

# **KCSE 2025 TOP SCHOOLS MOCKS**

## **AGRICULTURE**

### **(MOCK EXAMS 1-10)**

To encourage academic excellence, top-performing national schools collaborate on the “National Schools” joint mock exam compilation. The goal of this collaborative effort is to push students and enhance their readiness for national exams through the use of challenging tests. The goal of participating schools' resource and strategy sharing is to raise student achievement and promote an achievement-focused culture.

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### **KEY TO SUCCESS!**

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***For Marking Schemes***

***Mr Isaboke [0746-222-000](tel:0746-222-000) / [0742-999-000](tel:0742-999-000)***

**MWALIMU CONSULTANCY**

# KCSE 2025 TOP SCHOOLS MOCKS

## **EXAM TRIAL 1**

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 contains **three** sections A, B and C*
- (b) Answer **ALL** the questions in section A and B*
- (c) Answer any **Two** questions from section C*
- (d) All answers should be written in the spaces provided.*

### **FOR EXAMINERS USE ONLY**

SECTION	QUESTIONS	MAX SCORE	CANDIDATES SCORE
A	1-14	30	
B	15-18	20	
C		20	
		20	
TOTAL		90	

## **SECTION A (30MKS)**

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

- 1) State the **three** forms in which horticulture is practiced in Kenya (1½ marks)
- 2) Identify **two** ways in which agriculture support agro based industries (1 mark)
- 3) List down **three** biotic factors that influence agriculture negatively (1½marks)
- 4) Name any **three** crops that can be propagated by use of suckers (1½marks)
- 5) Outline **four** roles of trees in soil conservation (2 marks)
- 6) Identify **two** examples of intensive farming systems practiced in crop production (1 mark)
- 7) Outline **four** ways in which living organisms contribute to soil formation (2 marks)
- 8) Give **four** reasons that may necessitate sub soiling to be carried out on a piece of land (2 marks)
- 9) Name any **four** physical methods of water treatment (2 marks)
- 10) Give **three** reasons why green manure is not commonly used (1½marks)
- 11) Name **two** types of labour records that can be kept by a large scale plantation farmer. (1 mark)
- 12) Outline **four** areas that should be avoided when collecting a soil sample for testing (2 marks)
- 13) Differentiate between a seed bed and a seedling bed (1 mark)
- 14) Name **three** field practices that are used to support weak stemmed crops (1½marks)
- 15) Give **four** reasons that would make a farmer chose a jembe during land preparation over a disc plough (2 marks)
- 16) Give a reason why use of organic manure is discouraged in carrot production (1 mark)
- 17) Outline **four** advantages of zero grazing as a system of grazing (2marks)
- 18) Identify **four** sources of credit facilities where one can get capital to carry out crop production (2 marks)
- 19) Name any **three** fertilizer elements (1½ marks)

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

20) The following are photographs of weeds obtained from the farm

**A****B****C****D**

i) Identify the weeds

(2 marks)

- A**.....
- B**.....
- C**.....
- D**.....

ii) State **one** major disadvantage of weed labeled A

(1 mark)

iii) Give **two** reasons why weed C is difficult to control.

(1 mark)

