foundation of a permanent farm building.(10 mks)  
24. Describe the rearing of layers in a deep litter system from the point of lay. (20mks)  
25 a) i) Describe the life cycle of tapeworms. (8mks) ii) State and describe two measures of controlling tapeworms. (2mks) b) State and describe the general measures undertaken to control livestock diseases. (10mks)

### PREDICTION 11

#### PAPER 1 ANSWER ALL QUESTIONS IN THE SPACES PROVIDED

- 
1. Give two reasons why farmers are encouraged to practice organic farming. 1mk  
2) State two advantages of earthing up in crop production. 1mk  
3) Give four disadvantages of landlordism and tenancy system of land tenure. 2mks  
4) How are the following conditions prevented in crop production? 2mks i)Forking ii) Greening of root tuber.  
5) Give two reasons why farmers keep farm accounts. 1mk  
6) Give a reason for storing water for 36hrs during water treatment. ½ mk  
7) List four natural factors that encourage soil erosion. 2mks  
8) Define the following terms as used in pasture establishment. 1mk i) Nurse crop ii) Oversowing  
9) Give a reason for each of the following during compost making . 2mks i) Adding soil ii) Adding farmyard manure  
iii) Adding ash iv) Adding calcium ammonium nitrate.  
10) State two biotic factors that are useful in agricultural production. 1mk  
11) List four post harvest practices that are carried out in maize production. 2mks  
12) State three functions of Nitrogen in crops 1 ½ mks 13) State four advantages of overhead irrigation. 2mks  
14) Outline two factors that could determine the amount of fertilizers to be top-dressed to a crop in the field. 1mk
-

- 15) State four qualities of a parent plant which should be considered when selecting vegetative material for propagation. 2mks
- 16) Distinguish between Gross Domestic Product (GDP) and Gross National product (GNP). 2mks
- 17) List three benefits of a title deed to a farmer. 1 ½ mks
- 18) State two requirements of a successful tissue culturing in crop production. 2mks
- 19) Give three methods of practicing rotational grazing. 1 ½ mks

## SECTION B (20 MKS) COMPULSARY

- 20) The diagram below shows a common weed. study it and answer the questions that follow.

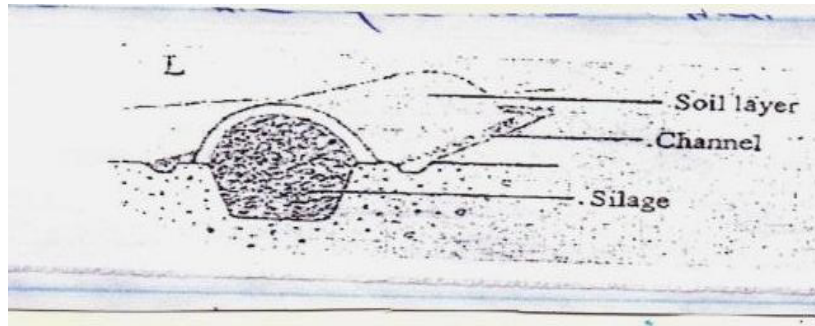


- a) Identify the weed illustrated above. 1mk
- b) Give a reason as to why it is difficult to control the weed illustrated above. 1mk

- 21) The farm record below was extracted from a farmer's book. Study it and answer the questions that follow.

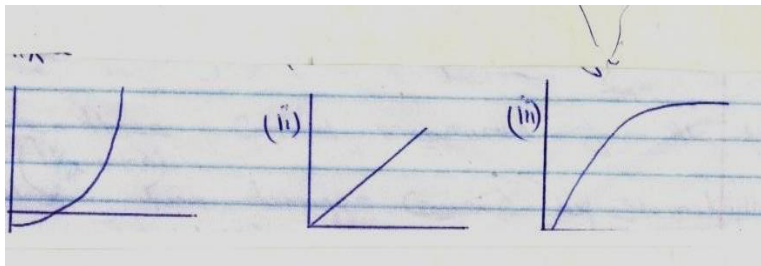
Name of person	Payroll No.	DAYS				Days worked	Rate of pay Ksh	Total pay(Ksh)	Sign of workers
		1	2	3	4				
DAVID	01					20	@ 100	2000/=	
JULIE	02					25	@ 200	2500/=	

- 22) Observe the structure labeled L and answer the questions that follow.



