

# **KCSE 2025 PREDICTIONS**

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**2025-TOP SCHOOLS' SERIES**

## **AGRICULTURE**

**(KCSE PREDICTIONS 1-10)**

*A premium collection of expertly curated KCSE 2025 prediction questions Obtained from Kenya's top 10 national schools. This comprehensive, well-organized compilation reflects national standards, offering high-quality practice to boost student readiness, confidence, and performance in upcoming final KCSE exams.*

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*For Marking Schemes*

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**ALL THE BEST! SUCCESS!**

**KCSE 2025 TOP SCHOOLS' PREDICTIONS****EXPECTED EXAM 1**

443/1

**AGRICULTURE****PAPER 1****TIME: 2 HOURS**

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

*Kenya Certificate of Secondary Education.***INSTRUCTIONS TO CANDIDATES**

1. Write your name and admission number in the spaces provided above.
2. Sign and write date of examination in spaces provided.
3. This paper consists of three sections A, B and C.
4. Answer all questions in section A and B and any other two questions in section C.
5. Candidate must answer the questions in English.
6. All answers should be written in spaces provided.

**FOR EXAMINER'S USE ONLY**

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATE SCORE
A	1-17	30	
B	18-21	20	
C	22-24	40	
TOTAL		90	

**SECTION A (30marks)**

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

1. Give four aspects of rainfall that affect agricultural production. (2mks)
2. State four factors considered when choosing water pipes for use in the farm. (2mks)
3. List down four types of water erosion. (2mks)
4. Give three classes of weeds on the basis of growth cycle. (1½mks)
5. Define the term pest. (1mk)
6. State four reasons why burning of bushes is discouraged as a method of land clearing. (2mks)
7. Outline four factors considered when grading tomatoes. (2mks)
8. State four problems associated with marketing agricultural produce (2mks)
9. Give three maintenance practices carried out on water tanks. (1 ½ mks)
10. Give four characteristics of agroforestry trees (2mks)
11. Define the following terms. (2 mks)
  - (i) Nursery bed
  - (ii) Seed bed
  - (iii) Pricking out
  - (iv) Hardening off
12. List four financial documents used in the farm (2mks)
13. List down four factors of production. (2mks)
14. Name the parts harvested for each of the following crops. (1 ½ mks)
  - (a) Onions
  - (b) Carrots
  - (c) Coffee
15. Name four main methods of controlling pests in the farm. (2mks)
16. Mention three ways of applying water to crops (1 ½ mks)
17. Differentiate between pomoculture and olericulture (1mk)

## SECTION B (20 Marks)

Answer ALL questions in this section

- 18.a) A farmer in Molo was advised to apply 80 kg of nitrogen to his maize plantation during top dressing. The fertilizer available was calcium ammonium nitrate (20% N) .Calculate the amount of this fertilizer in kilograms the farmer should **purchase** (2mks)
- b. At what stage should the farmer top dress his maize **crop** (1mk)
- c. **State** three methods of fertilizer **application** (3mks)

19. Below are common weeds. Use them to answer the questions that follow.



K



L



M



N

- a) Identify the weeds labelled K, L,M, N (2marks)

K.....

L.....

M.....

N.....

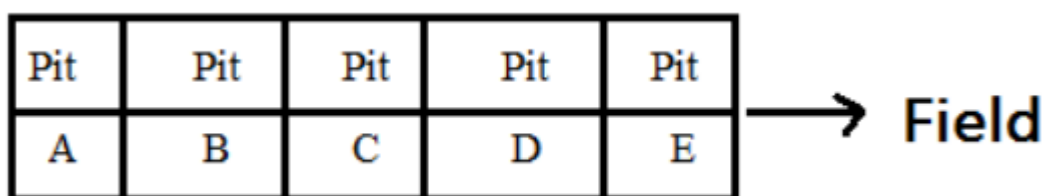
b) State the effect of the following weeds

i) K if fed to cows (1mark)

ii) L growing on a maize field (1mark)

c) Give a reason why weed M is difficult to control (1mark)

20. Study the illustration below of making compost manure and answer the questions that follow.

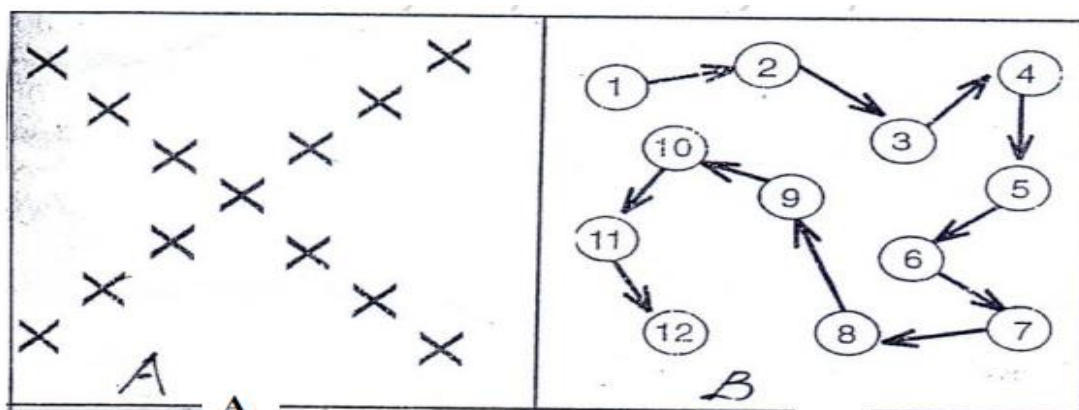


(a) Name the method of making compost manure illustrated above. (1mk)

(b) Name the other method of making compost manure. (1mk)

(c) State three qualities of well decomposed compost manure. (3mks)

21. The following diagrams illustrate two methods of soil sampling. Study them and answer questions that follow .



(a) What do diagrams A and B represent? (2 marks)

A.....

B.....

(b) Describe the procedure of soil sampling. (3 marks)

**SECTION C (40mks)****Answer only two questions in this section**

- 22.** (a) Describe seven cultural or biological methods of soil and water conservation. **(7 marks)**  
(b) Describe the importance of keeping farm records . **(7 marks)**  
(c) Explain six objectives of the million acre scheme of land settlements. **(6 marks)**
- 23[a]** Describe the growing of dry bean seeds under the following sub headings.  
(i) Selection and preparation of planting materials. **(3marks)**  
(ii) Planting. **(4marks)**  
(iii) Weeding. **(3marks)**  
(b) Describe the environmental conditions that may lead to low crop yields **(10 marks)**
- 24. (a)** Explain seven factors that influence seed rate in crop production. **(7mks)**  
(b) Outline seven safety precautions observed when using herbicide in the farm. **(7mks)**  
(c) Explain briefly any six factors that affect the quality of hay a farmer may produce in the farm. **(6mks)**



**KCSE 2025 TOP SCHOOLS' PREDICTIONS****EXPECTED EXAM 1**

443/2

**AGRICULTURE****PAPER 2**

TIME: 2 HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

*Kenya Certificate of Secondary Education.***INSTRUCTIONS TO CANDIDATES:**

- Write your **name** and **index number** in the spaces provided.
- **Sign** and **write the date** of examination in the spaces provided
- This paper consists of three section **A,B** and **C**
- Answer all questions in section **B** and **C**
- Answer any two questions in section **C**
- All the questions should answered in the spaces provided

**FOR EXAMINERS USE ONLY**

SECTION	QUESTIONS	MAX SCORE	CANDIDATES SCORE
A	1-13	30	
B	14-17	20	
C	18-20	20	
		20	
TOTAL SCORE		90	

**SECTION A (30marks)**

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

1. (a) Name the causative organisms of pneumonia in calves (1mks)  
(b) State **two** symptoms of pneumonia in calves (2mks)  
(c) Give **two** ways of controlling pneumonia in calves (2mks)
2. (a) Which tool will be required for the following farm operations?  
(i) Cutting wool sheep (1mk)  
(ii) Castrating piglets (1mk)  
(b) Give **four** reasons why feeding of colostrums is important in rearing of piglets. (2mks)
3. Give **three** conditions under which a farmer may prefer to use an Ox-cart instead of a tractor drawn trailer? (3mks)
4. Give **four** factors that should be considered when siting a beehive in a farm (2mks)
5. State **four** management practices that would ensure maximum harvest of fishing from fishpond (2mks)
6. Give **two** predisposing factors to foot-rot diseases in sheep (2mks)
7. What is the intermediate host for liver fluke? (1mk)
8. Give **two** causes of soft shells in eggs (1mk)
9. List **four** factors associated to the animal that determines the amount of feed animals consumed (2mks)
10. Give **four** reasons why young rams should be docked. (2mks)
11. List **four** cattle diseases caused by virus (2mks)
12. State any **two** disadvantages that may arise from in breeding in livestock production (2mks)
13. Give **two** signs that would show that a doe is just about to give birth (2mks)



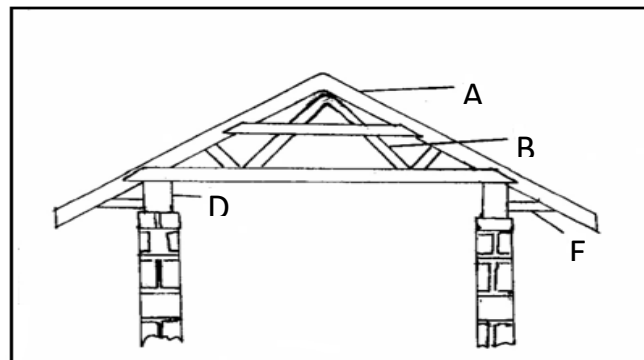
**SECTION B (20MARKS)**

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

**21.** The diagram **below** represents conditions of a tractor tyre.

**E****F****G**

- (a) Which diagram represents the correct pressure in a tractor tyre? **(1 mark)**  
 (b) Identify the mistakes with the other two tyres. **(2 marks)**  
 (c) Give the correct measures taken for each tyre mentioned in (b) above. **(2 marks)**
- 22.** Study the diagram **below** of a farm structure.

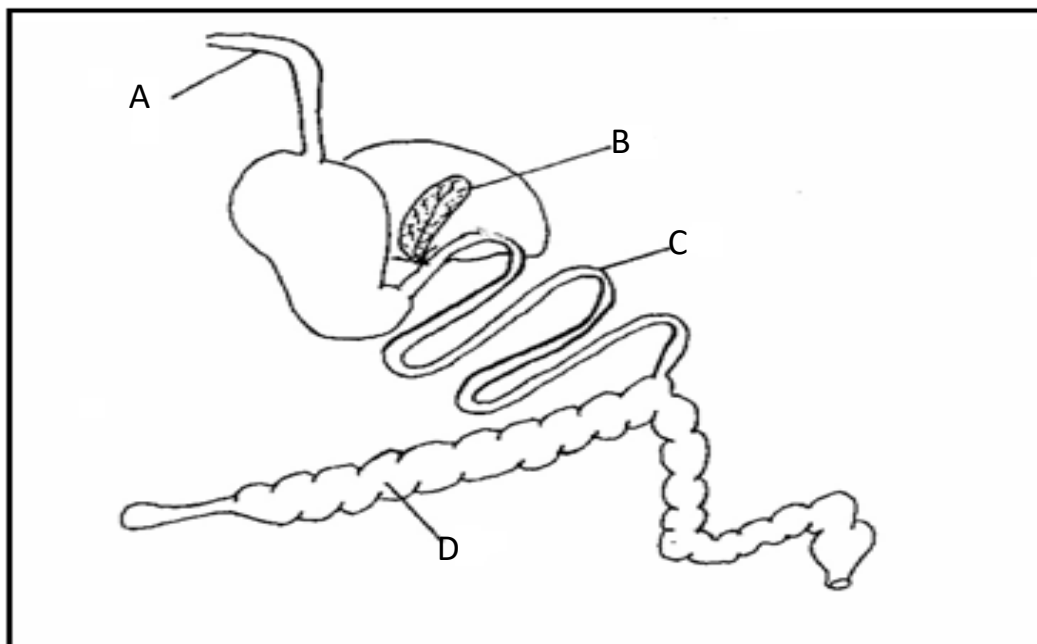


- (a) Identify the structure **above**. **(1 mark)**  
 (b) Name the parts labeled A,B,C,D **(4 marks)**
- 23.** Study the tools **below** and answer the questions **below**.

**W****X****Y**

- (a) Identify the tools. **W,X,Z** **(3 marks)**  
 (b) What are the functions of tools each Z,X? **(2 marks)**

24. Study the diagram below then answer the questions that follow.



(i) Name **one** farm animal which has the above digestive system. (1 mark)

(ii) Label the following parts. (2 marks)

A .....

B .....

(iii) Give the functions of each of the parts named (2 marks)

C .....

D .....

### SECTION C

Answer any TWO questions in this section in the spaces provided

25.(a) Give the differences between a petrol and a diesel engine (10mks)

(b) Describe the daily maintenance of a tractor (10mks)

26.(a) What are disease predisposing factors? (2mks)

(b) State **five** disease predisposing factors in livestock (5mks)

(c) State **five** predisposing factors of mastitis in dairy cattle (5mks)

(d) Explain any **four** general methods of disease control in livestock (8mks)

27. Discuss the management of layers from day old up to point of lay in a deep litter system.

(20mks)

**KCSE 2025 TOP SCHOOLS' PREDICTIONS****EXPECTED EXAM 2**

443/1

**AGRICULTURE****PAPER 1**

TIME: 2 HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

*Kenya Certificate of Secondary Education.***INSTRUCTIONS TO CANDIDATES**

- a) This paper consists of three sections, **A, B** and **C**. Answer all questions in sections **A** and **B** and any two questions in section **C**.
- b) All answers be written in the spaces provided after every question.
- c) Candidates should write their names and index numbers in the spaces provided above.

**For Examiner's Use Only**

Section	Question	Maximum Score	Candidates Score
<b>A</b>	<b>1 -17</b>	<b>30</b>	
<b>B</b>	<b>18 -21</b>	<b>20</b>	
<b>C</b>		<b>20</b>	
		<b>20</b>	
		<b>90</b>	

**SECTION A (30 Marks)**

Answer all questions in this section in the spaces provided.

- 1 Differentiate between pastoralism and nomadic pastoralism. (1mk)
2. Give four reasons for sub-soiling. (2mks)
3. State four advantages of drip irrigation. (2mks)
4. Give three farming practices that will lead to pollution of water. (1 ½ mks)
5. Outline four factors that influence quality of compost manure. (2mks)
- 6 (a) what is opportunity cost as used in agricultural economics? (1mk)
- (b) State two conditions under which opportunity cost is said to be Zero. (1mk)
7. Differentiate between under sowing and over sowing as used in pasture in production. (1mk)
8. State four disadvantages of broadcasting in crop production. (2mks)
9. Give four objectives of settlement schemes in Kenya soon after independence. (2mks)
- 10 (a) Name three types of legume trees used as a fodder. (1 ½ mks)
- (b) Give four reasons for top-dressing pasture. (2mks)
11. Name three insect pests of cabbages. (1 ½ mks)
12. Give three importance of Agricultural Society of Kenya (A.S.K). (1 ½ mks)
- 13 (a) State two reasons for carrying out agroforestry on a river – bank. (2mks)
- (b) Give four ways in which agroforestry seeds are prepared after collection in readiness for planting. (2mks)
14. Give two reasons for processing agricultural produce. (1mk)
15. State two functions of calcium in the soil. (1mk)
16. List four methods of applying fertilizers in crops. (2mks)
17. Give two reasons for cutting back in pyrethrum production. (1mk)

**SECTION B (20 Marks)**

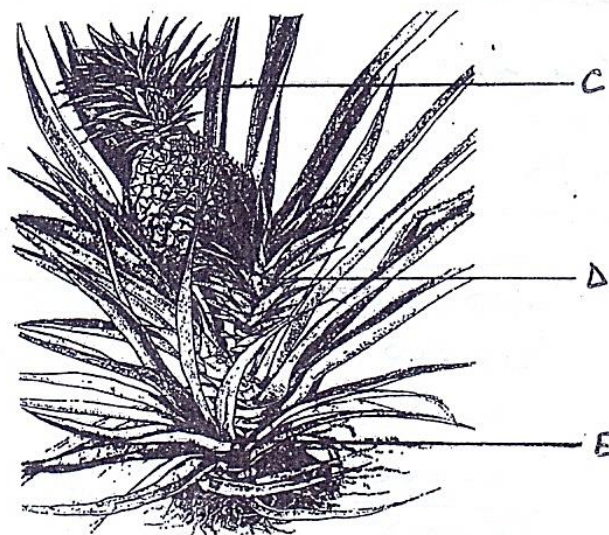
*Answer all questions in this section in the spaces provided.*

**18.** The diagrams below shows two weeds labeled **A** and **B**. Study them and answer questions that follow.



- (a) Identify the weeds labeled **A** and **B**. (1mk)
- (b) Give one reason why the weed labeled **A** is referred to as a parasitic weed. (1mk)
- (c) Name two crops that the weed illustrated **A** above commonly attack. (1mk)
- (d) Give one reason why it is very difficult to control weed labeled **B**. (1mk)
- (e) State one cultural method of controlling weed labeled **A**. (1mk)

**19.** The diagrams below illustrate a pineapple plant. Study it carefully and answer the questions that follow.



- (a) Name the parts of propagating pineapple labeled **C**, **D** and **E**. (1 ½ mks)
- (b) (i) Which of the vegetative material is more suitable for propagation? (½mk)
- (ii) Give a reason for your answer above. (1mk)
- (c) State three advantages of vegetative propagation. (1 ½ mks)

**20.** The following information was extracted from Mr. Njengas farm records on 31/12/2018. Use the information to answer the questions that follow.

Description	Kshs
Five year bank loan	400,000
One year loan with AFC	200,000
Creditors	45000
Debtors	20000
Land	600000
Buildings	420000
Dairy cattle	180000
Dairy meal	10000
Cash in hand	35000

Prepare a balance sheet of Mr. Njengas farm.

(5mks)

(a) Was Mr. Njengas business solvent or insolvent?

(1mk)

21. An experiment was carried out to investigate soil constituents as described below.

(i) A 250 cm<sup>3</sup> measuring cylinder was filled with water to 100cm<sup>3</sup> mark.

(ii) A 100cm<sup>3</sup> beaker was filled with garden soil up to brim.

(iii) The soil was emptied into one measuring cylinder and shook well.

(iv) The final volume was 150cm<sup>3</sup>.

(a) What was lost when the 100cm<sup>3</sup> garden soil was poured to 100cm<sup>3</sup> of water in the measuring cylinder?

(1/2mk)

(b) Calculate one percentage content of the soil constituents investigated in the experiment. (2mks)

(c) Give two importance of the substance lost above in the soil.

(2mks)

### SECTION C (40 Marks)

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

22 (a) Describe the production of beans under the following sub-headings

(i) Field preparation

(3mks)

(ii) Planting

(3mks)

(iii) Field management practices

(5mks)

b) Outline the procedure of harvesting sugarcane.

(5mks)

23 (a) Explain five land tenure systems practiced in Kenya.

(10 mks)

b) Describe ten functions of agricultural marketing in Kenya.

(10 mks)

24 (a) Explain five farming activities which may encourage soil erosion.

(10 mks)

b) Explain five factors determining stage and time of harvesting crops.

(10 mks)



**KCSE 2025 TOP SCHOOLS' PREDICTIONS****EXPECTED EXAM 2**

443/2

**AGRICULTURE****PAPER 2****TIME: 2 HOURS**

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

*Kenya Certificate of Secondary Education.***INSTRUCTIONS TO CANDIDATES:**

- Write your name and index number in the spaces provided above.
- Sign and write the date of examination in the spaces provided above.
- This paper consists of three sections A, B and C.
- Answer **all** the questions in section A and B.
- Answer any **two** questions in section C.