iv) State **one** economic importance of the weed labeled (B) to human beings

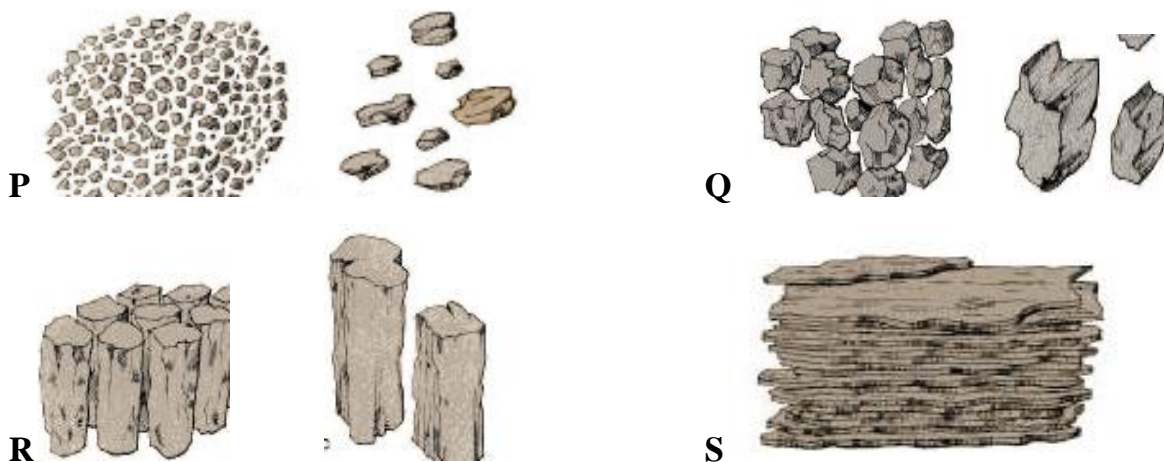
(1 mark)

21) The table below shows weekly demand for rice in am market

Price (ksh)	Quantity demanded (kgs)
10	250
9	350
8	550
7	600
6	700
5	1000
4	1500

- a) Calculate the elasticity of demand (Ed) for rice when the price falls from Kshs. 10 to Kshs. 9 per Kg. (show your working) **(3 marks)**
- b) Other than price state any other factor that may increase the demand for rice in the market **(2 marks)**

22) The following diagrams shows various samples of soil aggregates



- a) Identify the type of soils structures **(2marks)**

**R**

**Q**

**R**

**S**

- b) Briefly explain how soil structures P can be improved **(1mark)**

- c) Name two places where soil structure labeled S can be found **(2 marks)**



- 23) Study the following photographs and use them to answer the question that follows



- Identify the type of irrigation shown in the photograph (1 mark)
- State any **two** advantages of the above method of irrigation (2 marks)
- Other than the one shown above identify any other **two** methods that a farmer can use to irrigate his crops (2 marks)

### SECTION C – 40 MARKS)

**Answer any two questions and answer them in the spaces provided after question 26**

- 24) a) A farmer has 30 hectares of arable land, 20 hectares of which is planted with maize and 10 hectares with grass hay. He wishes to replace 10 hectares of maize with Irish potatoes next year. The fertilizer rate will have to be increased from 2 bags per hectare for maize to 4 bags per hectare for potatoes. As a result of the change extra 40 men days of casual labour per hectare will be necessary at the rate of Kshs. 100 per man a day. The average yield per hectare of maize is 35 bags and for potatoes 120 bags. The price paid is Kshs. 1,000 per bag of maize and Kshs. 600 per bag of potatoes. Maize seeds cost Kshs. 750 per hectare and potatoes cost Kshs. 800 per hectare. Fertilizer costs are Kshs. 650 per hectare.
- Draw up a partial budget and advise the farmer accordingly. (9 marks)
  - Name the other type of budget that can be prepared by a farm manager (1 mk)
- b) Discuss the various problems associated with land fragmentation (6 mks)
- c) Explain **four** environmental factors that affect the effectiveness of herbicides (4 mks)
25. a) Discuss the various cultural practices carried by farmers to control pests (10 marks)
- b) Discuss the production of dry beans under the following headings
- Varieties (2 marks)
  - Selection of planting materials (3 marks)
  - Postharvest practices of dry beans (5 marks)
- 26 a) Describe harvesting of pyrethrum under the following subheading
- Method and procedure (3 marks)
  - Precautions (3 marks)
- b) State **five** characteristics of nitrogenous fertilizers (4 marks)
- c) Explain **five** factors to consider when designing a crop rotation programme (10 mks)

# KCSE 2025 TOP SCHOOLS MOCKS

## **EXAM TRIAL 1**

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 contains **three** sections A, B and C*
- (b) *Answer **ALL** the questions in section A and B*
- (c) *Answer any **Two** questions from section C*
- (d) *All answers should be written in the spaces provided.*

### **FOR EXAMINERS USE ONLY**

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A	1-17	30	
B	18-21	20	
C		20	
		20	
TOTAL		90	