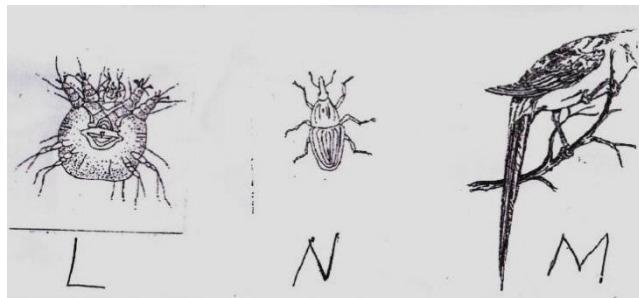
- Name the structure labelled L \_ 1mk
- State the importance of the channel around the structure L. 1mk
- Outline two reasons for conserving forage . 2mks
- Name two main silage losses that occur ensiling. 1mk

23) Below are graphical representation showing different types of production functions. Study them and answer the questions that follow.



- Identify the types of production function represented by the diagrams. 3mks
- What is meant by production function as used in agricultural economics? 1mk

24) The diagrams below illustrate both field and storage pests.



- Identify the pests in the illustration. 1 ½ mks
- State ways in which pests L and M cause damage to crop. 1mk

- c) State three control measures for the pest N 1 ½ mks  
d) Outline two damages caused by Nematodes on crops. 1mk

### **SECTION C ( 40)**

#### **ANSWER ANY TWO QUESTIONS IN THIS SECTION**

- 25) a) Discuss maize production under the following sub-headings:-  
i) Ecological conditions. 3mks ii) Field preparation. 3mks  
iii) Planting and field management. 4mks  
b) Describe transplanting of tomatoes. 10mks  
26 a) Describe five management practices carried out on napier grass to maximize production. 5mks  
b) Explain five ways in which draining marshy/land encourage crop growth. 5mks  
c) Describe briefly the effects of mass wasting/solifluction  
27 a) Describe the procedure of soil sampling. 10mks  
b) Explain the reasons for establishing settlement schemes in Kenya soon after independent. 5mks  
c) Explain five ways through which soil loses fertility. 5mks

### **PAPER 2**

#### **ANSWER ALL THE QUESTIONS IN SECTIONS A and B**

- 1) Name a beef with the following characteristics. 1mk  
a) Black in colour  
b) Is polled  
c) Has a long cylindrical compact body.  
2) Give five reasons for identification in cattle management. 2 ½ mks  
3) State four qualities of eggs preferred by consumers in the market. 2mks  
4) List four predisposing factors of livestock diseases. 2mks  
5) Differentiate between isolation and quarantine in livestock health. 2mks 6)  
Name three points of the three point hitch implements. 1 ½ mks 7)  
State one role of damp proof course in the foundation of a farm building. ½ mk  
8) List five signs of farrowing in a sow. 2 ½ mks  
9) Differentiate between milk secretion and milk let down. 2mks  
10) State four reasons why lubrications is important in a tractor system. 2mks  
11) Name two livestock diseases that may be controlled by use of artificial insemination. 2mks  
12) Name four uses of camels. 2mks  
13) Name one intermediate host of each of the following endoparasites.  
1mk a) Roundworms  
b) Liver-flukes  
14) List five practices carried out on wooden fences to make them last longer. 2 ½ mks  
15) Name two feed additives that can be included in livestock diet. 1mk  
16) Give one use of robot plane in the workshop.

1mk

17) List down any four financial documents kept by a farmer.