**For Examiner's Use Only:**

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATES SCORE
A	1-19	30	
B	20-23	20	
C		20	
		20	
	<b>TOTAL SCORE</b>	<b>90</b>	

**SECTION A (30 MARKS)**

1. Give the meaning of the following terms as used in livestock health. (1mk)
  - a) Incubation period
  - b) Mortality rate.
2. State **four** physical characteristics of a dairy cow. (2mks)
3. Name the **two** different types of rabbit houses. (1mk)
4. What is the role of a footbath in a poultry house? ( $\frac{1}{2}$  mk)
5. State **four** care and maintenance practices carried out on a tractor water cooling system. (2mks)
6. State **four** factors that affect the digestibility of a feed. (2mks)
7. Give **four** factors that should be considered when siting a beehive on the farm. (2mks)
8. Name the complementary tool for each of the tools named below: (2mks)
  - a) Trochar .....
  - b) Hand drill .....
  - c) Elastrator.....
  - d) Bull ring.....
9. State **four** advantages of embryo transplant when breeding livestock. (2mks)
10. Give **two** reasons why sows may eat piglets immediately after farrowing. (1mk)
11. State **three** reasons for docking in rams. ( $1\frac{1}{2}$  mks)
12. Name **four** components of a building truss. (2mks)
13. Differentiate between **strategic** and **tactical** treatment as used in the control of endoparasites. (1mk)
14. Name **four** diseases in poultry that are controlled by vaccination. (2mks)
15. List **four** vices that may be developed by birds kept under total confinement. (2mks)
16. Give **three** reasons for steaming up an in-calf heifer. ( $1\frac{1}{2}$  mks)
17. State **four** factors that influence the respiration rate in livestock. (2mks)
18. Name **three** dual purpose breeds of sheep. ( $1\frac{1}{2}$  mks)
19. Give **two** reasons why proper nutrition is important in livestock health. (1mk)

**SECTION B (20MARKS)**

20. The diagrams below illustrate ectoparasites. Study them and answer the questions that follow.



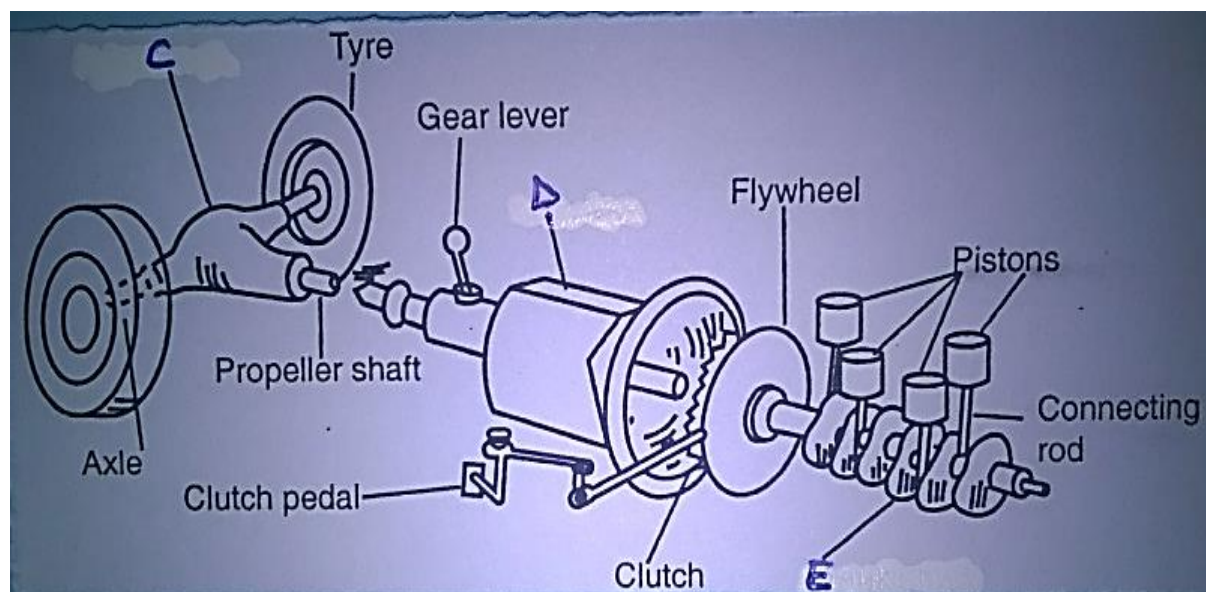
A



B

- a) Identify the parasites labelled A and B. (1mk)
- b) Name the livestock affected by the parasite labelled A. (1mk)
- c) State **two** harmful effects of parasites A and B in livestock production. (2mks)

21. Below is a diagram of the power transmission system of a tractor engine. Study it and answer the questions that follow.



- a) Name the parts labelled C, D and E. (3mks)
  - b) State the functions of parts C, D and E. (3mks)
22. a) Outline the procedure of castrating a male piglet. (4mks)
- b) At what age should the male piglet be castrated? (1mk)

23. Study the tools below and answer the questions that follow.



F



G



H



I

a) Identify the tools labelled F, G, H and I. (2mks)

b) Give the uses of each of the tools labelled H and I. (2mks)

H.....

I.....

c) Name the part of the animal where tool F is placed when in use. (1mk)

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

24. a) Explain the management practices that a farmer should carry out to improve milk production in a low dairy herd. (10mks)

b) Describe the rearing of one day old chicks to 8 weeks. (10mks)

25. a) Describe coccidiosis disease under the following sub-headings:

- i. Causal organism (1mk)
- ii. Pre-disposing factors. (3mks)
- iii. Symptoms. (4mks)
- iv. Control measures. (2mks)

b) Describe **five** parts of a piggery unit. (10mks)

26. a) Give **five** functions of water in livestock. (5mks)

b) State and explain **five** essentials of clean milk production. (10mks)

c) Give **five** operational differences between a disc pough and a mouldboard plough. (5mks)

**KCSE 2025 TOP SCHOOLS' PREDICTIONS****EXPECTED EXAM 3**

443/1

**AGRICULTURE****PAPER 1**

TIME: 2 HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

*Kenya Certificate of Secondary Education.***INSTRUCTIONS TO CANDIDATES:**

- (a) Write your name and index number in the spaces provided above.
- (b) Sign and write the date of examination in the spaces provided above.
- (c) This paper consists of **THREE** Sections **A**, **B** and **C**.
- (d) Answer all questions in Section **A** and **B**.
- (e) Answer two questions in Section **C** in the spaces provided.

**FOR EXAMINER'S USE ONLY**

Section	Question	Maximum Score	Candidates Score
A	1 - 21	30	
B	22 - 26	20	
C	27 - 29	20	
		20	
Total Score		90	



**SECTION A: (30 MARKS)**

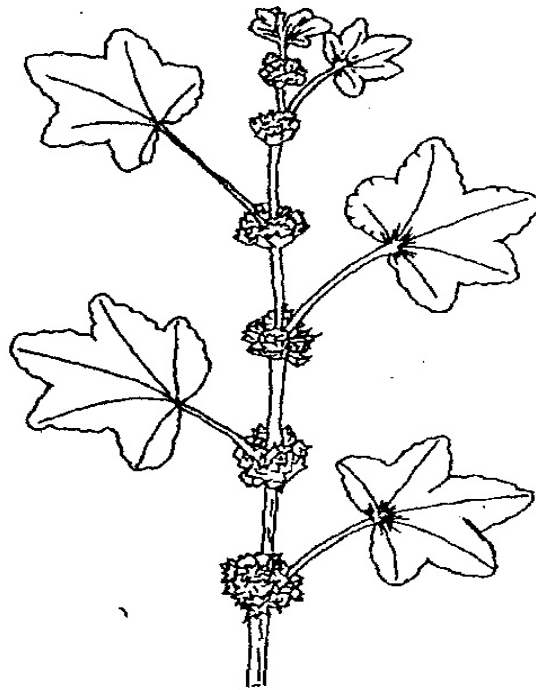
*Answer ALL questions in this section*

1. Name **three** forms of horticulture farming. (1½mks)
2. Name any **two** factors which influence soil colour. (1mk)
3. Give **three** reasons why Agricultural produce should be processed. (1½mks)
4. List **two** qualities that enable sorghum to be drought resistant. (1mk)
5. State **three** entries that are made in a journal. (1½mks)
6. List **two** features of plastic pipes a farmer should consider before buying. (1mk)
7. State **three** reasons for top dressing pasture. (1½mks)
8. State **three** environmental conditions that may lead to low crop yields. (1½mks)
9. Give **three** indicators of well decomposed manure. (1½mks)
10. State **three** functions of plastic materials when used as mulch in crop production. (1½mks)
11. Differentiate between gross domestic product and per capita income. (2mks)
  - (a) Gross domestic product .  
Per capital income.
12. Give **two** reasons why bush burning is discouraged during land preparation. (1mk)
13. State **three** causes of blossom end rot disease in tomato crop. (1½mks)
14. State **three** desirable characteristics of agroforestry trees a farmer would consider before planting in the farm. (1½mks)
15. Name **four** items that a maize farmer can enter into his consumable inventory records. (2mks)
16. State any **three** aims of land settlement programmers in Kenya. (1½mks)
17. List **two** ways in which soil of  $P^H 3$  can be raised to  $P^H 6.5$ . (1mk)
18. Differentiate between hybrid and composite as used in crop breeding. (2mks)
  - (a) Hybrid.
  - (b) Composite
19. State **two** possible causes of wilting in tomato plants despite adequate water supply. (1mk)
20. Name the form in which the following nutrients are absorbed by plants. (1½mks)
  - (i) Calcium
  - (ii) Sulphur
  - (iii) Molybdenum
21. List **three** farming practices done to reduce water stress in crop production. (1½mks)

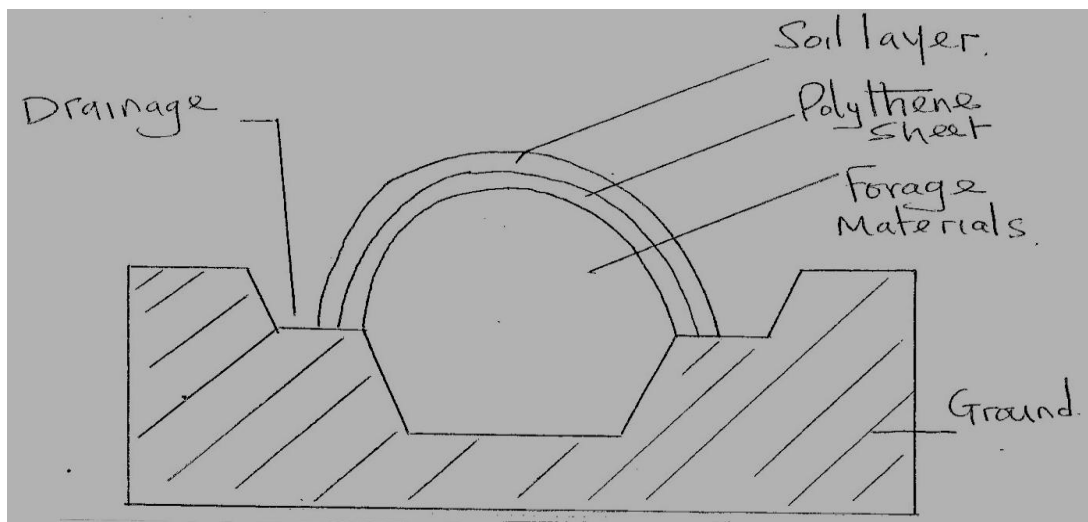
**SECTION B: (20 MARKS)**

*Answer all the questions in this section*

22. Below is a diagram of a Common East African Weed.



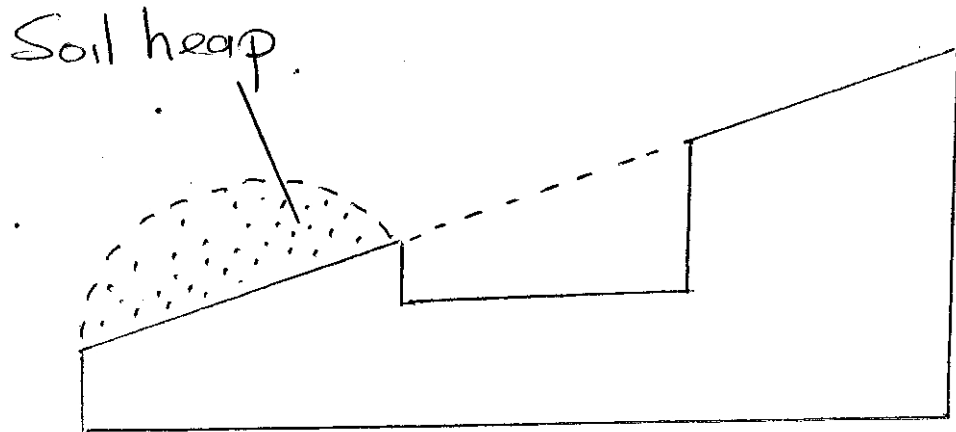
- (i) Identify the weed illustrated above. (1mk)
- (ii) Give **one** harmful effect of the weed illustrated above to livestock. (1mk)
- (iii) State **two** methods of controlling the weed illustrated above. (2mks)
23. The diagram **below** shows a method of forage preservation.



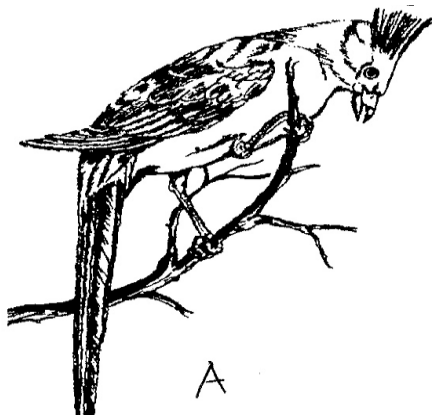
- (i) Identify the structure illustrated above. (1mk)
- (ii) State the form in which forage is conserved as illustrated above. (1mk)
- (iii) Give the role of the following in the structure above. (2mks)

- (a) Polythene sheet.
- (b) Drainage

24. The illustration **below** represents a form of physical measures in conservation soil and water. Study it carefully and answer the questions that follow.



- (a) Identify the illustration above. (1mk)
  - (b) Describe how the above physical measure conserves soil and water. (2mks)
  - (c) Name **two** other physical measures that can be used to conserve water. (1mk)
25. Study the diagram **below** carefully and answer the questions that follow.



A



B

- (a) Identify the field pest shown in the illustration **A** and **B** above. (2mks)
  - A -
  - B -
- (b) State **two** effect the pest expressed in **A** above has on maize plant. (2mks)

26. A livestock farmer in Kirinyaga can rear dairy cattle, beef cattle or sheep. If the farmer undertakes each of the enterprises at a time, he is likely to get returns as follows:

Dairy cattle Kshs.70,000

Beef cattle Kshs.65,000

Sheep farming Kshs.75,000

- (a) From the information given which enterprise the farmer should choose? (1mk)  
 (b) Give a reason for your answer in (a) above. (1mk)  
 (c) What is the opportunity cost of undertaking the enterprise chosen in (a) above? (1mk)  
 (d) What is the importance of scarcity in agricultural production? (1mk)

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

*Answer any **two** questions from this section in the spaces provided after question 29.*

27. (a) The information below was extracted from the financial valuation of micro-farm at the end of the year 2007.

Item	Value in Ksh.
Dairy cattle	55,000.00
Maize in store	19,000.00
Buildings	126,000.00
Calves	5,000.00
Seven mature sheep	7,000.00
Land	260,000.00
Machinery	4,000.00
Cattle feed in store	4,000.00
Office equipments	1,400.00
Tools in	10,000.00

On the same DATE the farm had Ksh.50,000/- in the bank. KCC owed the farm 5,000/- for milk delivered, owed KFS 4,500/- for fertilizers, 5,000/- to Unga Limited for feeds delivered and labourers wages 12,000/-.

- (i) Draw up a balance sheet for the micro-farm as at 31<sup>st</sup> December 2007. (11mks)  
 (b) Is the farm solvent or insolvent? (1mk)  
 (ii) Describe the procedure of harvesting coffee. (4mks)  
 (iii) A farmer is supposed to apply a compound fertilizer 20:30:10 on a plot measuring 5m long and 4m wide at the rate of 200kg/ha.

- (a) What do the figures 20:30 stand for? (2mks)
- (b) Calculate the amount of fertilizer the farmer will require per plot. (2mks)
- Show your working.*

28. (a) The table **below** shows the production of maize at various level of NPK fertilizer application. Study it carefully and answer the questions that follow.

Land size in ha	Variable input NPK in kg	Total product maize in 90kg bags	Marginal product maize in 90kg bags	Average product maize in 90kg bags
1	50	10	10	10
1	100	27	A	F
1	150	42	15	14
1	200	56	B	14
1	250	63	7	12.6
1	300	65	C	G
1	350	65	D	9.3
1	400	60	-5	7.5
1	450	52	E	H
1	500	42	-10	4.2

- (i) Complete the above. (4mks)
- (ii) Using the graph paper provided draw a graph of total product, marginal product and average product against variable input on the same axis and mark the three zones of production. (7mks)
- (iii) With a reason identify the best zone of production. (2mks)
- (b) Give **two** varieties of sorghum grown in Kenya. (2mks)
- (c) Describe **five** effects of soil erosion. (5mks)
29. (a) Explain **seven** working principles of co-operative societies. (7mks)
- (b) Describe the procedure of whip grafting in citrus propagation. (5mks)
- (c) Describe **four** components of a well developed soil profile. (8mks)

**KCSE 2025 TOP SCHOOLS' PREDICTIONS****EXPECTED EXAM 3**

443/2

**AGRICULTURE****PAPER 2****TIME: 2 HOURS**

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

*Kenya Certificate of Secondary Education.***INSTRUCTIONS TO CANDIDATES***[a] Write your name and index number in the spaces provided above .**[b] Sign and write the date of examination in the spaces provided above .**[c] This paper consists of three sections : A ,B,C .**[d] Answer all the questions in Section A and B and any two questions in Section C**[e] All answers should be written in the spaces provided on the question paper .***FOR EXAMINERS USE ONLY**

SECTION	QUESTIONS	MAX.SCORE	CAND. SCORE
A	1-19	30	
B	20-23	20	
C	24 ,25 ,26	20	
	24 ,25 ,26	20	
<b>TOTAL SCORE</b>		90	



**SECTION A [30 MARKS]**

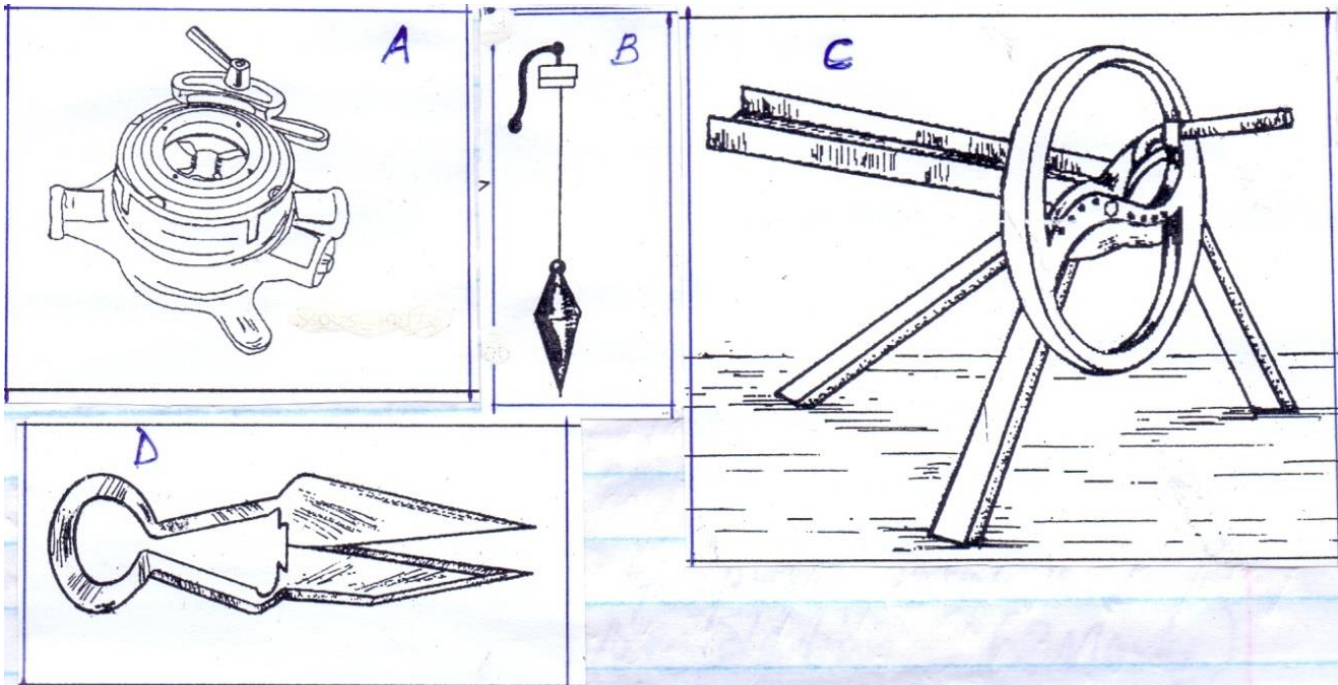
*Answer all the questions in this section in the spaces provided.*

- 1) Name four dairy breeds of goats. [2marks]
- 2) Give four characteristics of clean and high quality milk . [2marks]
- 3) Name two classes of livestock feedstuff. [1mark]
- 4) Give three systems of out breeding [1.5marks]
- 5) Give the pathogens that cause the following livestock diseases.  
[a] Anthrax [0.5marks]  
[b] Gumboro [0.5marks]
- 6) State two reasons for hoof trimming in livestock .[1mark]
- 7) Give four symptoms of Newcastle disease .[2marks]
- 8) State four management activities done to piglets immediately after parturition[2marks]
- 9) Give four pre disposing factors of mastitis in dairy cows. [2marks]
- 10) State four routine management practices carried out on a replacement stock that is a heifer. [2marks]
11. Outline two control measures of roundworms. [1mark]
12. Give two maintenance practices carried out on a barbed wire fence . [1mark]
- 13 [a] Name a pig breed that is purely black with a long back and drooping ears . [0.5mark]  
[b] Name four materials collected by bees. [2marks]
14. State four mechanical methods of controlling ticks [2marks]
15. Give two roles of ovaries in a cows reproductive system [1mark]
16. State four reasons that make keeping of rabbits popular. [2marks]
17. Give two roles of a bee drone. [1 mark]
18. State four management practices carried out in a deep litter system of poultry keeping [2marks]
19. Name two functions of a clutch in the tractors transmission system .[1mark]

**SECTION B [20MARKS]**

Answer all the questions in this section

20. The diagrams below represent some farm tools and equipment. Study them and answer the questions that follow.



[a] Identify the tools labeled A and B

[2mark]

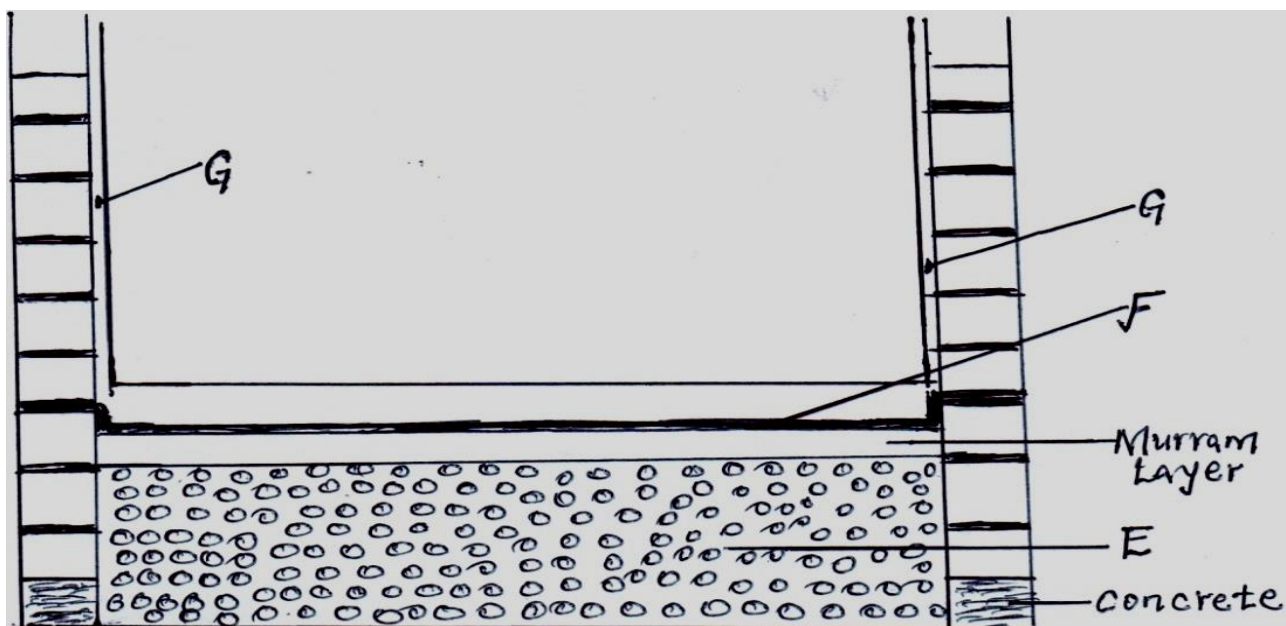
[b] State one use of each of the tools labeled C and D

[2mk.]