## **SECTION A – 30 MARKS**

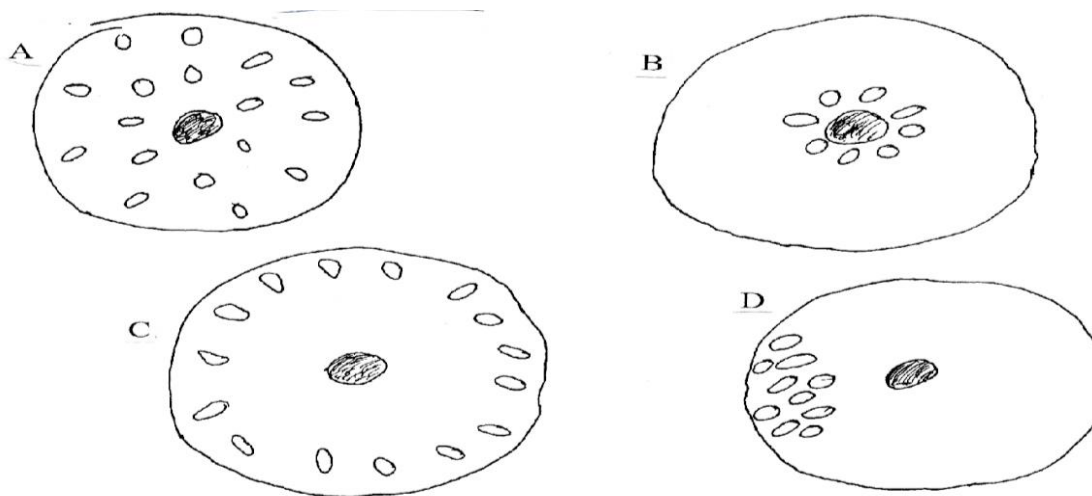
**Answer all questions in this section in the spaces provided**

1. List down two reasons that make Agriculture (2 marks )
  - (i) An art
  - (ii) A science
2. State one use of each of the following farm tools. (2 marks)
  - (i) Mason's trowel
  - (ii) A pair of tin snips
3. Give four reasons why indigenous cattle breeds are more suited to semi-arid areas of Kenya than exotic breeds. (2 marks)
4. Name two functions of calcium in dairy cows. (1 mark)
5. Prepare 100kg pig ration of DCP of 16% using a cereal balancer of 10% DCP and cotton seed cake of 28%DCP. (4 marks )
6. State two ways by which proper feeding contributes to disease control in poultry. (1 mark )
7. Outline four methods used to control Tse-tse flies. (2 mks )
8. (a) What is meant by the terms zero grazing in livestock production? (1 mark )  
(b) What is the duration of oestrous cycle in a cow? (1 mark )  
(c ) If a dairy cow is noticed to be showing first sign of heat at 9.00am. What time should it be inseminated ? (1 mark )
9. Give two reasons why walls of dairy shed should be white washed instead of painting with water or oil paints. (1 mark )
10. Apart from tractor and electricity, name four other sources of power that may be used for doing work on the farm. (2 marks )
11. State two factors that contribute to depreciation of farm tools and equipment. (1 mark )
12. Name four chemical preservatives used to treat the wooden (2 marks )
13. Name two methods of identifying piglets in the farm. (1 mark )
14. Outline four management practices a farmer should undertake to ensure maximum number of fish is harvested from a fish pond. (2 marks )
15. Name two methods of extracting honey from the combs. (1 mark )
16. Name four benefits of a good farm layout. (2 marks )
17. State four symptoms shown by poultry when suffering from Newcastle disease. (2 marks )



**SECTION B – 20 MARKS**

18. The illustration below shows behaviour of chicks in a brooder in response to certain conditions. Study it carefully and answer the questions that follow.