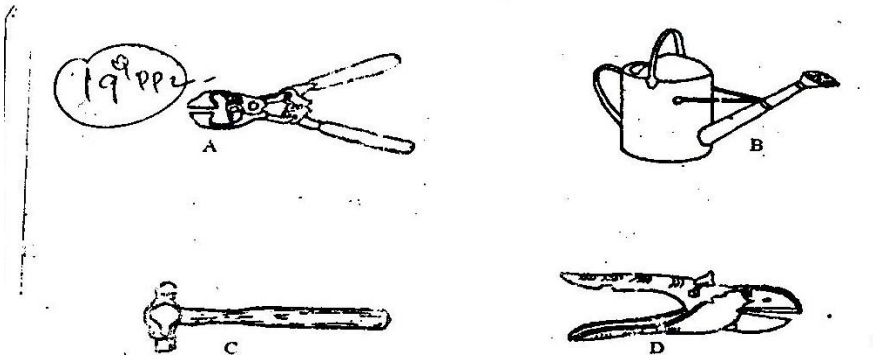
2mks

18) Name two types of inventory records used in farm records.

2mks

## SECTION B

19) Below are illustrations of farm tools and equipments.



a) Identify the tool/equipment labeled (A and B)

1mk.

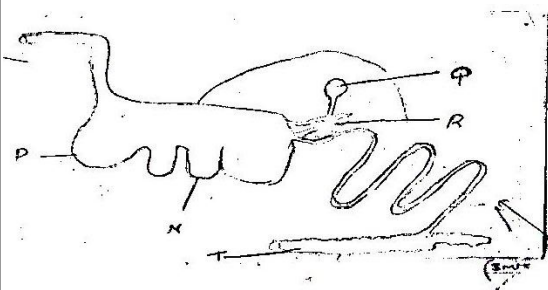
b) State two appropriate uses of the tools labelled C.

1mk

c) Mention the maintenance practices that should be carried out on D.

1mk

20) The diagram below shows the digestive system of cattle. Study it and answer the questions that follow.



a) Name the parts labeled N, P and Q .

3mks

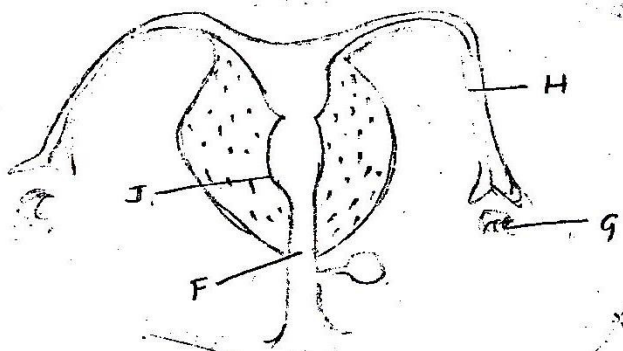
b) State one function for each of the parts labeled S and T.

2mks

c) Give one enzyme produced by each of the parts labeled R and S.

2mks

21) The diagram below show the reproduction system of a cow. Study it carefully and answer the questions that follow.



a) Name the part labeled F and H.

2mks

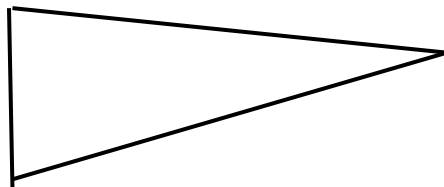
b) Give two functions of the parts labeled G.

2mks

c) Give the role of part labeled J.

1mk

22) The diagram below illustrates the general shape of a cattle breed. Study it carefully and answer the questions that follow.



a) Identify the type of breed illustrated by the above shape.

1mk

b) Give examples of the breed identified in (a) above.

2mks

c) State four physical characteristics of the type of breed identified in (a) above.

2mks

### SECTION C(40 MKS)

### ANSWER ANY TWO QUESTIONS FROM THIS SECTION

23 a) Describe the management of a sow one week before farrowing and three days after farrowing.

12mks

b) Explain eight ways in which ticks can be controlled on a livestock farm

8mks

24 a) Describe the use of various hand tools required for the construction of a wooden rabbit hutch.

10mks

b) Describe management practices that ensure clean milk production in a dairy farm.

10mks

25 (a) Discuss the disease foot rot under the following sub-headings:-

i) Predisposing factors.

2mks ii)

Symptoms of attack.

5mks iii)

Control measures.

3mks b)

Explain the factors considered when culling livestock.

5mks

Explain the different methods of pregnancy diagnosis in cattle.