[c] Explain one maintenance practice carried out on tool D.

[1mk.]

21. The diagram below represents a foundation of a farm structure. Study it and answer questions that follow.



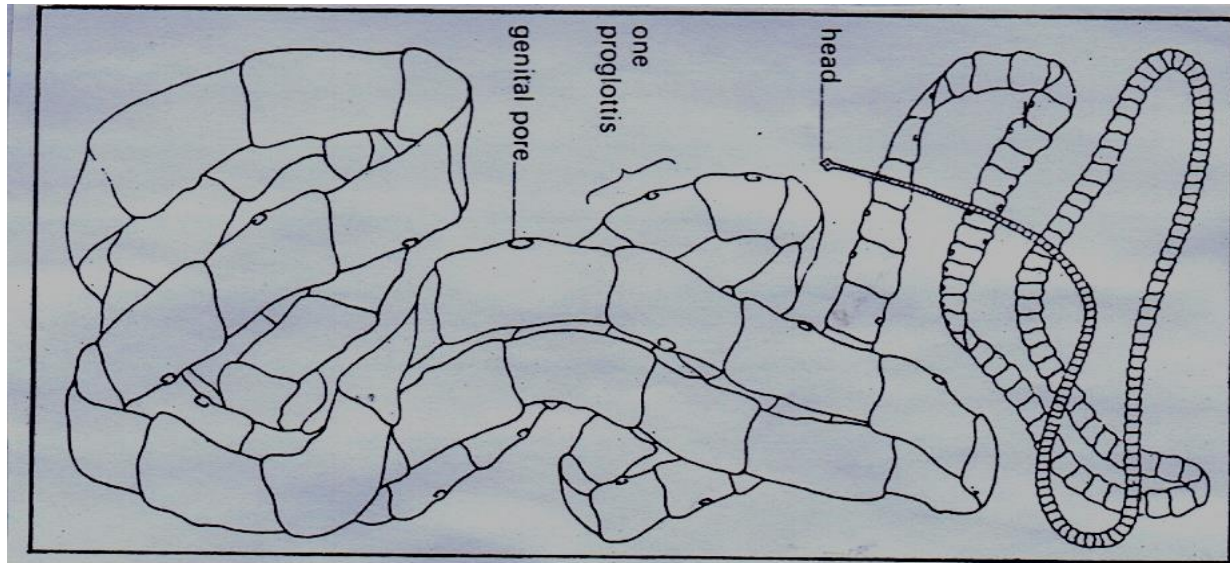
[a] Identify the parts labeled E and F.

[2mk.]

[b] State two uses of part labeled F in a foundation structure . [2mks.]

[c] What ingredients are used to complete part G . [1mk.]

22. The diagram below illustrates an internal parasite of livestock .

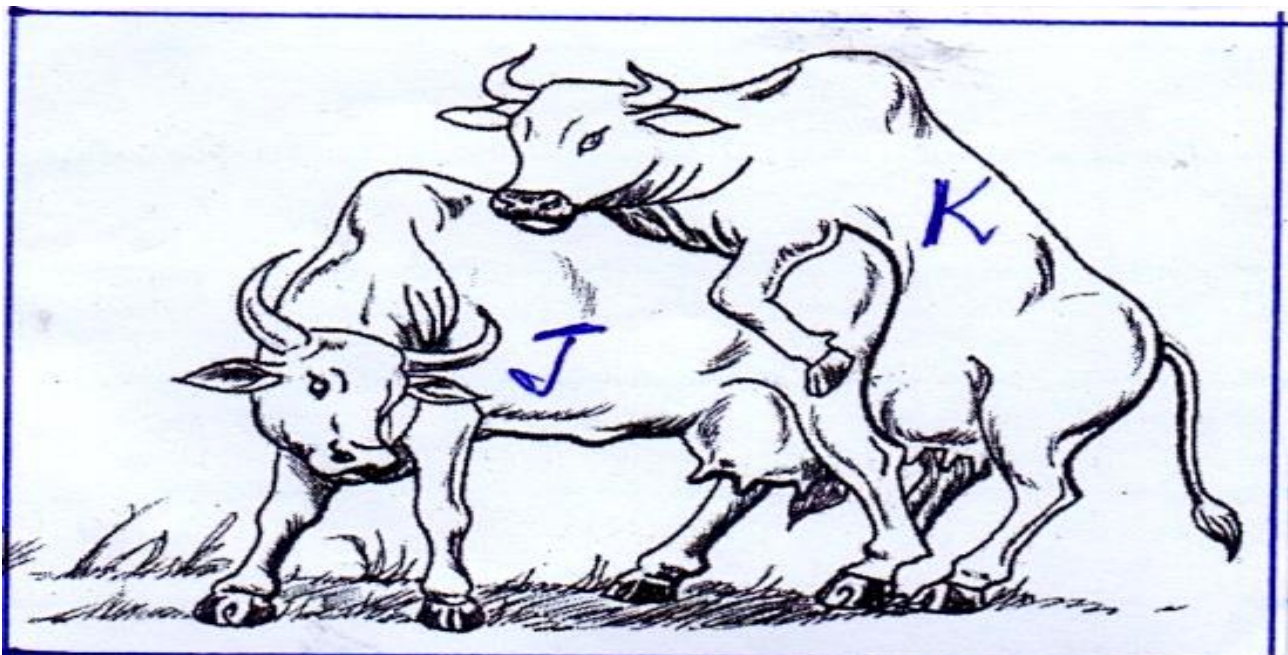


[a] Identify the parasite above . [1mk.]

[b] Name two common species of the parasite illustrated above . [2mks.]

[c] Give two control measures of the above parasite . [2mks.]

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



[a] Which of the above cows shows the signs of heat ? [1mk.]



[b] Give one reason to confirm your answer in [a] above.

[c] State two benefits of natural mating system . [2mks.]

[d] Name a disease that is easily spread by this method of mating . [1mk.]

### **SECTION C [40MARKS]**

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

**24. [a]** Describe six signs of furrowing in a sow . [6mks.]

[b] Explain six benefits of the Kenya top bar hive . [6mks.]

[c] Explain eight factors considered when siting farm structures . [8mks.]

**25. [a]** Describe rinderpest disease under the following sub headings .

Animals affected . [2marks]

Causal organism . [1 mark ]

Symptoms of attack . [ 5 marks]

Control measures . [2 marks ]

[b] Describe the digestion of food in poultry from the beak to the duodenum . [5marks]

[c] Explain five uses of solar energy in a farm . [5marks]

**26. [a]** Describe the working of a two stroke cycle engine . [10mks.]

[b] Explain five factors considered when siting a fish pond. [5mks.]

[c] Explain five reasons for swarming of bees. [5mks.]

# KCSE 2025 TOP SCHOOLS' PREDICTIONS

## **EXPECTED EXAM 4**

443/1

## **AGRICULTURE**

### **PAPER 1**

TIME: 2 HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

*Kenya Certificate of Secondary Education.*

### INSTRUCTION TO CANDIDATES

- (a) Write your **name** and **index** number and school, Sign and write the date in the spaces provided above.
- (b) This paper consists of **THREE** sections; **A**, **B** and **C**.
- (c) Answer **All** the questions in section **A** and **B** in the spaces provided and any **TWO** questions from section **C** in the answer sheet provided

### FOR EXAMINERS USE ONLY

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1 - 17	30	
B	18 - 22	20	
C		20	
		20	
TOTAL SCORE		90	

**SECTION A (30 MARKS)**

*Answer all the question in this section*

1. Name the routine field practice done by:
  - (a) Removal of extra suckers in banana stool. (1/2mrk)
  - (b) Removal of old stems down to level of top foliage in pyrethrum. (1/2mrk)
  - (c) Removal of suckers from coffee bushes. (1/2mrk)
2. State three characteristics of phosphate fertilizers. (1 1/2mks)
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. (1 1/2mks)
6. Give four advantages of overhead irrigation in crop production. (2mrks)
7. List three basic concepts in agricultural economics. (1 1/2mrks)
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. (1 1/2mrks)
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. (1 1/2mrks)
17. State four benefits of having a land title deed to a farmer. (2mrks)

**SECTION B. (20 MARKS)**

*Answer ALL questions in this section*



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



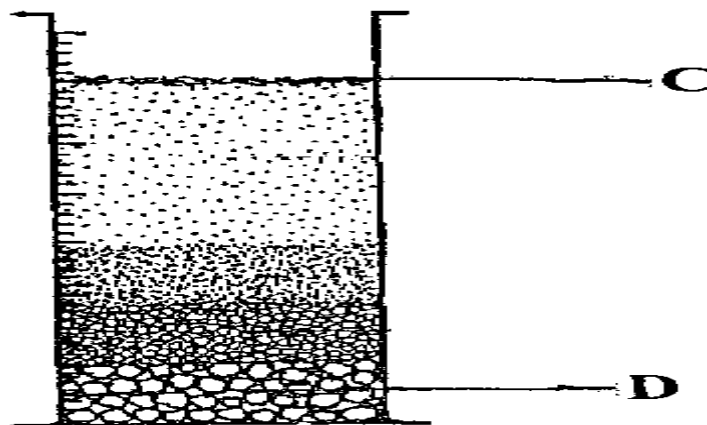
- (a) Name the crops propagated by illustrations: (2mrks)

A.....

B.....

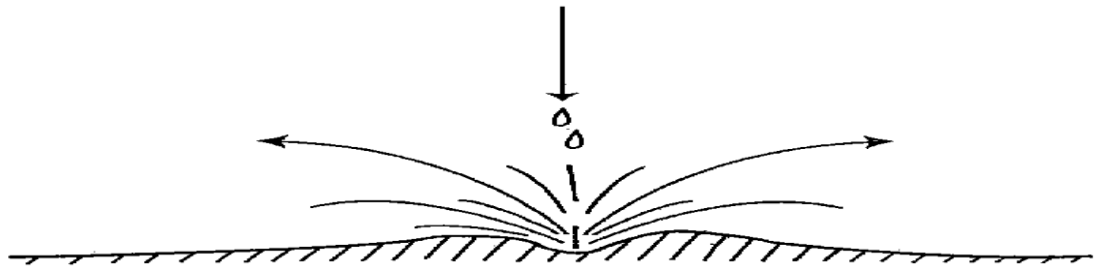
- (b) Give three factors that promote the rooting of illustration A. (3mrks)

- 19 The diagram below illustrates an experiment using garden soil. Study it carefully and answer the questions that follow.



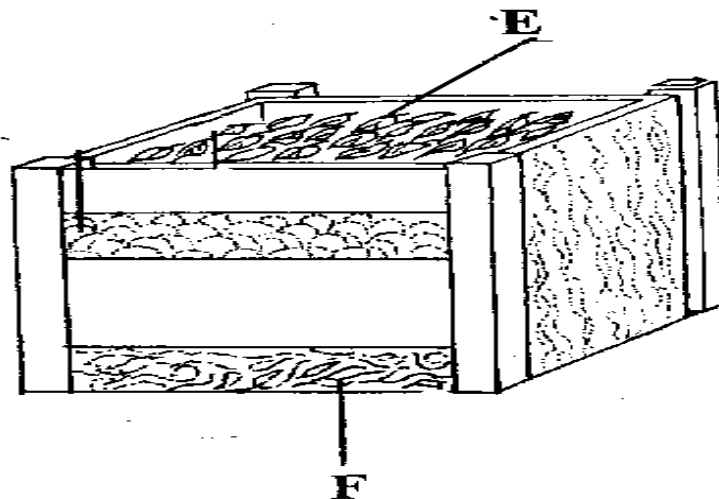
- (a) What was the aim of the experiment? (1mrk)
- (b) Name the parts labeled C and D. (2mrks)
- (c) Name the property of soil being investigated. (1mrk)

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*

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)**

**KCSE 2025 TOP SCHOOLS' PREDICTIONS****EXPECTED EXAM 4**

443/2

**AGRICULTURE****PAPER 2**

TIME: 2 HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

*Kenya Certificate of Secondary Education.***INSTRUCTION TO CANDIDATES**

- (a) Write your **name** and **index** number and school, Sign and write the date in the spaces provided above.
- (b) This paper consists of **THREE** sections; **A**, **B** and **C**.
- (c) Answer **All** the questions in section **A** and **B** in the spaces provided and any **TWO** questions from section **C** in the answer sheet provided

**FOR EXAMINERS USE ONLY**

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1 - 20	30	
B	21 - 24	20	
C	25-27	40	
TOTAL SCORE		90	

**SECTION A (30 MARKS)**

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

1. Explain the meaning of the following terms.

a. Raddling. (1/2mk)

b. Farrowing. (1/2mk)

c. Caponisation (1/2mk)

d. Gutting. (1/2mk)

2. What do the figures 3.3.3 in pig production stand for? (1mk)

3. Name any **two** tools in the farm that can be used to sharpen a blunt panga (1mk)

4. Name **two** livestock diseases prevented by use of the vaccine blanthrax. (1mk)

5. State any **four** mechanical methods of controlling ticks. (2mks)

6. List any **four** farm structures a dairy cattle farmer may have in the farm. (2mks)

7. State **two** disadvantages of using a barbed wire fence in sheep rearing. (1mk)

8. State **four** characteristics of an effective acaricide. (2mks)

9. State any **four** factors that affect the digestibility of feeds in an animal. (2mks)

10. Distinguish between mothering ability and prolificacy. (1mk)

11. State **four** characteristics of succulent roughage feedstuffs. (2mks)

12. State **four** advantages of inbreeding. (2mks)

13. Identify the breed of pig that has the following features.

-Broad and slightly dished snout.

- Has a white skin.

- Has upright ears.

Identity (1mk)

14. Name **two** methods used in castration of farm animals. (1mk)

15. State **four** causes of stress in poultry. (2mks)

16. List any **two** construction materials required in the construction of a green house. (1mk)

17. Name any **two** sheep breeds kept for production of meat. (1mk)

1. State how the following conditions are achieved in a calf pen.

a) Draught free. (1/2mk)

b) Proper lighting (1/2mk)

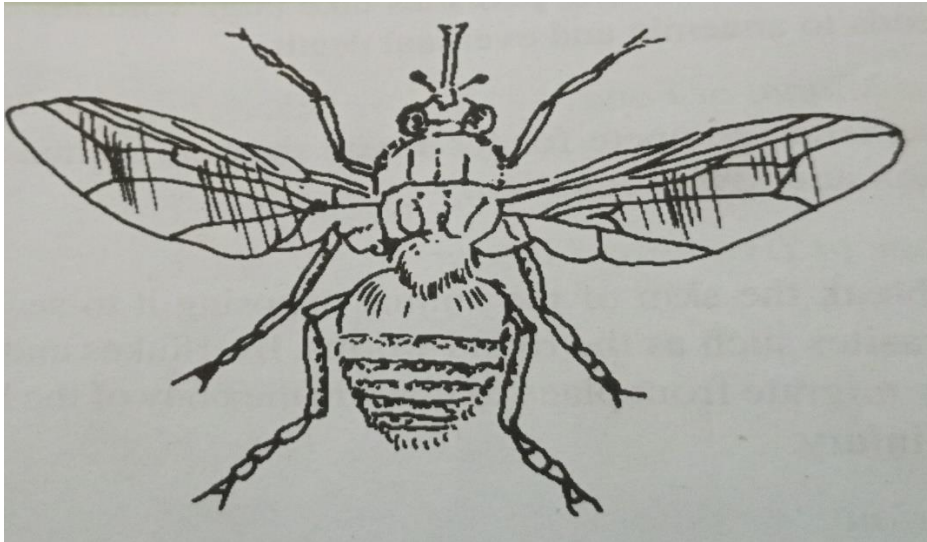
2. State the functions of the following parts of a plunge dip

- a) Drying yard. (1mk)  
b) Foot bath. (1mk)  
20. State **four** uses of a crush. (2mks)

### SECTION B 20 MARKS

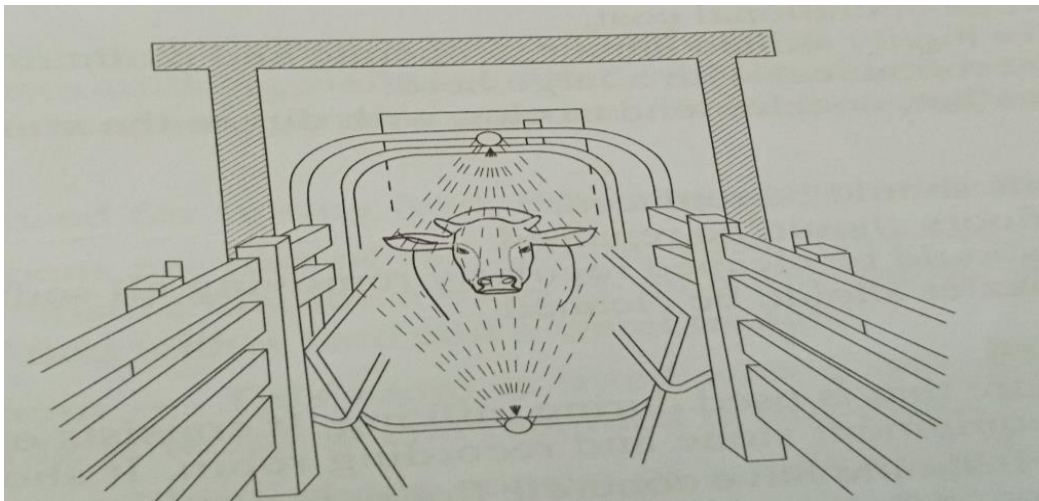
Answer all questions in this section in the spaces provided.

3. The diagram below represents an external parasite. Study carefully and use it to answer the questions that follow.



- a) Identify the parasite above. (1mk)  
b) State any **two** harmful effects of the parasite above. (2mks)  
c) State any **two** control measures for the parasite above. (2mks)

22. The diagram below shows a routine practice being carried out on an animal. Study it and answer the question that follows.