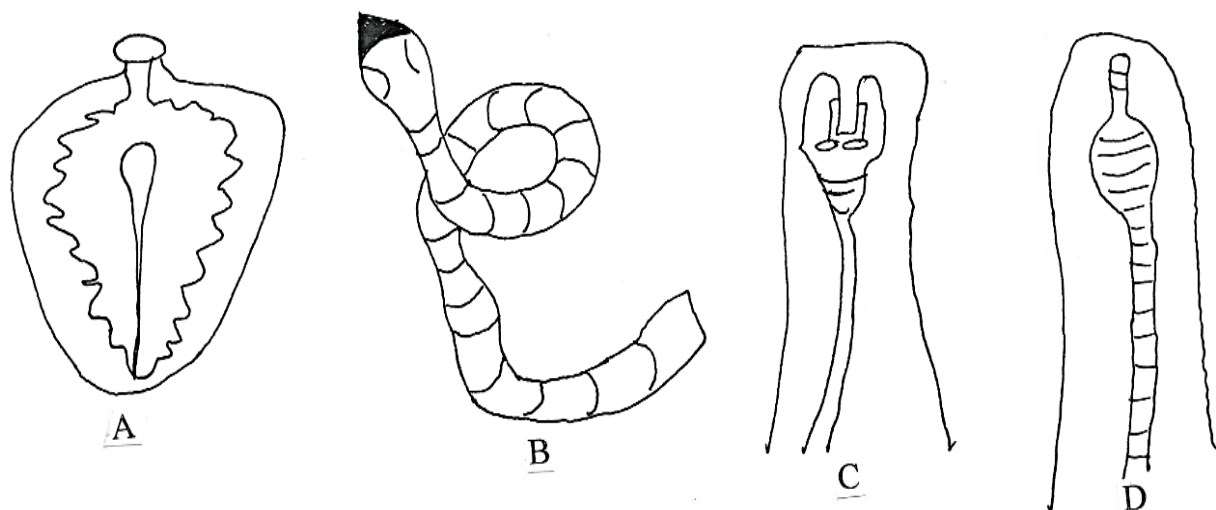
- (a) Explain the reason for the behaviour of chicks in the above diagrams. (4 marks)

A.....  
 B.....  
 C.....  
 D.....

- (b) Give other two signs the chicks will show other than the one you have given in C above. (1 mk)

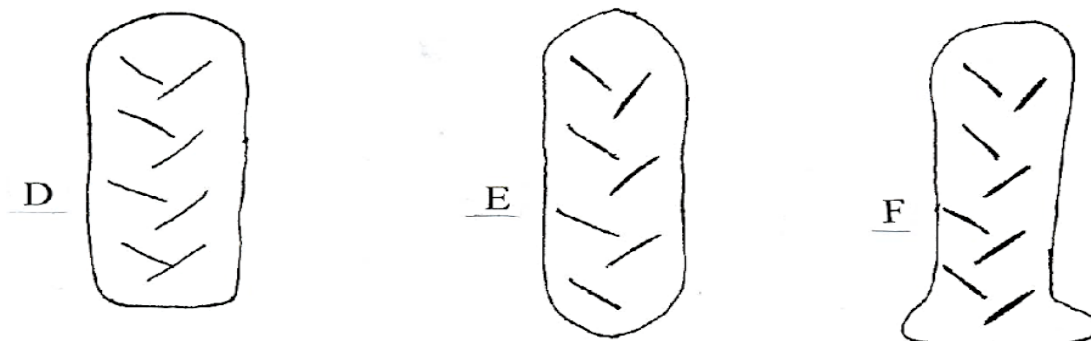
- (c) Outline three necessary conditions required in a brooder. (3 marks)

19. Identify the livestock parasites drawn below.



- (a) Identify the following livestock parasites. A,B and C (3 marks )
- (b) In which organs of livestock are the parasites A, B and C found. (3 marks )

20. The diagram D, E and F below represents different conditions of the tyres.



- (a) Which diagram represents the correct pressure in a tractor tyre? (1 mark)
- (b) (i) Identify the mistakes with the other tyres. (1 mark)
- (ii) Give the correction measure for each tyre mentioned in b(i) above. (1 mark)
21. Give three maintenance practices that should be carried out on a grain storage structure. (3 marks)