- a) Identify the practice. (1mk)

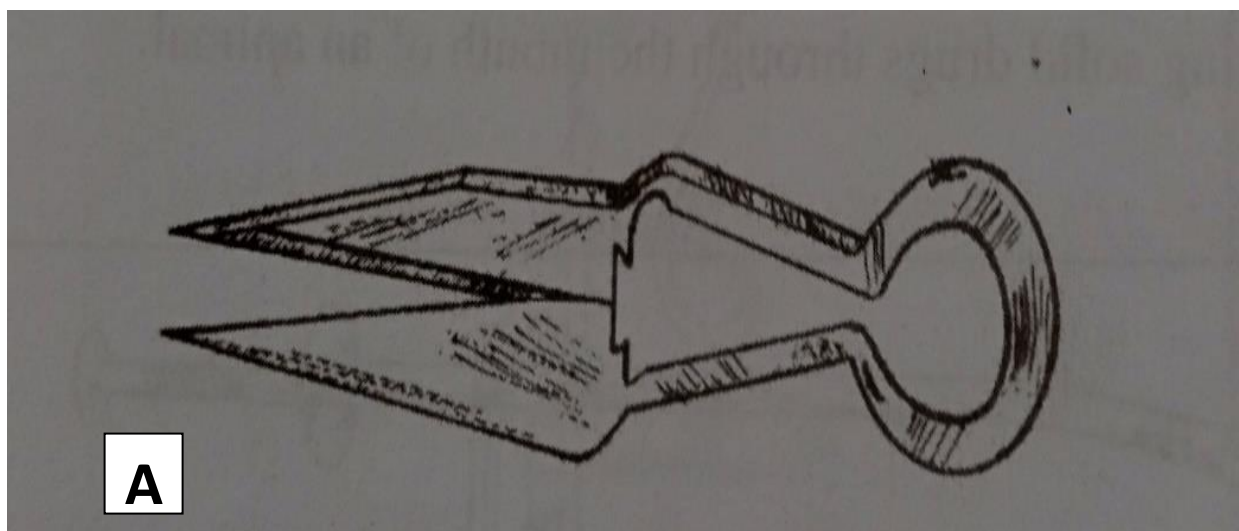


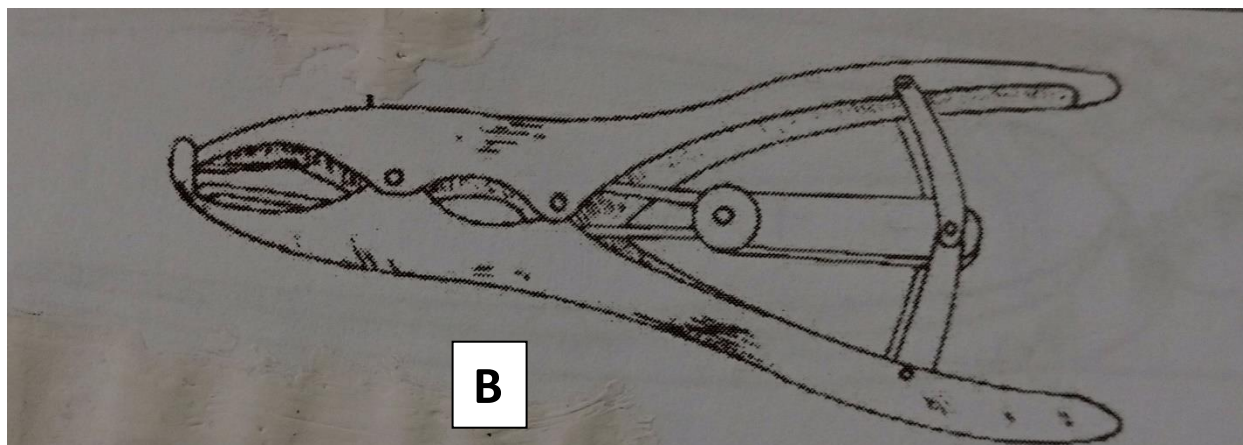
- b) Name the structure in which the practice is being carried out. (1mk)
- c) State three advantages of using the above structure instead of a plunge dip. (3mks)

23. Below is a diagram of a cow suffering from a deficiency disease. Study it and answer the questions that follow.



- a) Identify the disease the animal is suffering from. (1mk)
- b) State the cause of the disease. (1mk)
- c) List any **three** symptoms of the above disease. (3mks)
4. The diagram below represents farm tools and equipment. Study and answer the questions that follow.





- a) Identify the tools labeled A, and B. (2mks)
- b) State one use of each of the tools labeled A and B. (2mks)
- c) State one maintenance practice for the tool labeled A. (1mk)

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

#### **Answer any two questions in this section**

**25.a)** Discuss New castle disease under the following sub headings.

- (i) Causal organism. (1mk)
- (ii) Animals attacked. (1mk)
- (iii) Symptoms of attack. (5mks)
- (iv) Control measures. (3mks)
- b) Outline the characteristics of indigenous cattle breeds. (5mks)
- c) Describe **five** microbial activities that take place in the rumen of ruminant animals. (5mks)

**26.a)** State and explain any **five** predisposing factors of livestock diseases. (10mks)

- b) Describe the **procedure** of constructing a barbed wire fence. (5mks)
- c) Outline any **five** general functions of vitamins in livestock. (5mks)

**27.a)** Discuss any **five** essentials of clean milk production. (10mks)

- b) Describe the process of egg formation in the reproductive system of a hen. (10mks)

**KCSE 2025 TOP SCHOOLS' PREDICTIONS****EXPECTED EXAM 5**

443/1

**AGRICULTURE****PAPER 1****TIME: 2 HOURS**

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

*Kenya Certificate of Secondary Education.***INSTRUCTIONS TO CANDIDATES**

- Write your name and Index Number in the spaces provided above.
- Sign and write the date of examination in the space provided above
- This paper consists of *THREE* sections A, B and C.
- Answer *ALL* the questions in section in sections A and B.
- Answer any two questions from section C.
- All answers should be written in the spaces provided.

**FOR EXAMINER'S USE ONLY**

SECTION	QUESTION	MAXIMUM	CANDIDATES SCORE
A	1-15	30	
B	16-20	20	
C	21	20	
	22	20	
	23	20	

**SECTION A (30 MRKS)**

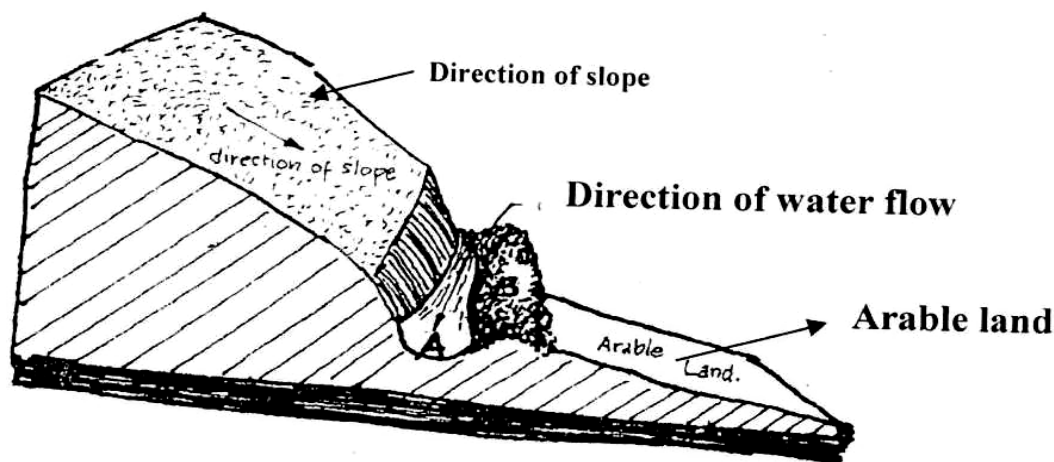
Answer ALL Questions

1. Differentiate between olericulture and pomoculture. (2mks)
2. Give **four** reasons why a well drained soil is suitable for crop production. (2mks)
3. State **four** reasons for deep ploughing during land preparation. (2mks)
4. Name **four** types of water pumps which can be used on the farm. (2mks)
5. State **four** characteristics that make a crop suitable for green manuring. (2mks)
6. List any **four** pieces of information which should be shown on Health record. (2mks)
7. Give **four** reasons for seed selection in crop production. (2mks)
8. List **five** management practices carried out on a kale nursery two weeks after its establishment. (2½mks)
9. Differentiate between rogueing and thinning. (2mks)
10. Name **three** diseases that attack cabbage. (1½mks)
11. State **four** ecological requirements of tomatoes. (2mks)
12. List **four** factors that will lower demand of a commodity. (2mks)
13. State **four** routine practices of care and management of trees. (2mks)
14. State **four** ways by which a farmer can make efficient use of a pasture crop. (2mks)
15. List **four** pieces of information found on a title deed. (2mks)

**SECTION B (20 MARKS)**

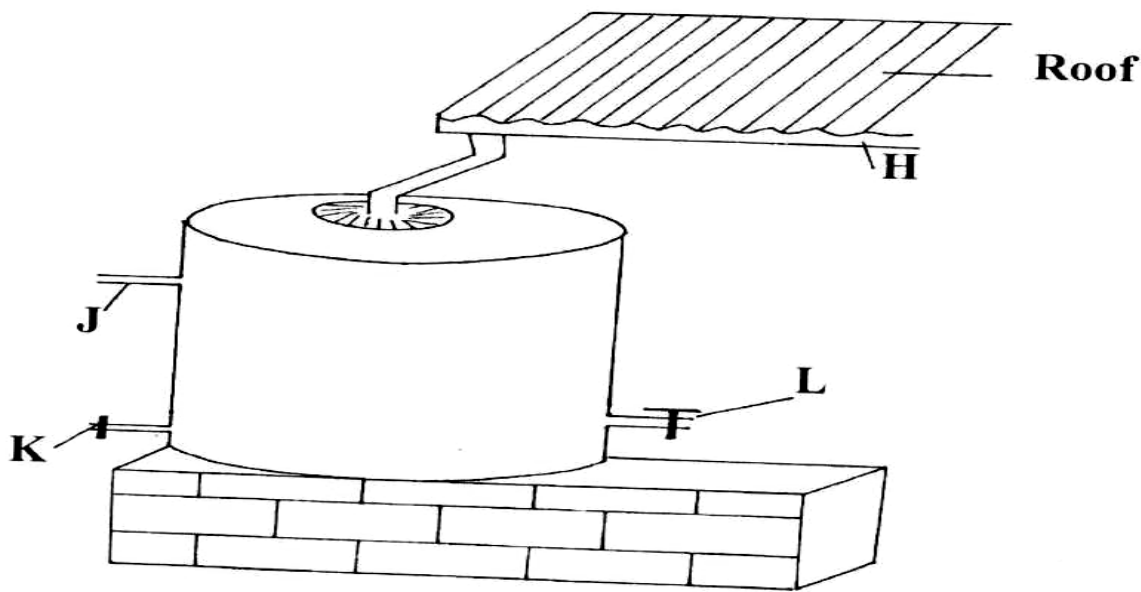
Answer all questions in the spaces provided in this section

16. The illustration below shows a newly constructed cut-off drain. Study it and answer the questions that follow.



- (a) (i) How can part of the structure labeled B be stabilized after it has been constructed? (1mk)
- (ii) Identify the part of the cut-off drain labeled A. (1mk)
- (b) Describe the procedure of constructing a cut-off drain. (2mks)

17. The diagram below shows a house water storage tank. Study it and answer the questions that follow.



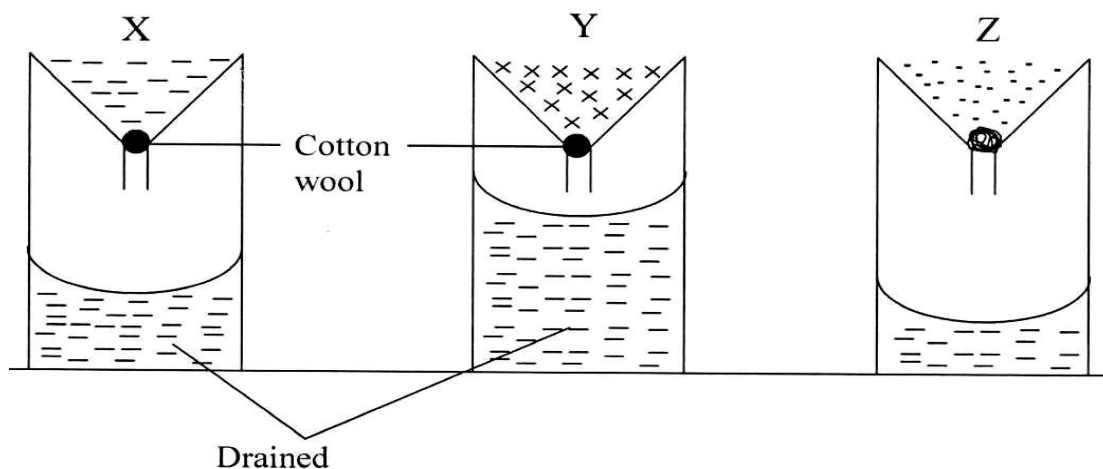
- (a) Identify the parts of the tank labeled:

H:..... (1mk)

K:..... (1mk)

- (b) Give the function of the part labeled J. (1mk)

18. The experiment below was set to compare the porosity and water holding capacity of three different types of soils.



(i) Identify the soils in each of the following funnels labelled. (1½mks)

X:.....

Y:.....

Z:.....

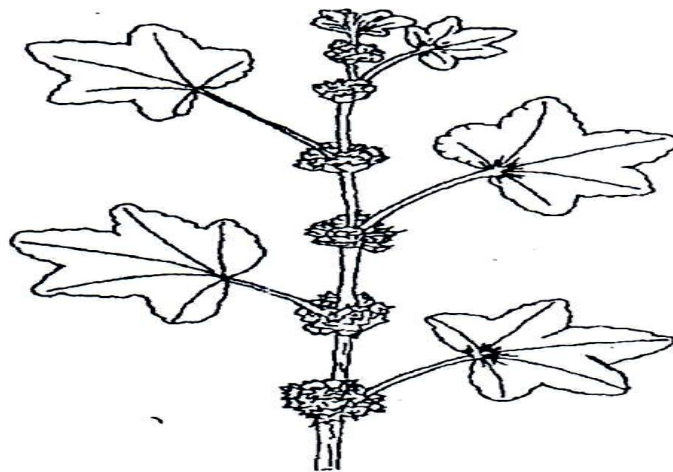
(ii) Which of the types of soil can be said to have the highest porosity rate? (½mk)

(iii) Give reasons for your answers in (ii) above. (2mks)

(iii) Which type of soil would be suitable for planting paddy rice? (1mk)

(iv) Explain your answer in (iv) above. (1mk)

19. Below is a diagram of a Common East African Weed.

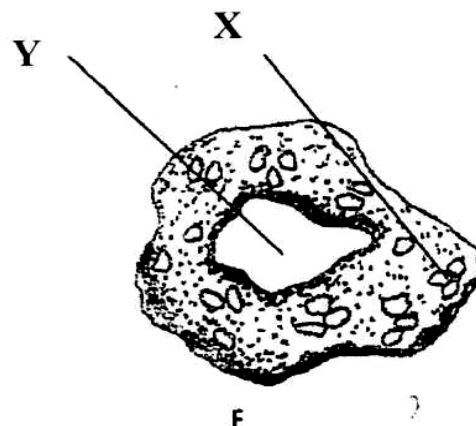
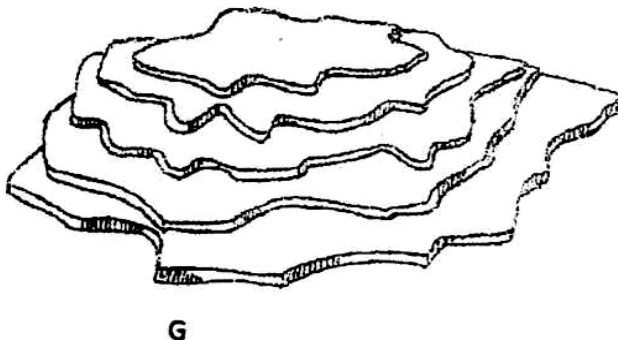


(i) Identify the weed illustrated above. (1mk)

(ii) Give one harmful effect of the weed illustrated above to livestock. (1mk)

(iii) State two methods of controlling the weed illustrated above. (1mk)

20. The diagrams below illustrate some soil structures. Study them and answer the questions that follow.





- (a) Identify the soil structures **F** and **G**. (1mk)
- (b) Name the part labeled **X** and **Y** in diagram **F**. (1mk)
- (c) State **two** ways through which structure **G** influence crop production. (2mks)

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

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

- 21. (i)** Describe the field production of irrigated rice under the following sub-headings:
- (a) Field preparation. (6mks)
- (b) Water control (3mks)
- (c) Field management (5mks)
- (ii)** Describe the precautions taken while harvesting:
- (a) Pyrethrum (3mks)
- (b) Tea (3mks)
- 22. (a)** Name **two** types of inventory records in the farm. (1mk)
- (b)** Explain **six** importance of farm budgeting. (6mks)
- (c)** The inventory for Kipsinende farm as at 01.06.2011

Kshs.

Cash at hand	5,000
Broilers	30,000
Maize in store	7,000
Calves	15,000
Dairy cattle	120,000
Buildings	75,000
Machinery	95,000
Land	200,000

On the same day, the following information was obtained from the farmers records

Kshs.

Interest payable	2,000
Cash in the bank	20,000
Taxes payable	750
Wages payable	5,600
Bank loan	213,000



Egg sales on credit	10,000
Milk sales on credit	13,000
Farm inputs purchased on credit	19,800
Vegetable sales on credit	5,000

**Required:** Prepare a balance sheet for the farm. (13mks)

**23. (a)** Outline the process of treating water for domestic use using chemical treatment system. (12mks)

**(b)** Explain five physical factors that increases the rate of soil erosion in a farm.(5mks)

**(c)** Explain how monoculture leads to loss of soil nutrients. (3mks)

**KCSE 2025 TOP SCHOOLS' PREDICTIONS****EXPECTED EXAM 5**

443/2

**AGRICULTURE****PAPER 2**

TIME: 2 HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

*Kenya Certificate of Secondary Education.***INSTRUCTIONS TO CANDIDATES**

- a) Write your name, school and index number in the spaces provided above  
b) Sign and write the date of examination in the spaces provided above.  
c) This paper consists of **three** sections **A, B** and **C**  
d) Answer **All** the question in section **A** and **B**  
e) Answer **ANY TWO** questions in section **C**

**FOR EXAMINER'S USE ONLY**

Section	Question	Maximum	Candidate's score
A	1-18	30	
B	19-22	20	
C		20	
		20	
	<b>TOTAL SCORE</b>	<b>90</b>	

**SECTION A***Answer All the Questions In This Section*

1. Name **two** dairy goat breeds found in Kenya. (1 Mk)
2. Outline **four** reasons for maintaining farm tools and equipment in good condition. (2 Mks)
3. Outline **two** predisposing factors of foot rot. (1 Mk)
4. Name **two** rules that should be observed when milking. (1 Mks)
5. Outline **two** duties of a worker bee in a colony of bees. (1 Mks)
6. Study the table below fill in the blanks to show the term used to refer to parturition and young ones of the following animals. (2 Mks)

Type of animal	Act of parturition	Term to refer to the young one
Cattle	Calving	Calf
Goats	.....	.....
pig	.....	.....

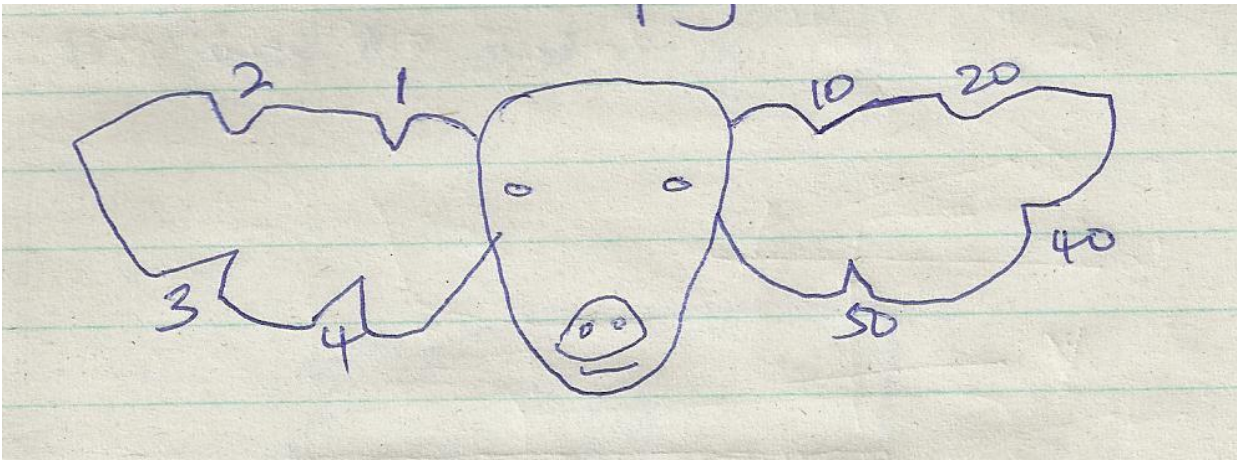
7. State **four** harmful effects of ticks. (2 Mks)
8. State **four** desirable factors to consider when siting a fish pond. (2 Mks)
9. Name the most appropriate tools used in the following operations
  - a) Removing metal chippings in file (1mrk)
  - b) Cutting wood along grains (1mrk)
  - c) Branding (1mrks)
10. State **four** characteristic of Boran cattle (2mrks)
11. Name **three** methods of out breeding in livestock production (1 ½ marks)
12. What do you understand by the following terms as used I animal production .
  - a) Caponisation (1mrk)
  - b) Bullock (1mrk)
  - c. Epistasis (1mrk)
13. State **four** control measures of a liver fluke in livestock. (2 marks)
14. What is “dry cow therapy” in dairy cattle management? (1/2 mark)
15. State **four** causes of stress in poultry. (2 marks)

16. Distinguish between mothering ability and prolificacy as used in livestock breeding. (1mks)
17. Name **two** sources of protein for livestock nutrition. (2 marks)
18. State **four** signs of parturition shown by a in calf cow. (2 marks)

### SECTION B ( 20 mks)

Answer All The Questions In This Section

19. The diagram below shows a certain practice carried out on pig



- a) Identify the practice illustrated above (1mrk)
- b) Draw another illustration depicting pig number 37 (1mrk)
- c) Name the tool used to carry out the practice illustrated above (1mrk)
- d) State two other method of identifying piglet (2mrks)
20. The diagrams below show some farm tools. study them and answer the question that follow.