### SECTION C – 40 MARKS

Answer any two questions in the spaces provided after the questions

22. (a) Describe construction of a movable calf pen under the following sub-headings.
- (i) Selection and construction materials
- (i) Requirements of a calf pen (12 marks)
- (b) Describe the management of a dairy calf for the first week after calving. (8 marks)
23. (a) Outline any seven factors that would determine the use of jembe instead of use of a disc plough in primary cultivation. (6 marks)
- (b) State seven structural difference between petrol and diesel engines. (14 marks)
24. Explain **ten** management practices that a farmer could carry out to improve milk production in a low yielding dairy cow. (20 marks)

# KCSE 2025 TOP SCHOOLS MOCKS

## **EXAM TRIAL 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) Write your name and index 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 questions in sections **A** and **B**.*
- e) Answer any **two** questions in section **C***

### **FOR EXAMINER'S USE ONLY**

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATES SCORE
<b>A</b>	<b>1 – 14</b>	<b>30</b>	
<b>B</b>	<b>15 - 17</b>	<b>20</b>	
<b>C</b>	<b>18 - 20</b>	<b>20</b>	
		<b>20</b>	
<b>Total Score</b>		<b>90</b>	

**SECTION A: (30MKS)***Answer all the questions in this section*

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. (2 ½ mks)
8. List three ways in which primary cultivation can be achieved. (1 ½ mks)
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)**

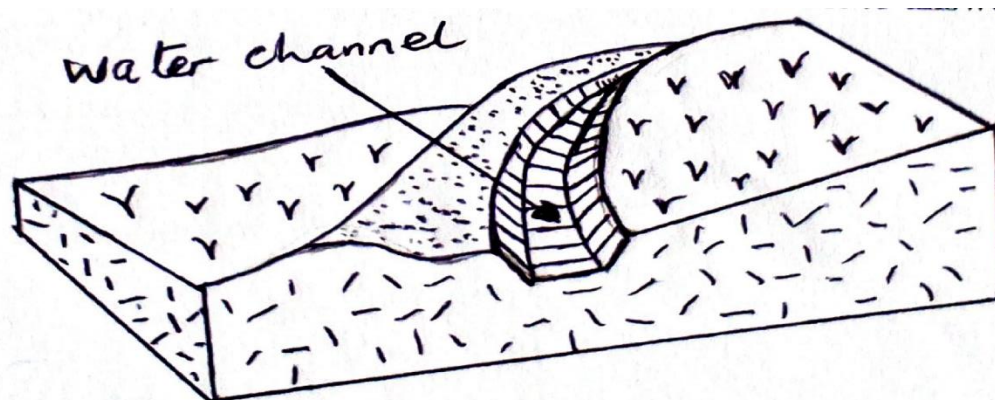
15. Students in an agriculture class set out to investigate the constituents of soil sample from school. They carried out a series of tests on various portions of the sample. They then prepared a table as shown below:

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>

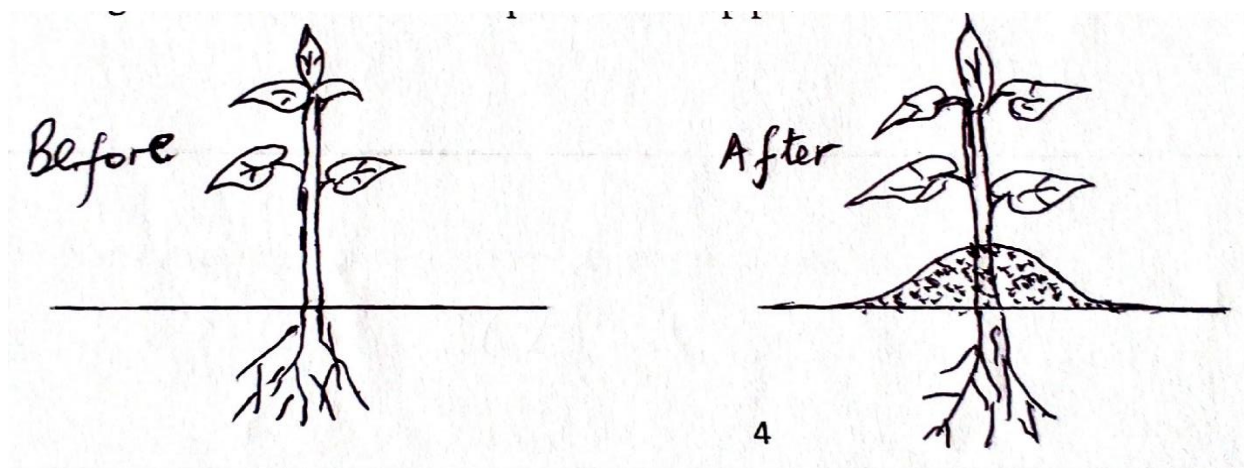
- Calculate the percentage of soil water in the sample. (1mk)
- Why was soil heated at 105°C? (1mk)
- Calculate the percentage of soil air in the sample? (1mk)
- Calculate the percentage of soil organic matter in the sample. (1mk)
- Name one other soil constituent not tested above. (1mk)