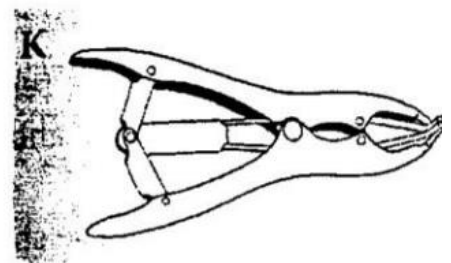
A



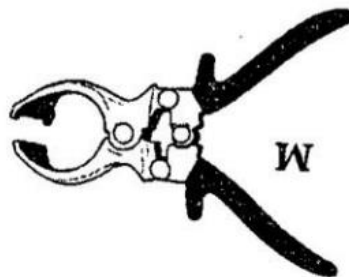
B



C



K



W

tools : (2mks)

a) Name the tools. (2 marks)

**A**.....

**B**.....

**C**.....

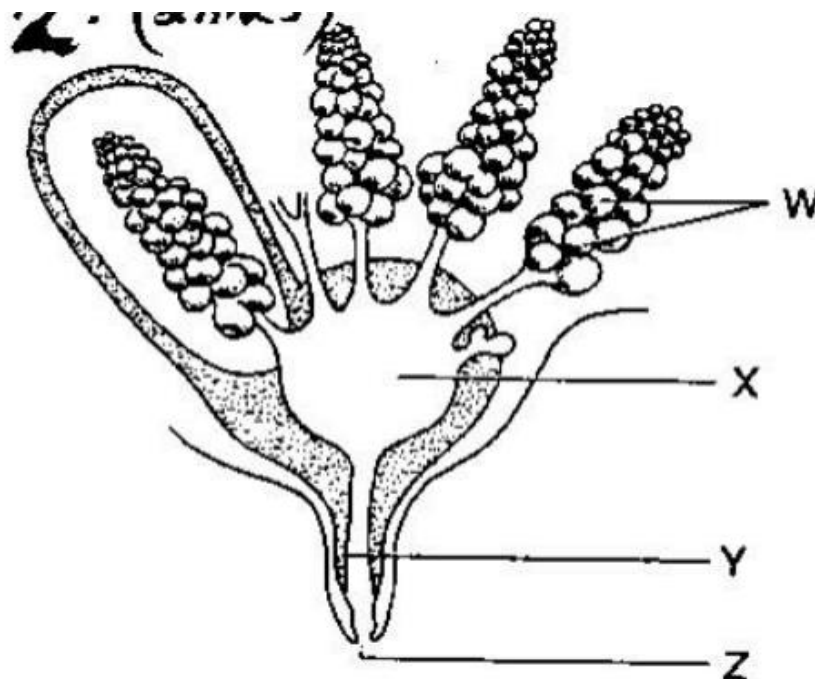
**W**.....

b) State the functional differences between tools K and W. (1 mark)

c) What advantage does C have over A and B? (1 mark)

d) State **one** common maintenance practice carried out in tool C and W. (1 mark)

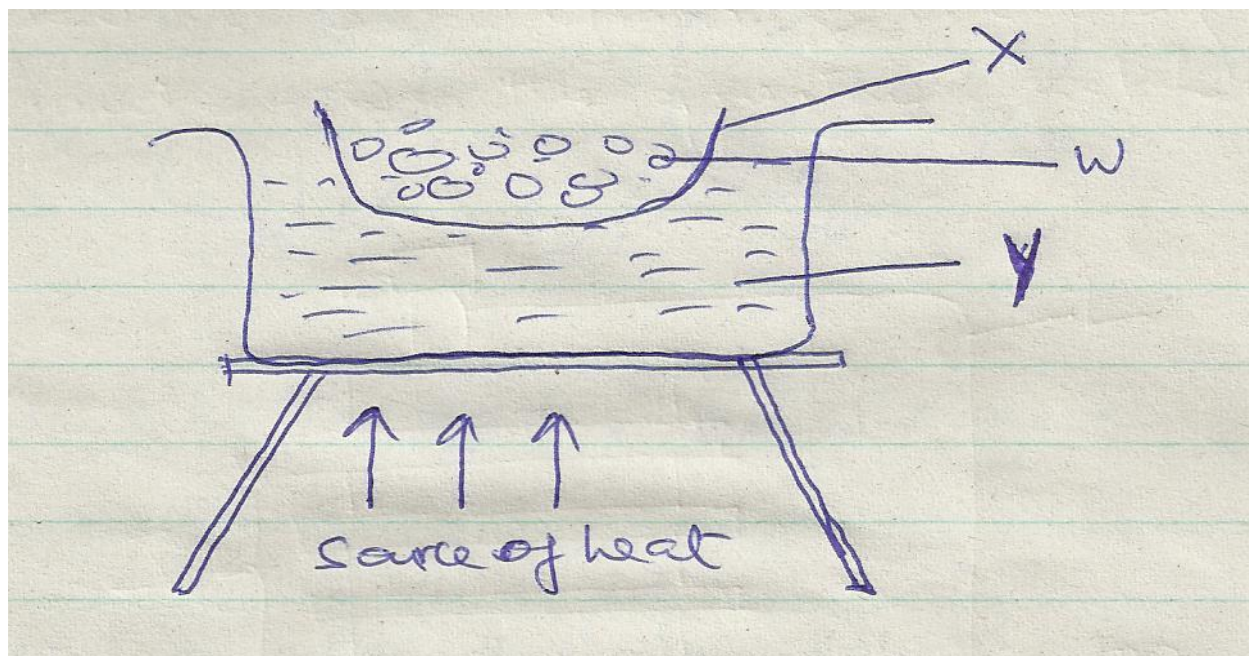
21a) The diagram below shows a structure of the udder of a cow. Name the part labeled W, X, Y and Z. (2 marks)



b) What is milk let down (1 mrk)

c) Name **two** hormones that control milk let down in dairy cow. (2 mrk)

22. Below is an illustration of a method of extracting honey from combs .Study the diagram and answer the question that follow.



- a) Identify the above method of extracting honey (1mrk)
- b) Give a reason why container x should not be heated directly (1mrk)
- c) Name the parts labeled w and y (2mrks)
- d) Besides the above method ,State one other method of extracting honey (1mrk)

### SECTION C (40 MKS)

#### Answer Any Two Questions In This Section

- 23(a) State **five** reasons why bees swarm. (5 marks)
  - b) Describe **five** maintenance practices carried out on a tractor battery. (5 marks)
  - c) Explain **five** factors considered when culling livestock. (5 Mks)
  - d. Explain **five** mechanical methods of controlling ticks. (5 mks)
- 
- 24a) Describe the process of egg formation in chicken up to the point of laying. (10 Mks)
  - b) State the differences between four stroke cycle and two stroke cycle engine. (5 Mks)
  - c) Describe the process of digestion in rumen. (5 Mks)



**25. a)** Describe trypanosomiasis disease under the following sub-headings.

- i)** Causal organism (1 Mk)
- ii)** Animal attacked (1 Mk)
- iii)** Five symptoms of attacked animals (5 Mks)
- iv)** Three control measures (3 Mks)
- b)** Control five control measures for cannibalism (5 Mks)
- (c)** Explain five parts of a piggery unit (10mrks)

**KCSE 2025 TOP SCHOOLS' PREDICTIONS****EXPECTED EXAM 6**

443/1

**AGRICULTURE****PAPER 1**

TIME: 2 HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

*Kenya Certificate of Secondary Education.***INSTRUCTIONS TO CANDIDATES:**

- Write *your name* and *Index number* and *sign* in the spaces provided above.
- Answer *ALL* the questions in section *A* and *B* in the spaces provided in this booklet.
- Answer *any two* questions in section *C* in the spaces provided after the last question.

**For Examiner's Use Only:**

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATES SCORE
A	1 - 18	30	
B	19 - 22	20	
C	23 - 25	40	
	<b>TOTAL</b>	<b>90</b>	

**SECTION A (30marks).****Answer all Questions in this section.**

1. a) State four characteristics of extensive farming system. (2mks)
- b) List two disadvantages of small scale farming. (2mks)
2. Name two ways in which predators affect agricultural production. (1mk)
3. List down four factors that influence formation of soil. (2mks)
4. State two farming practices that bring about minimum tillage. (1mk)
5. Name the function of each of the following chemicals in water treatment.
  - a) Alum (1mk)
  - b) Soda ash (1mk)
6. State two importance of organic matter in the soil. (1mk)
7. State three reasons why green manure is not commonly used in the farms. (1 ½ mks)
8. State four uses of farm records. (2mks)
9. List three importance of phosphorous in crop growth. (1 ½ mks)
10. Name four significance of using seeds as planting materials. (2mks)
11. List two importance of tissue culture in propagating crops. (1mk)
12. State the difference between the following terms. (2mks)
  - a) Rogueing
  - b) Gapping
13. State four effects of applying too much nitrogenous fertilizer to crops. (2mks)
14. Name four disadvantages of communal land tenure system. (2mkS)
15. State four precautions farmers should observe when using agro-chemical for their safety and for environmental safety. (2mks)
16. State three harmful effects of pests on crops. (1 ½ mks)
17. State three qualities of a good manager in a farm setting. (1 ½ mks)
18. State two factors that influence the demand of a commodity. (1mk)

**SECTION B (20 MARKS)****Answer all questions in this section.**

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



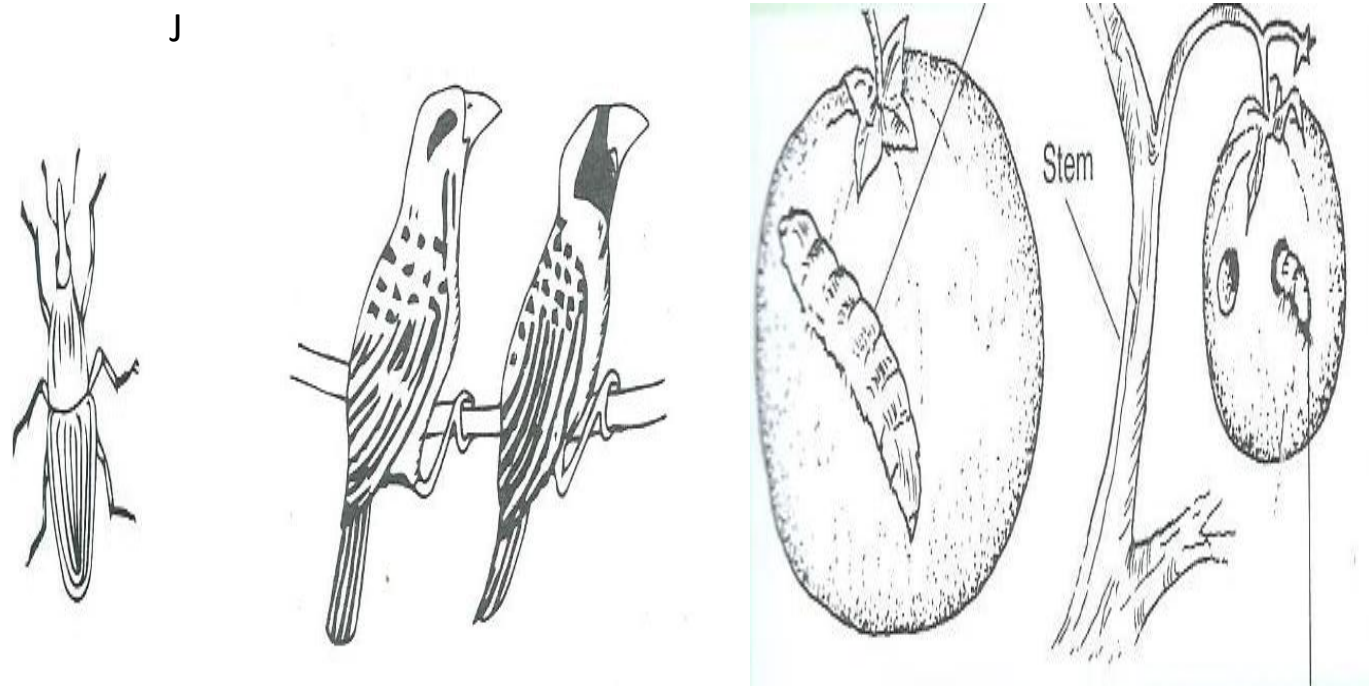
- a) Identify the three harvesting methods shown in the diagrams above. **(2mks)**
- b) Name four sites for agroforestry trees in the farm. **(2mks)**

20. The document below was obtained from one of the books of accounts in kimko's farm. Study the document and answer the questions that follow.

DAIRY CATTLE							
DR				CR			
Date	Particulars	Folio	Amount Sh cts.	Date 2003	Particulars	Folio	Amount Sh cts.
Feb 20 <sup>th</sup>	Bought 2 bag of dairy meal	1	18,000.00	Feb 10 <sup>th</sup>	Sold 2 heifer	1	12,000.00
Feb 30 <sup>th</sup>							

- a) Identify the book from which the above document was obtained. (1mk)
- b) State four importance of keeping proper farm account records. (2mks)

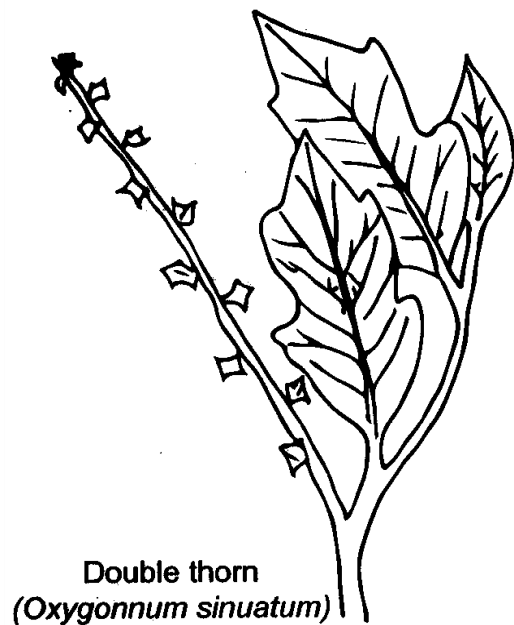
21. The diagram below shows pests that affect crops when in the field. Study the diagrams and answer the questions that follow.



- a) Identify the pest J, K and L. (3mks)
- b) State two ways of controlling the pest labeled L above. (2mks)
- c) State one crop attacked by the pest labeled J and K above. (2mks)

22. The Following weeds were found growing on a maize farm by a form four student. Study the weeds and answer the questions that follow.

X



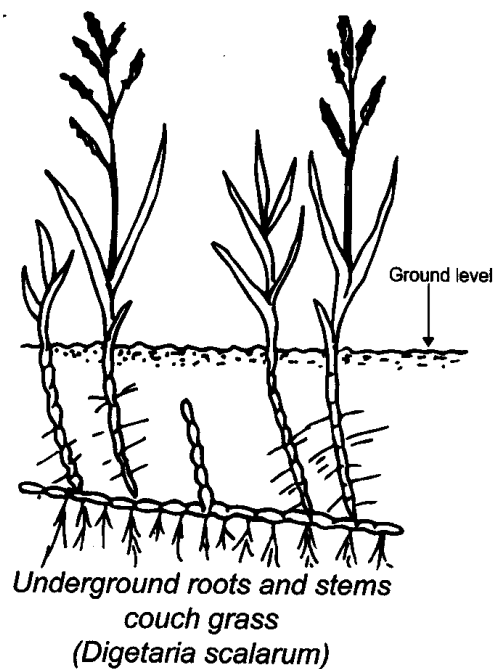
M



Y



Z





- a) Name the weeds labeled X, Y and Z above. (3mks)
- b) State one reason that makes each of the following weeds difficult to control. (2mks)
- (i) X
- (ii) Z
- c) State one reason why the weed labeled M should not be allowed to grow in the farm. (1mk)

**SECTION C (40 marks)**

**Answer only two questions in this section**

23. a) Explain five cultural methods a farmer can use to control weeds. (10mks)
- b) State and explain five factors considered when establishing nursery bed site. (10mks)
- 24.a) Describe five ways in which a farmer may adjust to uncertainty and risks in the farm. (10mk)
- b) Explain five physical methods used to control crop pests in a crop land. (10mks)
25. a) State five types of information contained in a title deed. (5mks)
- b) State five methods used to control soil and water pollution. (5mks)
- c) State and explain five ways an entrepreneur can use to improve labour productivity in a farm. (10mks)

**KCSE 2025 TOP SCHOOLS' PREDICTIONS****EXPECTED EXAM 6**

443/2

**AGRICULTURE****PAPER 2**

TIME: 2 HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

*Kenya Certificate of Secondary Education.***INSTRUCTIONS TO CANDIDATES:**

- Write *your name* and *Index number* and *sign* in the spaces provided above.
- Answer *ALL* the questions in section *A* and *B* in the spaces provided in this booklet.
- Answer *any two* questions in section *C* in the spaces provided after the last question.

**FOR EXAMINER'S USE ONLY:**

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATES SCORE
A	1-18	30	
B	19-21	20	
C	22-24	40	
	<b>TOTAL</b>	<b>90</b>	

**SECTION A (30MARKS)**

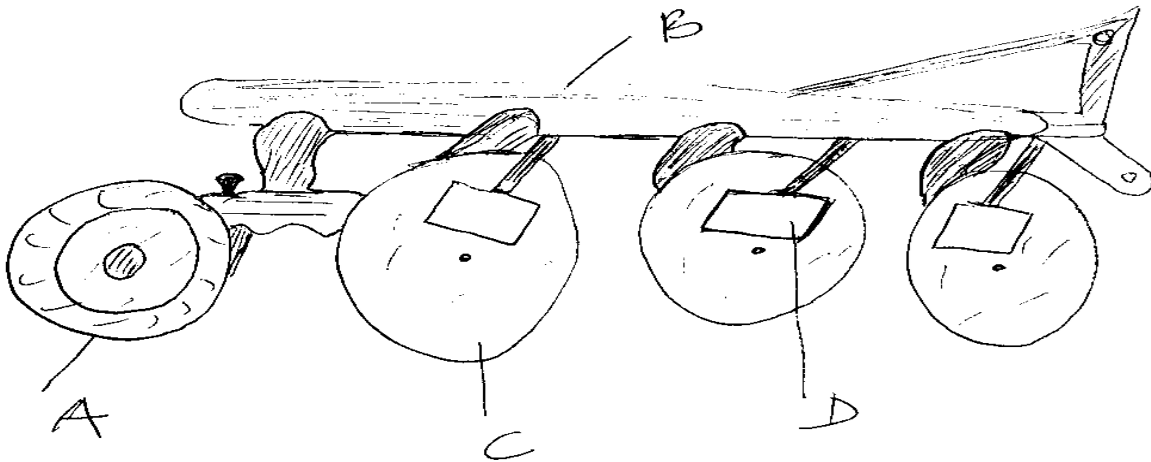
**Answer all the questions in this section.**

1. State two reasons of using farm tools and equipment in the farm. (2mks)
2. State three reasons that would make a farmer opt to rear indigenous cattle breeds instead of exotic cattle breeds. (1 ½ mks)
3. State three characteristics of Bacterian type of camel. (1 ½ mks)
4. Name four factors that influence the pulse rate of an animal. (2mks)
4. State three signs of attack by endoparasites a farmer can observe. (1 ½ mks)
6. State four factors that determine the amount of food given to an animal. (2mks)
7. Name three reasons that would make a farmer use a machakos dip instead of a plunge dip to control ticks. (1 ½ mks)
8. State four factors considered when selecting construction materials. (2mks)
9. Name three methods a farmer can use when selecting livestock for breeding. (1 ½ mks)
10. Mention three signs of heat in a doe. (1 ½ mks)
11. Mention four reasons that would make a farmer carry out identification to his herd. (2mks)
12. State two diseases that commonly affect bees in bee farming. (2mks)
13. State four methods a farmer can use when preserving fish after harvesting. (2mks)
14. State four factors that determine the choice of poultry rearing system that a farmer chooses to use. (2mks)
15. State one significance of mobile calf pen in calf rearing. (1mk)
16. State two disadvantages of a two stroke engine. (1mk)
17. State two factors that could cause sudden stopping of a tractor engine. (1mk)
18. State four disadvantages of animal drawn implements over tractor drawn implements. (2mks)

**SECTION B (20MARKS)**

Answer all questions in this section.

19. The diagram below shows a tractor drawn implement. Study it and answer the questions that follow.



- a) Name the parts A, B, C and D. (4mks)
- b) State two advantages of using the above implement over mould- board plough. (2mks)
- c) State the function of the parts labeled. (2mks)
- i) A
- ii) D

20. The diagram below shows livestock parasites. Study the diagrams and answer the questions that follow.



**X**



**Y**

- a) Identify the parasites X and Y above. (2mks)

- b) State two effects that are caused by the parasite labeled X on the animal's body. (2mks)
- c) Name one disease transmitted by parasite labeled X above. (1mk)
- d) State three measures taken to control the parasite labeled Y above. (3mks)

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



- a) Identify the livestock equipment marked E above. (1mk)
- b) State two reasons that make branding be discouraged as a method of livestock identification. (1mk)

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

**Answer any two questions.**

22. a) State five factors that predispose livestock to diseases. (10mks)
- b) State and explain five factors a farmer will consider when siting beehives in the farm. (10mks)
23. a) Briefly state and explain five equipment a farmer will need when milking and state their uses. (10mks)
- b) Explain five factors to consider when selecting a breeding stock. (10mks)
24. a) State and explain four materials collected by bees. (8mks)
- b) State and explain the use of four equipments a honey harvester would require to have when harvesting honey. (8mks)
- c) List four main reasons that make fish farming popular. (4mks)

**KCSE 2025 TOP SCHOOLS' PREDICTIONS****EXPECTED EXAM 7**

443/1

**AGRICULTURE****PAPER 1**

TIME: 2 HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

*Kenya Certificate of Secondary Education.***INSTRUCTIONS TO CANDIDATES**

1. This paper consists of three section A,B and C
2. Answer **ALL** the questions in section A and B and any **TWO** questions in section C.
3. Answers to be written in the spaces provided only.