16. The diagram below shows a construction on farm. Use it to answer the questions that follow.



- Identify the above structure. (1mk)
- State four areas where water in the channel is directed to: (4mks)

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



- Identify the practice. (1mk)
- State two advantages of the practice named in (a) above to Irish potatoes. (2mks)
- 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 MOCKS

## **EXAM TRIAL 2**

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 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 questions in sections **A** and **B**.*
- e) Answer any **two** questions in section **C***

### FOR EXAMINER'S USE ONLY

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATES SCORE
<b>A</b>	<b>1 – 16</b>	<b>30</b>	
<b>B</b>	<b>17 - 19</b>	<b>20</b>	
<b>C</b>	<b>20 - 22</b>	<b>20</b>	
		<b>20</b>	
<b>Total Score</b>		<b>90</b>	

**SECTION A: (30 MARKS)**

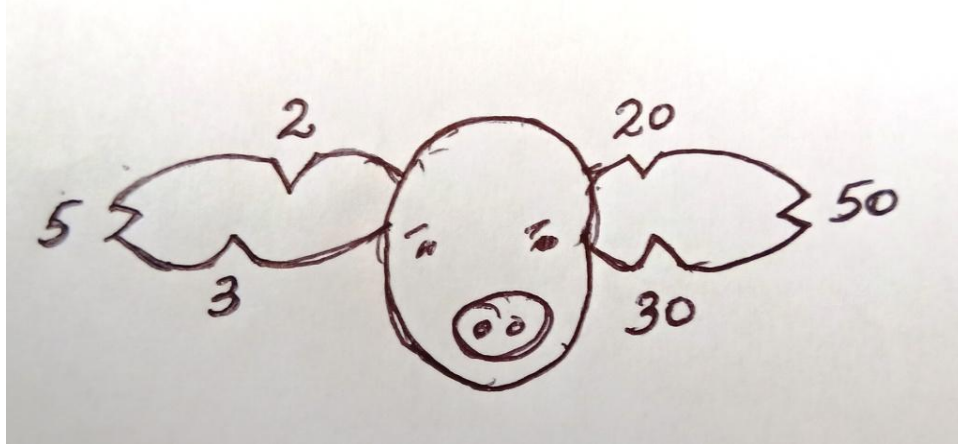
*Answer all the questions in this section*

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 -  $\frac{1}{2}$  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  $\frac{1}{2}$  mk  
(ii) Proper feeding -  $\frac{1}{2}$  mk  
(iii) Quarantine -  $\frac{1}{2}$  mk  
(iv) Vaccination -  $\frac{1}{2}$  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)**