**FOR OFFICIAL USE ONLY**

SECTION	MAX. SCORE	ACTUAL SCORE
A	30	
B	20	
C	40	
TOTAL	90	



**SECTION A - 30 marks**

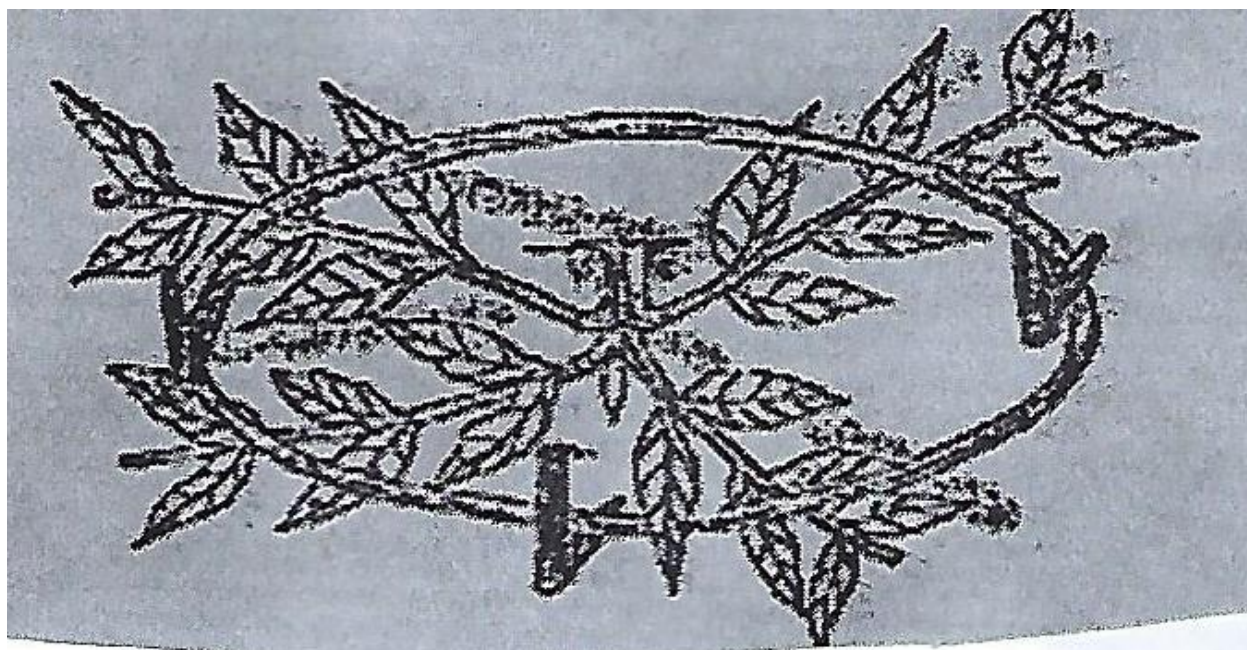
*Answer all the questions in the spaces provided*

1. State **four** aspects of rainfall that are important in Agriculture. ( 2 marks )
2. State **four** factors which determine the depth of ploughing during seedbed preparation. (2 marks)
3. Give **four** reasons for subsoiling on a piece of land. (2 marks)
4. Give a reason for carrying out each of the following practices in a vegetable farm.
  - (i) pricking out. \_\_\_\_\_ ( ½mk)
  - (ii) Hardening off \_\_\_\_\_ ( ½mk)
5. Mention any **four** advantages of land consolidation as practiced in Agriculture. (2 marks)
6. State **two** non-chemical methods of controlling storage pests in the granary. (1 mark )
7. State **four** precautions that should be taken when harvesting tea. (2 marks )
8. List **three** disadvantages of drip irrigation. (1 ½ marks)
9. State **four** characteristic of nitrogenous fertilizer. (2 marks )
10. List **four** micro-catchment systems. (2 marks )
11. List **three** methods of fertilizer application in crops production. ( 1 ½ marks)
12. State three forms of soil water. (1 ½ marks)
13. State three methods of cutworms control. (1 ½ marks)
14. Give four conditions required for settlement scheme to be successful. (2 marks )
15. Give **three** reasons for stooking maize. (1 ½ marks)
16. State **four** ways in which soil profile influence crop production. (2 marks)
- 17.(a) State three ways in which inorganic mulch helps to conserve water in the soil. (1 ½ marks)
- (b). State two factors that influence wind erosion. (1 mark)

**SECTION B ( 20 MARKS )**

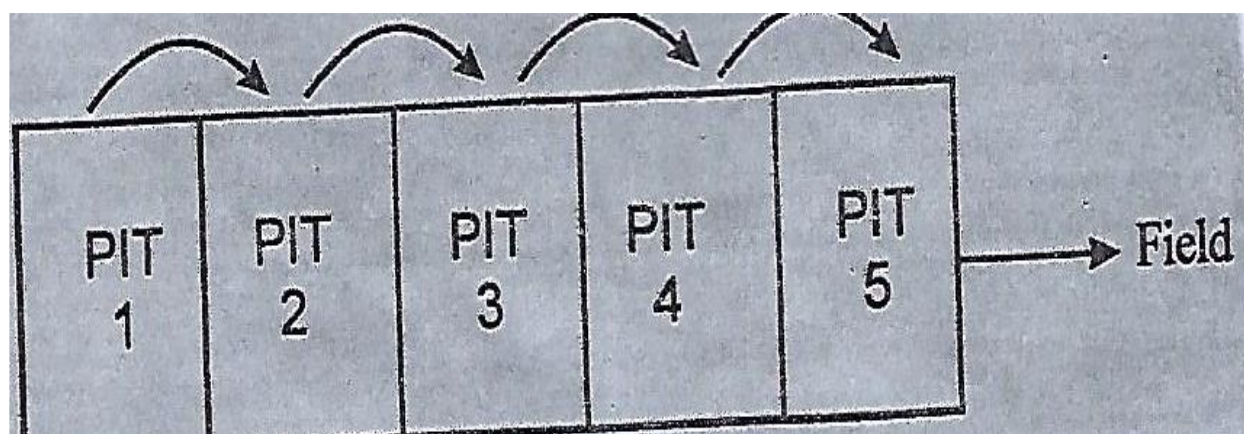
Answer all the questions in the spaces provided.

- 18.** The diagram below shows a method of bringing tea into bearing. Study it carefully and use it to answer the questions that follow.



- (i). Identify the method shown in the diagram. (1 mark )
- (b) Why is it necessary to prune a young tea plant as illustrated in the diagram above. (1 mark )
- (c) Outline the procedure followed when using the pruning method shown. (3 marks)

- 19.** The following diagram shows a method of compost preparation.



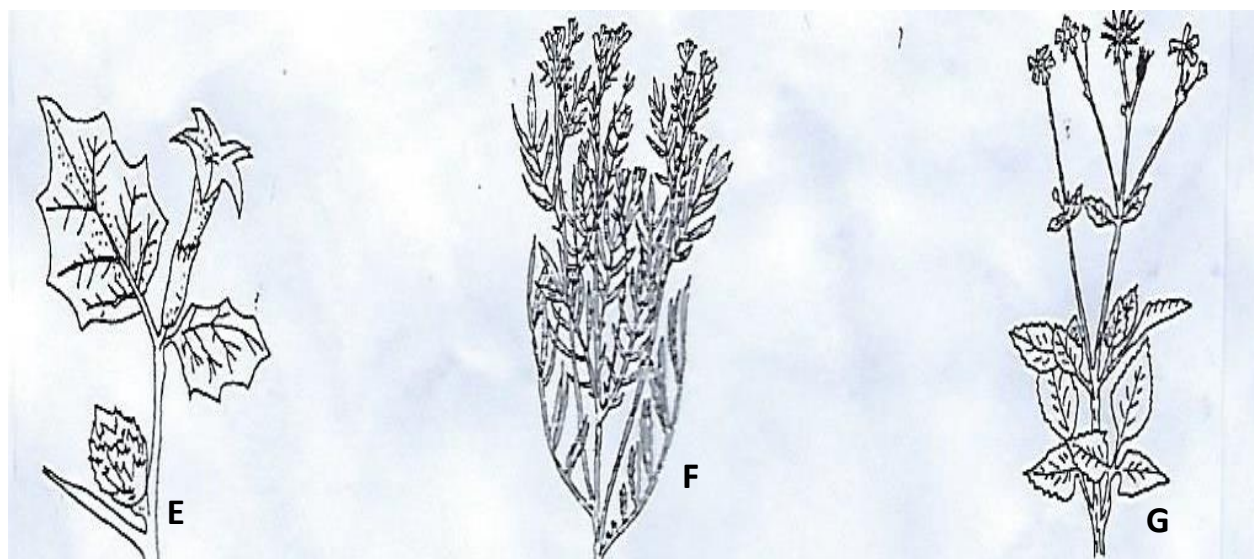
- (a) Identify the method. (1 mark )
- (b). Give four factors that should be considered when siting the compost pit. (2 marks )
- (c) State two factors that determine the time the manure would be ready for use in the field. (2 mks)

**20.** The diagram below shows a field crop pest. Study the diagram and answer the questions that follow.



- (a). Identify the pest. (1 mark)
- (b) Outline two harmful effects of the pests. (2 marks)
- (c) State two methods which are used to control the pests. (2 marks)

**21.** The illustrations labelled E-G below represents common weeds in pasture land. Study them carefully and answer the following questions.



- (a). Identify the weeds labelled E-G . (1 ½ marks)
- (b). Name the major problems posed by each of the specimen E – G when in pasture land ( 1 ½ marks )
- (c). Give two reasons why the three type of weeds may overtake and smother pasture species when they are allowed to grow together. (3 marks)



**SECTION C ( 40 marks)****Answer any two questions.**

**22.(a).** Describe the production of Napier grass under the following sub-heading;

- (a). Varieties (2 marks )
- (b). Land preparation. ( 4 marks)
- (c) Planting (2 marks)
- (d)Harvesting (2 marks)
- (b). State five factors considered when designing a crop rotation programme. (5 marks )
- (c) State five effects of land fragmentation. (5 marks)

**23(a)** Explains five biological measures used to conserve soil and water in the farm. (10 marks )

- (b) State five reasons for carrying minimum tillage. (5 marks)
- (c) Outline five ways government policy contributes to Agriculture. (5 marks)

**24.(a)** Explain five cultural measures to control pests. (10 marks)

- (b) Give four factors influencing timely planting (4 marks)
- (c) Explain four methods used to prepare planting material. (6 marks)

**KCSE 2025 TOP SCHOOLS' PREDICTIONS****EXPECTED EXAM 7**

443/2

**AGRICULTURE****PAPER 2****TIME: 2 HOURS**

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

*Kenya Certificate of Secondary Education.***INSTRUCTIONS TO CANDIDATES**

1. Write your *name* and *index number* in the spaces provided.
2. This paper consists of three sections; *A*, *B* and *C*
3. Answers should be written in the spaces provided.

**FOR EXAMINER'S USE ONLY**

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1 -15	30	
	16 – 20	20	
B	21 - 23	20	
C		20	
		20	
TOTAL SCORE		90	

**SECTION A (30 MARKS)**

**Answer all Questions from this section in the spaces provided.**

1. Under what condition would a farmer use an ox-cart instead of a tractor drawn trailer?(1 mk)
2. State **two** practices that may require special method of handling of a mature fresian cow.(1)
3. State any **two** physiological conditions of livestock that may be assessed to determine the health status of an animal. (1 mk)
4. Give any **four** precautions taken when harvesting honey. (2 mks)
5. Name **four** exotic pig breeds reared in Kenya. (2marks)
6. A cow gives birth to two offspring in a period of three years. One offspring is a male named Zulo and another, female named Kerio. Two years later Zulo is mated to Keroi and another offspring, called Tedi is given birth to
  - (i) Identify the specific system of breeding between Zulo and Keroi. (1 mk)
  - (ii) Give four disadvantages of such a system of breeding. (2 mks)
7. List **four** ways by which an animal may get infected by a disease from another. (2 mks)
8. Give **one** use for each of the following tools and equipment. (2 mks)
  - (i) Dibber
  - (ii) Halter
  - (iii) Bolus gun
  - (iv) Shovel
9. (a) State the purpose of dry cow therapy. ( ½ mk)
  - (b) List **four** factors that affect milk let down process. (2 mks)
10. List **four** observable features in a cow that may indicate that it's nearing parturition.(2 mks)
11. (a) Give the meaning of the following terms as used in livestock breeds. (1½ mks)
  - (i)Steer
  - (ii) Capon
  - (iii) Kindling
  - (b) Name the exotic beef breed of cattle with the following characteristics;
    - \* White / cream in colour
    - \* Heavily built
    - \* Originated from France (½ mk)

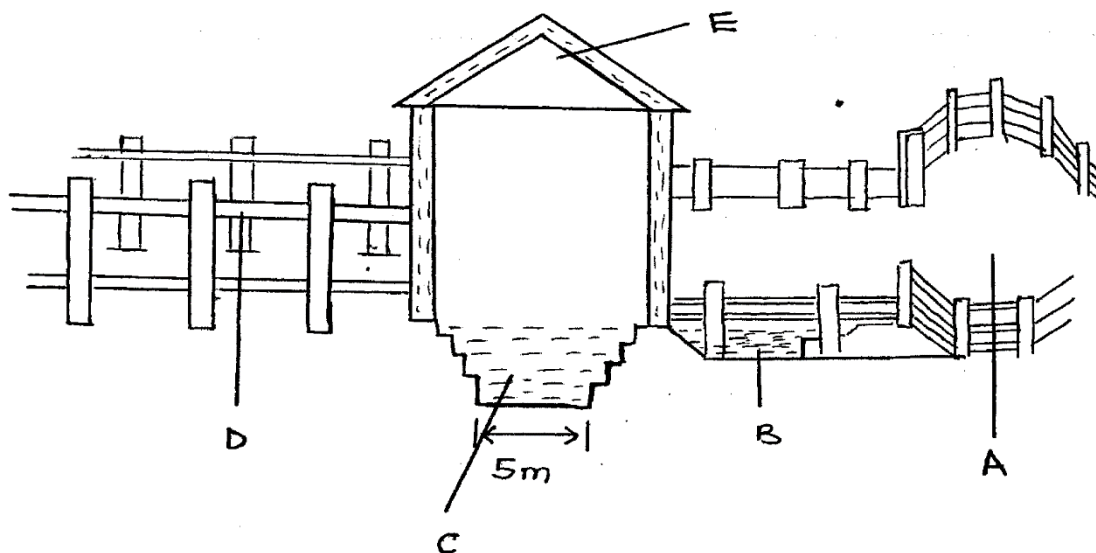


12. State **two** indicators of prolificacy in pigs. (1 mk)
13. Give **four** reasons for providing high quality ration in the last two weeks to parturition in goats. (2 mks)
14. Outline **three** reasons why calves should be fed on colostrum. (1½ mks)
15. State **two** ways by which each of the following aspects are achieved in a calf pen.
- (a) Proper drainage. (1 mk)
- (b) Freedom from draught (1 mk)
16. (a) Define Raddling in sheep management. (1 mk)
- (b) State **two** reasons for raddling. (1 mk)
17. Give **two** reasons why concrete floors are recommended for dairy sheds. (1 mk)

### **SECTION B (20 MARKS)**

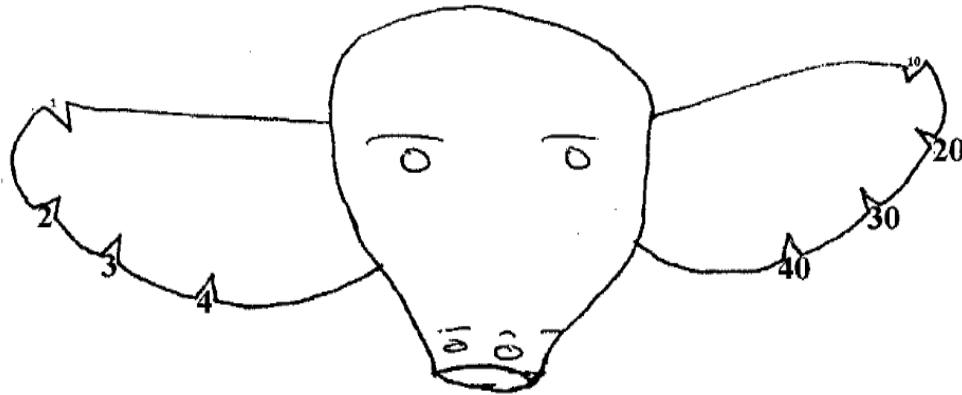
**Answer all the questions in this question in the spaces provided.**

18. Below is a farm structure. **Study** it carefully and answer the questions below.



- (i) **What** is the use of the above structure? (½ mark)
- (ii) State **one** management practice carried out on livestock before being led into the structure. (½ mark)
- (iii) State **two** roles played by the part labeled E. (1 mark)
- (iv) **Give** the role of the parts labeled A and B. (1 mark)
- (v) State **four** factors to consider when siting the structure in the farm. (2 marks)

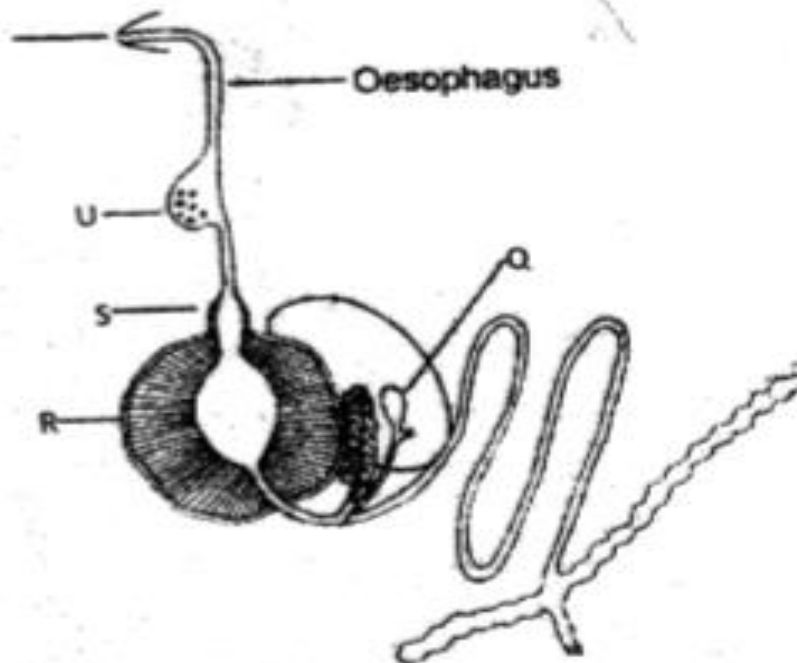
19. (a) Study the diagram below illustrating a method of identifying a farm animal.



Using the above illustration draw and mark number 87 (2 mks)

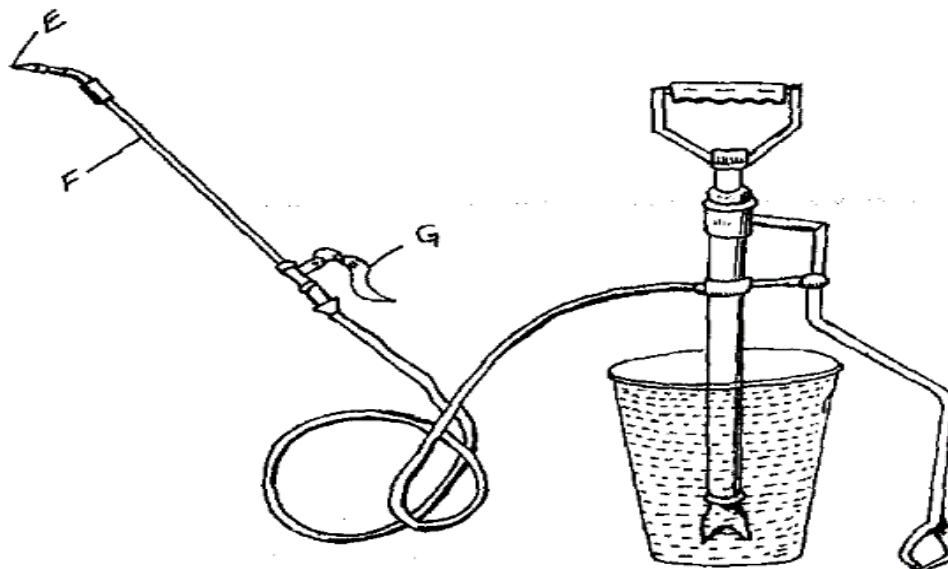
- (b) **Outline** the procedure of castrating a piglet by use of surgical method. (4 mks)

20. Study the diagram of chicken digestive system below and answer the question that follow.



- (a) Identify the parts labelled Q, R and S. (1½ mks)
- (b) Briefly describe the function of parts Q and R. (2 mks)
- Q
- R
- (c) How can a farmer improve on digestion in the structure labelled S. (½ mk)

21. Below is a diagram of a farm equipment. Use it to answer the questions that follow.



- (a) Identify the equipment. (½ mk)
- (b) State the use of the equipment (1 mk)
- (c) Name the parts labelled G,E and F. (1½mks)
- (d) Identify **two** draw backs in using this equipment compared to others that may be used for the same purpose. (2 mks)

### SECTION C (40 MARKS)

#### Answer any two questions from this section

22. (a) Discuss mastitis disease under the following subheading:
- (i) Specific causal organisms (2 mks)
- (ii) Predisposing factors (5 mks)
- (iii) Symptoms (4 mks)
- (iv) Control and treatment (5 mks)
- (b) State **four** ways by which a farmer can identify an animal suffering from worm infestation. (4 mks)
- 23.(a) Explain the various method of livestock disease control. (10 marks)
- (b) Explain the predisposing factors to animal disease. (10 marks)
24. (a) Discuss the management of layers from one day old to the start of laying in a deep litter system. (14 mks)
- (b) Explain management practices that would improve fish production. (6 mks)

**KCSE 2025 TOP SCHOOLS' PREDICTIONS****EXPECTED EXAM 8**

443/1

**AGRICULTURE****PAPER 1****TIME: 2 HOURS**

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

*Kenya Certificate of Secondary Education.***INSTRUCTIONS TO CANDIDATES**

- Write your name, index number, admission number and class in the spaces provided.
- Sign and write the date in the spaces provided above.
- Answer **all** the questions in section A and B.
- Answer any **two** questions in section C.
- Answers should be written in the spaces provided.

**FOR EXAMINERS USE ONLY**

SECTIONS	QUESTIONS	MAXIMUM SCORE	CANDIDATES SCORE
A	1-20	30	
B	21-24	20	
C		20	
		20	
TOTAL		90	

**SECTION A: (30 marks)**

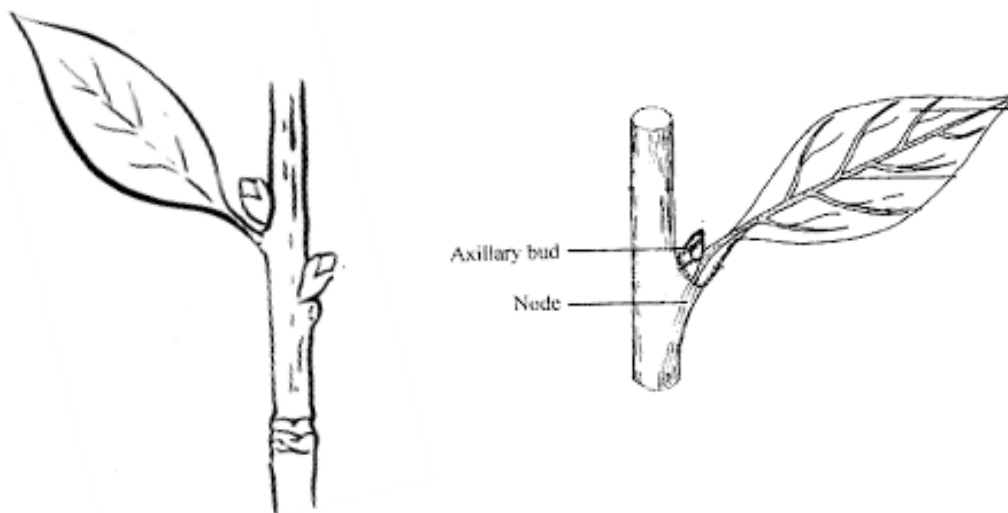
**Answer all questions in this section in the spaces provided.**

1. List **two** disadvantages of small scale farming. (1 mark)
2. Name **two** ways by which predators affect agricultural production. (1 mark)
3. Name the role of each of the following chemicals in water treatment.
  - i) Alum (½ mark)
  - ii) Soda ash (½ mark)
4. State **two** ways in which crop rotation controls weeds. (1 mark)
5. State **four** characteristics of a good vegetable seedling. (2 marks)
6. Name **two** forms of horticulture practised in Kenya. (1 mark)
7. State **two** mechanical methods of separating soil particles, according to size, during soil analysis. (1 mark)
8. State **four** reasons why a nursery is important in crop production. (2 marks)
9. Name the part used for vegetative propagation of each of the following plants. (2 marks)
  - a) Cassava .....
  - b) Sisal .....
  - c) Pyrethrum .....
  - d) Sweet potatoes .....
10. State **four** reasons for applying phosphatic fertilizers during planting. (2 marks)
11. Give **two** reasons for testing soil. (2 marks)
12. State **four** management practices undertaken to improve natural pastures. (2 marks)
13. State **four** qualities of certified seeds. (2 marks)
14. Name **four** classes of weeds. (2 marks)
15. State **three** causes of land fragmentation in Kenya today. (1½ marks)
16. State any **three** organic farming practices. (1½ marks)
17. What is meant by the term production function? (1 mark)
18. What is meant by the term integrated pest management? (1 mark)
19. Give **three** examples of fixed costs in maize production. (1½ marks)
20. State **three** factors that determine the choice of water pipes used on the farm. (1½ marks)

**SECTION B (20 MARKS)**

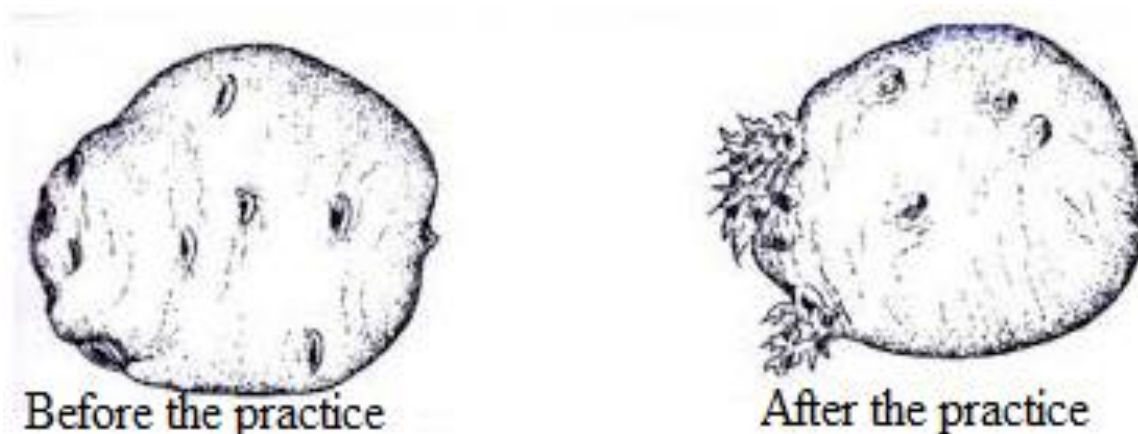
**Answer all questions in this section in the spaces provided.**

**21.** The diagram below shows a section of plant from which the planting material illustrated was obtained.



- a) Identify the planting material illustrated. (1 mark)
- b) Give **two** reasons why only the middle part of the plant was used to prepare the planting material. (1 mark)
- c) Apart from using the middle part of the plant, explain **three** precautions that should be observed when preparing the illustrated planting material. (3 marks)

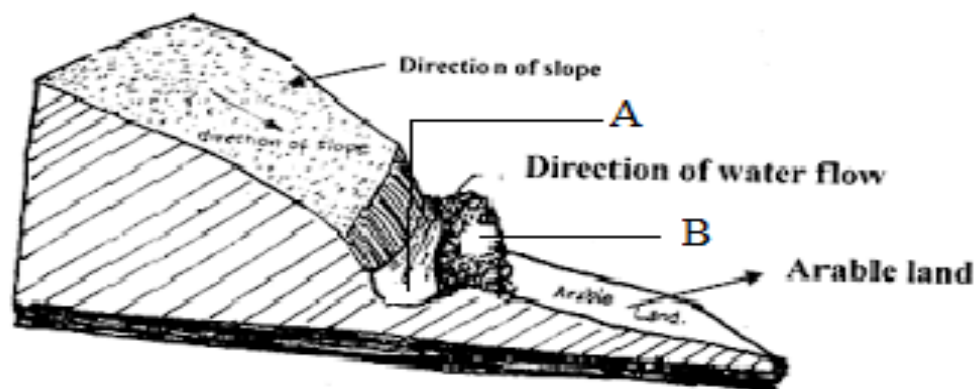
**22.** The diagram below illustrates seed potato which has been prepared for planting. Study it carefully and answers the questions that follow.



- i) Name the practice that has been used to prepare the seed potato above for planting. (1 mark)
- ii) Describe the procedure followed in preparing seed potatoes for planting. (4 marks)

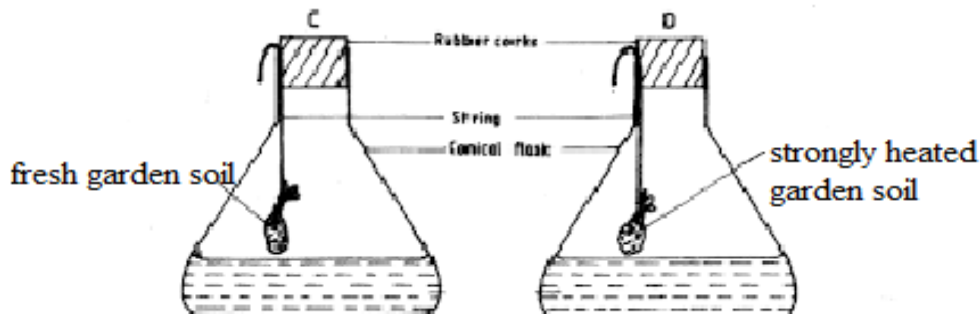


23. The diagram below illustrates a newly constructed cut-off drain. Study it carefully and answer the questions that follow.



- i) Identify the parts of cut off drains labeled A and B. (2 marks)
- ii) How can the part of the structure labeled B be stabilized after it has been constructed? (2 marks)
- iii) State any **one** factor that would determine the width and depth of the cut-off drain. (1 mark)

24. The diagrams below show a set up of an experiment to study an aspect of soil. The set up was left undisturbed for five hours. Study it and answer the questions that follow.



- a) What was the aim of the experiment? (1 mark)
- b) State **one** observation that was made in each of the flasks labelled C and D. (2 marks)
 

C .....

D .....
- c) Give a reason for each of your answers in (b) above. (2 marks)
 

C .....

D .....

**SECTION C (40MARKS)**

**Answer any two questions from this section in the spaces provided after question 27.**

- 25 a)** Explain **seven** factors that should be considered when selecting seeds for planting. **(7 marks)**
- b) State **four** benefits of adequate and reliable rainfall in vegetable crop production. **(4 marks)**
- c) Explain **four** factors that determine the nutrient content of hay. **(4 marks)**
- d) State **five** reasons for keeping farm records. **(5 marks)**
- 26a)** State the importance of any **five** nursery management practices. **(5 marks)**
- b) Explain **seven** cultural methods of soil and water conservation. **(7 marks)**
- c) Describe the role of magnesium in crop production. **(4 marks)**
- d) Describe **four** practices that a farmer should carry out to ensure uniform germination of seeds. **(4 marks)**
- 27 a)** Explain **five** factors that determine the spacing of crops. **(5 marks)**
- b) Explain **five** factors that may encourage soil erosion. **(5 marks)**
- c) Describe **five** management practices that should be carried out on a vegetable nursery after sowing seeds until the seedlings are ready for transplanting. **(5 marks)**
- d) State **five** soil factors that should be considered when selecting a crop to grow in an area. **(5 marks)**

**KCSE 2025 TOP SCHOOLS' PREDICTIONS****EXPECTED EXAM 8**

443/2

**AGRICULTURE****PAPER 2****TIME: 2 HOURS**

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

*Kenya Certificate of Secondary Education.***INSTRUCTION TO CANDIDATES**

- Write your name and index number in the spaces provided above.
- Sign and write the date of Examination in the space provided.
- This paper consists of three sections A, B and C.
- Answer ALL the questions in section A and B.
- Answer TWO questions in section C in the spaces provided.

**FOR EXAMINER'S USE ONLY.**

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATES SCORE
A	1 – 15	30	
B	16 – 19	20	
C	20– 22	20 20	
<b>TOTAL SCORE</b>		90	

**SECTION A (30MKS)***For Marking Schemes Contact 0746 222 000 / 0742 999 000*

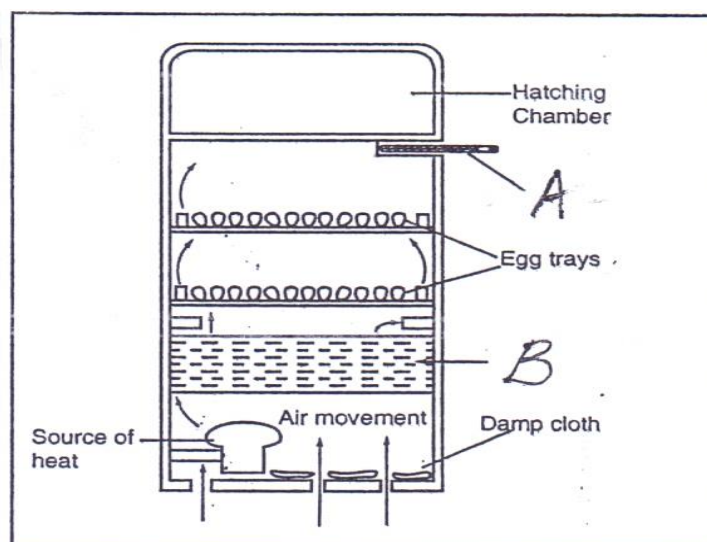
Answer all questions in this section on spaces provided.

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

### **SECTION B (20 MARKS)**

Answer ALL questions in this section in the spaces provided

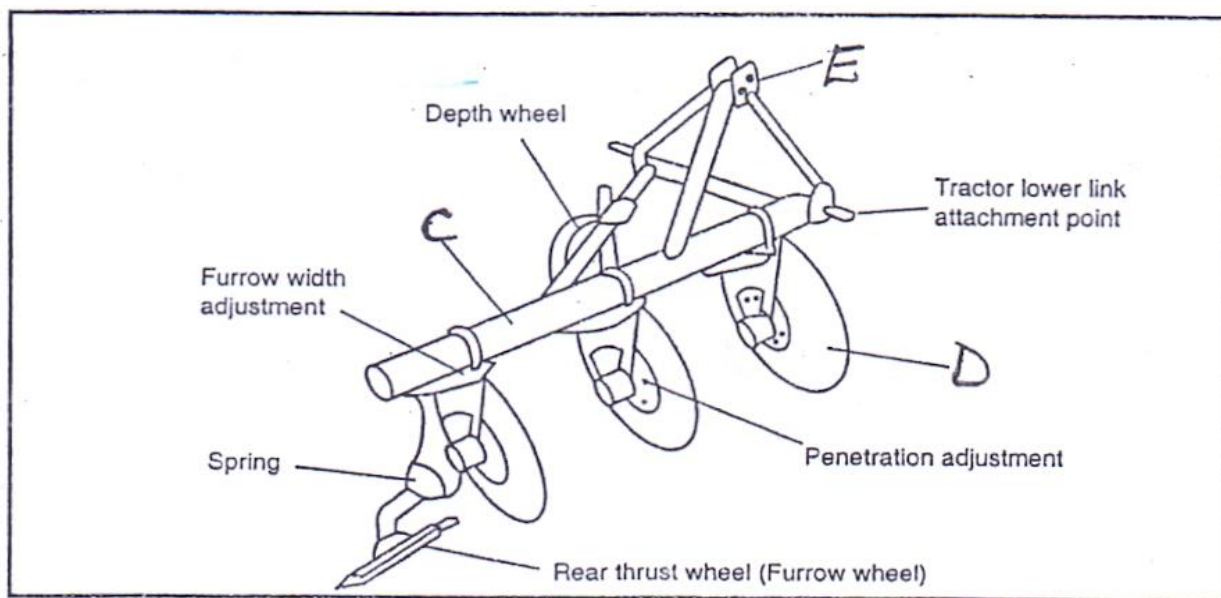
16. The following is a diagram of an artificial incubator. Study it and answer questions that follow.



- (a) Identify the following parts shown by letters A and B. (2marks)

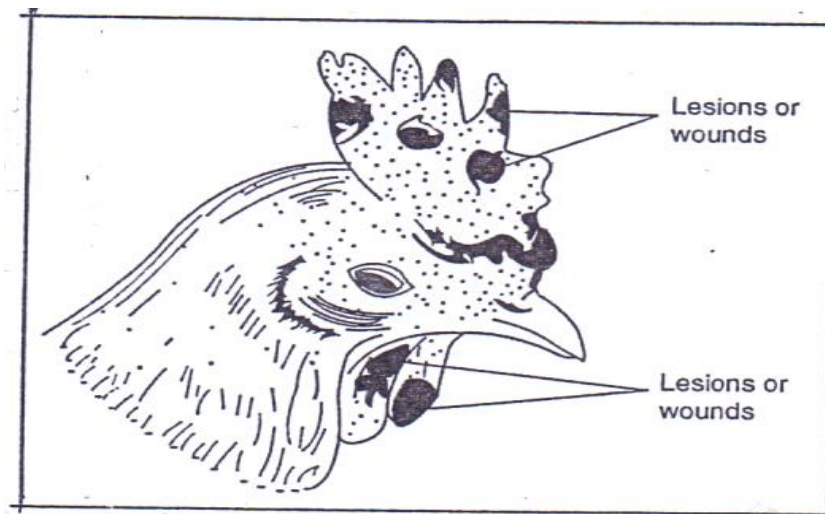
- (b) State three conditions that are necessary for a successful hatching. (3marks)

17. Study the following farm implement and answer the questions below.



- (a) Identify the above implement. (1/2mark)
- (b) Identify the parts shown by letters C, D, E. (1 1/2marks)
- (c) Give three reasons that make the implement better in land preparation. (3marks)

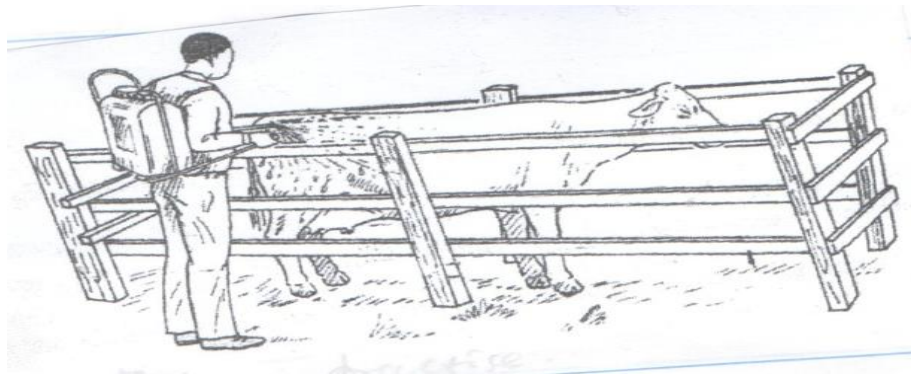
18. Study the following diagram and answer questions below.



- (a) Identify the above disease. (1mark)
- (b) What causes the above disease? (1mark)
- (c) Give two predisposing factors of the disease. (2marks)
- (d) Give one control measure of the disease. (1mark)

19. The illustration below shows a farm practice used in controlling external parasites in livestock.

Study it and answer the questions that follows.



- (a) Identify the methods of parasite control in the illustration above (1mark)
- (b) Name the equipment used for the practice in the illustration (1mark)
- (c) State two factors that leads to maximum effectiveness when using the practice above in tick control (2marks)
- (d) Name any other equipment that is used for the same practice (1mark)

### SECTION C (40 MARKS)

Answer any two questions from this section.

- 20.(a) Explain eight practices you can carry out in a crush. (8 marks)
- (b) Describe six advantages of rotational grazing. (6 marks)
- (c) Describe six effects of parasites on livestock. (6 marks)
- 21 (a) Describe eight short term services that should be done to a farm tractor. (8 marks)
- (b) Explain five reasons for maintaining farm tools and equipment. (5marks)
- (c) State eight causes of long calving intervals. (7marks)
- 22.(a) Describe ten uses of fences on a farm. (10 marks)
- (b) Explain five factors a farmer should consider in the construction of farm structures. (10 marks)

**KCSE 2025 TOP SCHOOLS' PREDICTIONS****EXPECTED EXAM 9**

443/1

**AGRICULTURE****PAPER 1**

TIME: 2 HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

*Kenya Certificate of Secondary Education.***INSTRUCTIONS TO CANDIDATES:**

- Write your **name** and **index number** in the space provided.
- **Sign** and **write the date** of examination in the space provided
- This paper consists of three section **A**, **B** and **C**.
- Answer all questions in section **A** and **B**.
- Answer any two questions in section **C**

**FOR EXAMINERS USE ONLY**

SECTION	QUESTIONS	MAX SCORE	CANDIDATES SCORE
A	1-16	30	
B	17-20	20	
C	21	20	
	22	20	
	23	20	
TOTAL		90	

**SECTION A (30MARKS)**



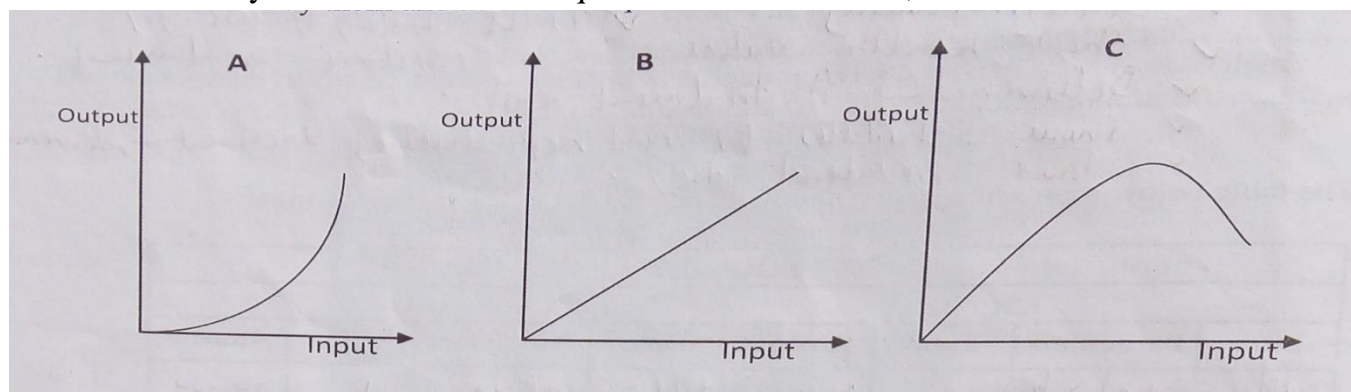
Answer all the questions in this section

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 (1/2 mk)
  - (ii) Pyrethrum (1/2 mk)
  - (iii) Sweet potatoes (1/2 mk)
  - (iv) Sugar cane (1/2 mk)
4. State four cultural ways of controlling couch grass (2mks)
5. Name three sources of underground water (1 1/2 mks)
6. State three causes of blossom end of rot in tomatoes (1 1/2 mks)
7. Give three qualities of a good green manuring plant (1 1/2 mks)
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 (1 1/2 mks)
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 (3mk)

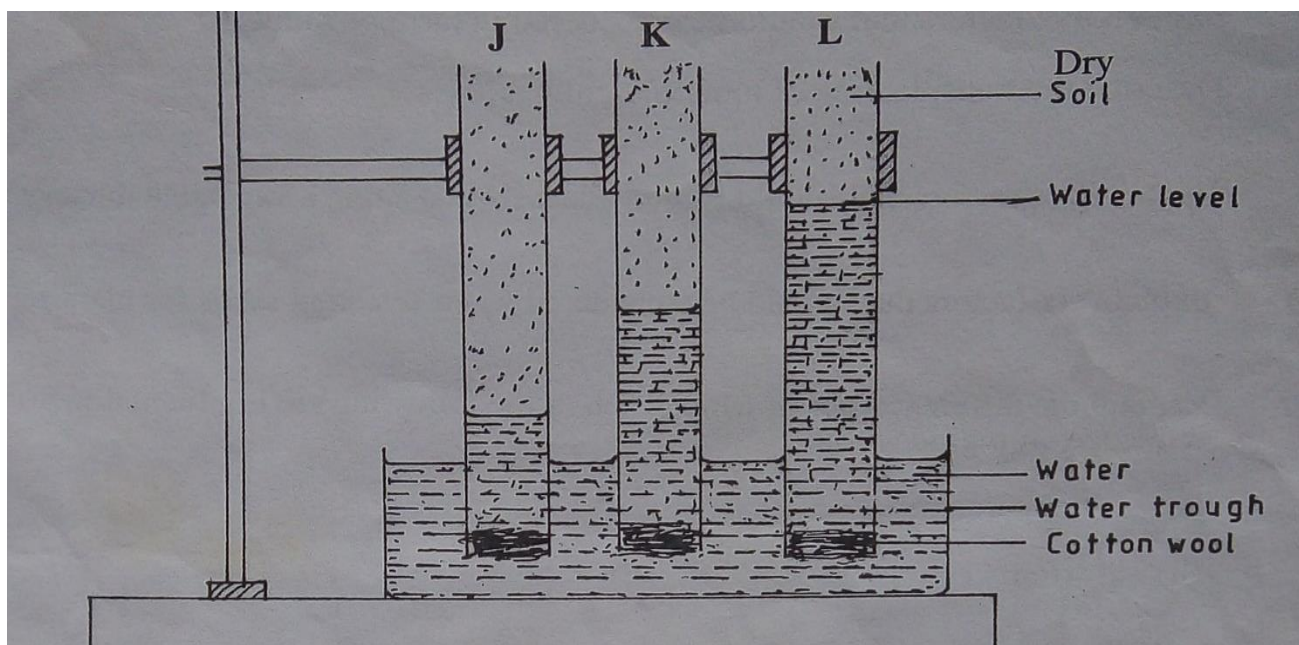
- (b) What does the law derived from the production function labeled C state? (1mk)
- (c)
- (i) Which one of the three production functions curves is rare in **Agriculture** (1mk)
- (ii) Give a reason for your answer in (i) above (1mk)

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.



- (a) Name the property of soil being investigated (1mk)
- (b) What is the relationship between the soil property above and the size of soil particles? (1mk)
- (c) Which soil sample would be suitable for growing paddy rice? (1mk)

(d) Give a reason for your answer in (c) above (1mk)

20. The following is a list of nutrients: copper, calcium, nitrogen, molybdenum, zinc, phosphorus, carbon, 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)

**KCSE 2025 TOP SCHOOLS' PREDICTIONS****EXPECTED EXAM 9**

443/2

**AGRICULTURE****PAPER 2****TIME: 2 HOURS**

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

*Kenya Certificate of Secondary Education.***INSTRUCTIONS TO CANDIDATES:**

- Write your **name** and **index number** in the space provided.
- **Sign** and **write the date** of examination in the space provided
- This paper consists of three section **A**, **B** and **C**.
- Answer all questions in section **A** and **B**.
- Answer any two questions in section **C**

**FOR EXAMINERS USE ONLY**

SECTION	QUESTIONS	MAX SCORE	CANDIDATES SCORE
A	1-21	30	
B	22-24	20	
C	25	20	
	26	20	
	27	20	
TOTAL		90	

**SECTION A (30MARKS)**

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

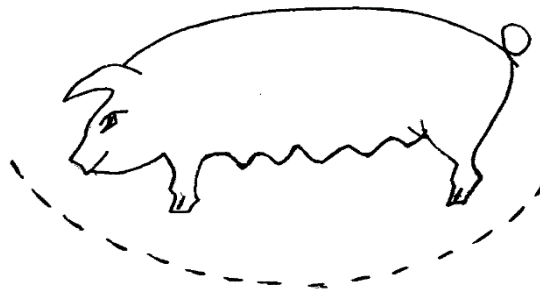
1. Give **four** signs of ill health in livestock. (2mks)
2. List **four** materials that can be used in the construction of Kenya top bar hive. (2mks)
3. State **four** management practices carries out on a cows during parturition. (2mks)
4. Name four methods of controlling Newcastle disease in chicken (2mks)
5. State the role of the following practices when rearing piglets
  - (i) Iron injection. (1/2mks)
  - (ii) Tooth clipping (1/2mks)
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 (1/2mks)
  - (ii) Toggen burg goat (1/2mks)
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)  
Castor oil  
Cod liver oil
14. State four reasons for breeding animals. (2mks)
15. State the functions of each of the following
  - (a) Shovel (1/2mks)
  - (b) Strip cup (1/2mks)
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)

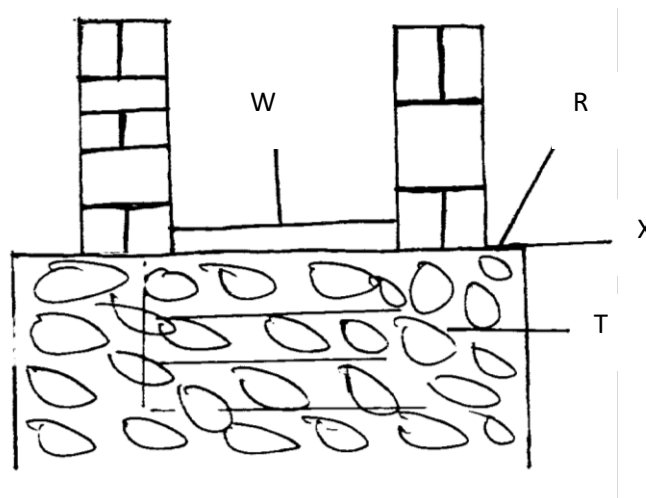
### SECTION B (20 MARKS)

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

- 22.
- (a) If the maize meal contains 60% digestible 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. (2mks)
23. The figure below is a pig with some body paints. Study it and answer the questions that follow.

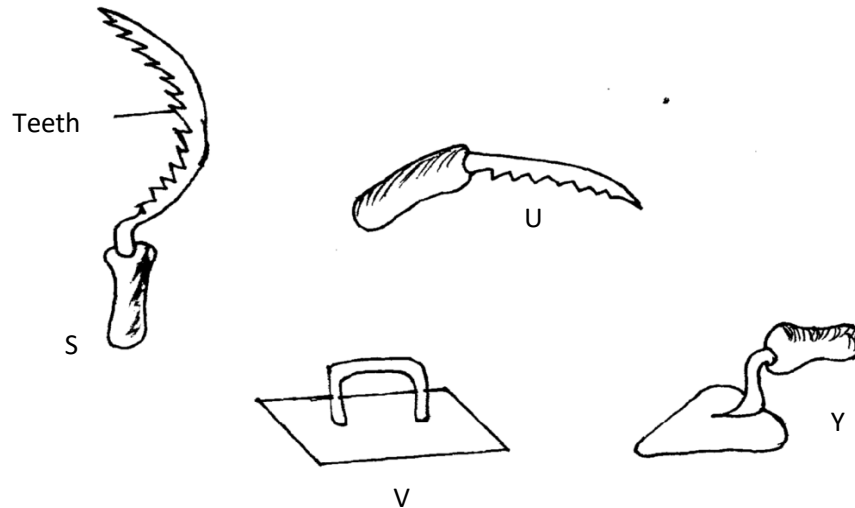


- (i) A farmer wants to select a breeding stock. State the three physical qualities the farmer should asses in order to select a pig. (3mks)
- b) Study the illustration below of a hard flow foundation in a farm structure.



- i) Name the parts labeled Rand T (2mks)
- ii) State three advantages of concrete floor. (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)

**KCSE 2025 TOP SCHOOLS' PREDICTIONS****EXPECTED EXAM 10**

443/1

**AGRICULTURE****PAPER 1****TIME: 2 HOURS**

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

*Kenya Certificate of Secondary Education.***INSTRUCTIONS:***a) The paper has 3 sections.**b) Answer all questions in section A and B and any 2 questions in section C.***SECTION A: (30MKS)**

1. State four advantages of using farm yard manure. (2mks)
2. State four merits of minimum tillage in crop production. (2mks)
3. Mention four practices carried out to maintain grass pastures. (2mks)
4. State four disadvantages of nomadic pastoralism. (2mks)
5. Mention four cultural methods of used control in crop production. (2mks)
6. State four ways of overcoming extremes of temperature in crop production. (2mks)
7. List five precautions observed in harvesting tea to ensure high quality produce. (2½ mks)
8. List three ways in which primary cultivation can be achieved. (1 1/2mks)

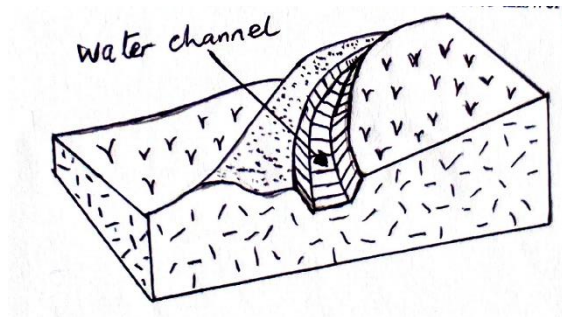
9. An agriculture student was advised to apply complete fertilizer 40:30:10 in a (20x10) M plot and at the rate of 40kg per hectare.
- (i) Calculate the percentage of  $P_2O_5$  in the complete fertilizer. (2mks)
- (ii) Calculate the amount of fertilizer the student would require for the plot. (2mks)
10. State four divisions of livestock farming. (2mks)
11. List four methods commonly used for applying nitrogenous fertilizers. (2mks)
12. Name four factors influencing soil formation. (2mks)
13. A farmer owns one hectare on which he can grow maize whose yield is 15 bags/hectare but has chosen to grow sorghum whose yield is 20 bags/hectare. If maize is sold at shs 1200 per bag while sorghum is sold at shs 700 per bag. Calculate the opportunity cost. (2mks)
14. State four characteristics of plants used for preparation of green manure. (2mks)

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

15. Students in an agriculture class set out to investigate the constituents of soil sample from school. They carried out a series of tests on various portions of the sample. They then prepared a table as shown below:

Description	Quantity
Mass of an empty evaporating disk	10g
Fresh soil on evaporating disk	35g
Mass of dried soil at 105°C on evaporating disk	28g
Vol. of water in the tin	250cm <sup>3</sup>
Vol. of water and soil after stirring	410cm <sup>3</sup>
Mass of empty silica disk	15g
Mass of silica disk and soil after ignition	45g
Mass of silica disk and dried soil before ignition	65g
Volume of water and soil before stirring	500cm <sup>3</sup>

- a) Calculate the percentage of soil water in the sample. (1mk)
- b) Why was soil heated at 105°C? (1mk)
- c) Calculate the percentage of soil air in the sample? (1mk)
- d) Calculate the percentage of soil organic matter in the sample. (1mk)
- e) Name one other soil constituent not tested above. (1mk)
16. The diagram below shows a construction on farm. Use it to answer the questions that follow.



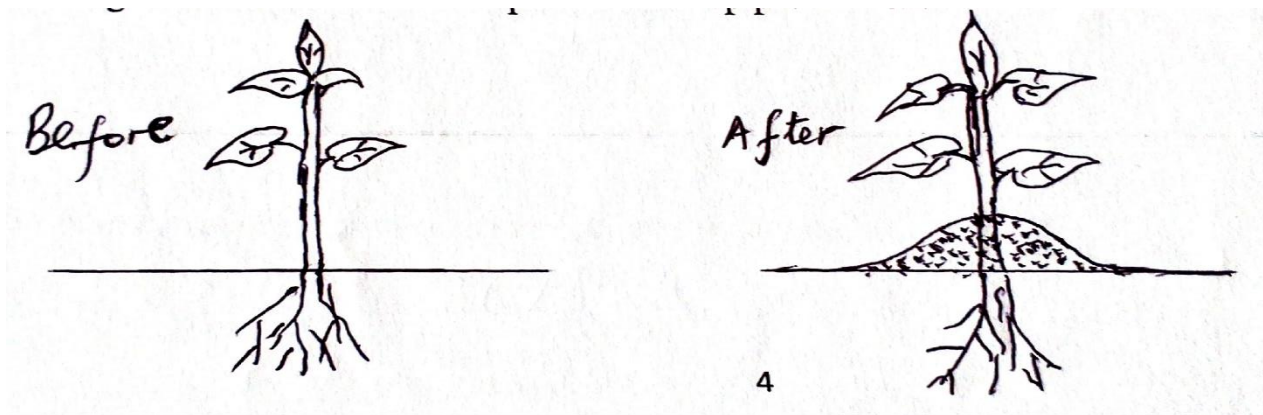
a) Identify the above structure.

(1mk)

b) State four areas where water in the channel is directed to:

(4mks)

17. The diagram below shows a field practice in crop production.



a) Identify the practice.

(1mk)

b) State two advantages of the practice named in (a) above to Irish potatoes.

(2mks)

c) Name two other crops that require the above practice.

(2mks)

18. Use the diagram below to answer the questions.



(a) Identify the sorghum variety shown above.

(1mk)

- (b) State two bird pests that commonly attack the crop. (2mks)
- (c) Name two other varieties commonly grown by farmers. (2mks)

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

19. (a) Outline the procedure for soil sampling. (8mks)
- (b) Give five reasons for ridging sweet potatoes. (5mks)
- © Outline seven properties of nitrogenous fertilizers. (7mks)
20. (a) Discuss five benefits of weeds to the farmer. (10mks)
- (b) Discuss five importance of draining a waterlogged area. (10mks)
21. (a) Discuss five factors influencing crop rotation. (10mks)
- (b) Discuss five government policies that regulate production, marketing and distribution of agricultural products. (10mks)

**KCSE 2025 TOP SCHOOLS' PREDICTIONS****EXPECTED EXAM 10**

443/2

**AGRICULTURE****PAPER 2****TIME: 2 HOURS**

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

*Kenya Certificate of Secondary Education.***INSTRUCTIONS TO CANDIDATES:**

- (a) This paper consists of three sections A, B and C.
- (b) Answer all the questions in section A and B.
- (c) Answer any two questions in section C.
- (d) Answers should be written in the spaces provided.

**SECTION A: (30 MARKS)**

- 1. Name two exotic breeds of dairy goats. (1 mk)
- 2. State four advantages of natural method of rearing calves. (2 mks)
- 3. (a) Name livestock commonly attacked by keds.  $\frac{1}{2}$  mk
- (b) Give three signs of attack by keds on livestock named in 3(a) above.  $1\frac{1}{2}$  mk
- 4. State four disadvantages of a hedge in a farm. (2 mks)
- 5. (a) Name a tool used in carrying out each of the following practices:
  - (i) Cutting galvanized iron sheet -  $\frac{1}{2}$  mk
  - (ii) Cutting wood along the grains -  $\frac{1}{2}$  mk
  - (iii) Marking lines parallel to the edge of stock -  $\frac{1}{2}$  mk

- (iv) Placing mortar between construction stones - 1½ mk)
6. State four maintenance practices carried out on a jack plane. (2 mks)
7. State four signs of parturition in a cow. (2 mks)
8. Explain how the following methods help in controlling livestock diseases:
- (i) Mass slaughter 1½ mk)
  - (ii) Proper feeding - 1½ mk)
  - (iii) Quarantine - 1½ mk)
  - (iv) Vaccination - 1½ mk)
9. Give two uses of litter in a brooder. (1 mk)
10. State two reasons for dehorning in cattle. (2 mks)
11. Give four essentials of clean milk production in a herd. (2 mks)
12. Give four predisposing factor of pneumonia in cattle. (2 mks)
13. State four factors that determine digestibility of a feed. (2 mks)
14. Give four methods of preserving fish. (2 mks)
15. Give four disadvantages of using thatch in construction of farm buildings. (2 mks)
16. State four reasons for swarming in bees. (2 mks)

### SECTION B: (20 MARKS)

17. (a) A farmer was advised to prepare 180kg of calf ration containing 20% DCP. Using pearsons square method, calculate the amount of maize containing 10% DCP and sunflower containing 40% DCP the farmer needs to use. Show your working. (4 mks)
- (b) State two factors considered when formulating a livestock ration. (2 mks)
18. Study the diagram below and answer the questions that follow.



- (a) Name the type of identification illustrated above. (1 mk)
- (b) Give the identification number of the pig illustrated above. (1 mk)



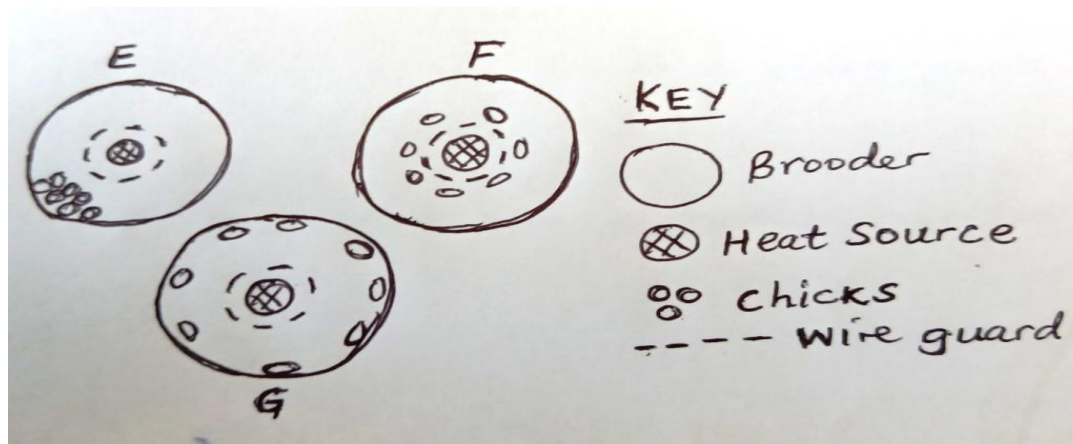
(c) Using a diagram, illustrate how animal number 83 can be identified using the above method.

(2 mks)

(d) What is the use of metal rails in a farrowing pen.

(1 mk)

19. The diagrams below shows the behaviour of chicks in a brooder in response to heat.



(a) Explain the behaviour of chicks in brooder;

E –

(1 mk)

F –

(1 mk)

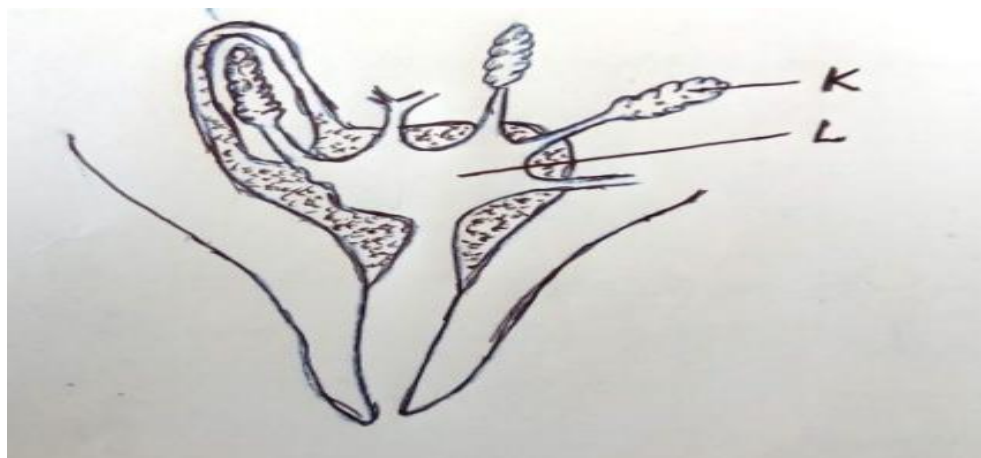
G –

(1 mk)

(b) Explain why the brooder is rounded.

(1 mk)

20. The diagram below shows the structure of the udder of a cow. Study it then answer the questions that follow.



(a) Identify parts labeled **K** and **L**.

(2 mks)

**K** –

**L** –

- (b) Name two hormones that control milk let-down in a dairy cow. (2 mks)
- (c) Name one disease that attacks part labeled L. (1 mk)

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

21. (a) Describe the physical characteristics of a good dairy cow for breeding. (10 mks)
- (b) (i) State five functions of water in the body of livestock. (5 mks)
- (ii) Explain the advantages of a four stroke cycle engine. (5 mks)
22. (a) Explain five factors that affect milk composition in dairy cattle. (5 mks)
- (b) Describe five factors that may lead to failure of a cow to conceive after service. (5 mks)
- (c) Explain the factors that a farmer should consider when selecting materials to construct a zero grazing unit. (10 mks)
23. (a) Describe milk fever under the following sub-headings:
- (i) Animal affected. (1 mk)
- (ii) Cause of disease. (1 mk)
- (iii) Symptoms. (5 mks)
- (iv) Control measures. (3 mks)
- (b) Outline the advantages of artificial insemination in cattle. (10 mks)

# ***THE END***

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