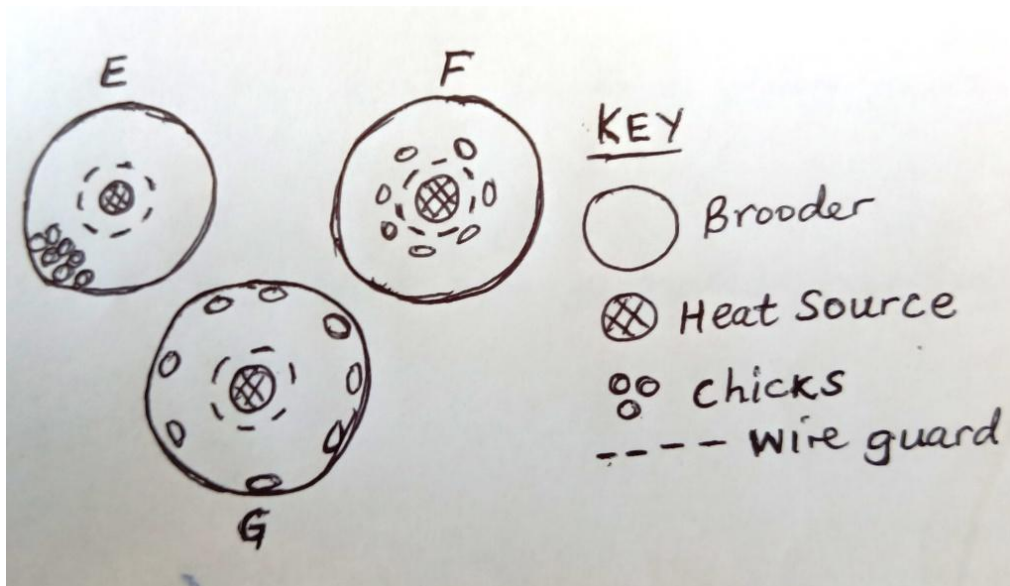
17. (a) A farmer was advised to prepare 180kg of calf ration containing 20% DCP. Using pearsons square method, calculate the amount of maize containing 10% DCP and sunflower containing 40% DCP the farmer needs to use. Show your working. (4 mks)  
(b) State two factors considered when formulating a livestock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

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



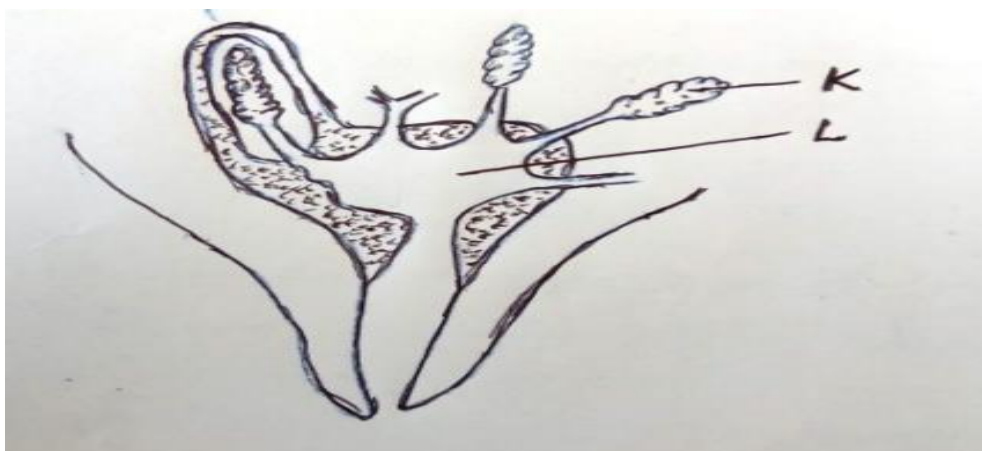
- (a) Name the type of identification illustrated above. (1 mk)
- (b) Give the identification number of the pig illustrated above. (1 mk)
- (c) Using a diagram, illustrate how animal number 83 can be identified using the above method. (2 mks)
- (d) What is the use of metal rails in a farrowing pen. (1 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)
- (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)

# KCSE 2025 TOP SCHOOLS MOCKS

## **EXAM TRIAL 3**

443/1

# **AGRICULTURE**

**PAPER 1**

**TIME: 2 HOURS**

NAME.....

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

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

*Kenya Certificate of Secondary Education.*

### **INSTRUCTIONS**

- a) Write your name and index 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 questions in sections **A** and **B**.*
- e) Answer any **two** questions in section **C***

### **CANDIDATE SCORE**

	QUESTIONS	MAXIMUM SCORE	CAND.SCORE
A	1-20	30	
B	21-25	20	
C	26	20	
	27	20	
	28	20	
	<b>TOTAL</b>	<b>90</b>	

### **SECTION A (30MKS)**

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

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

**SECTION B (20MKS)**



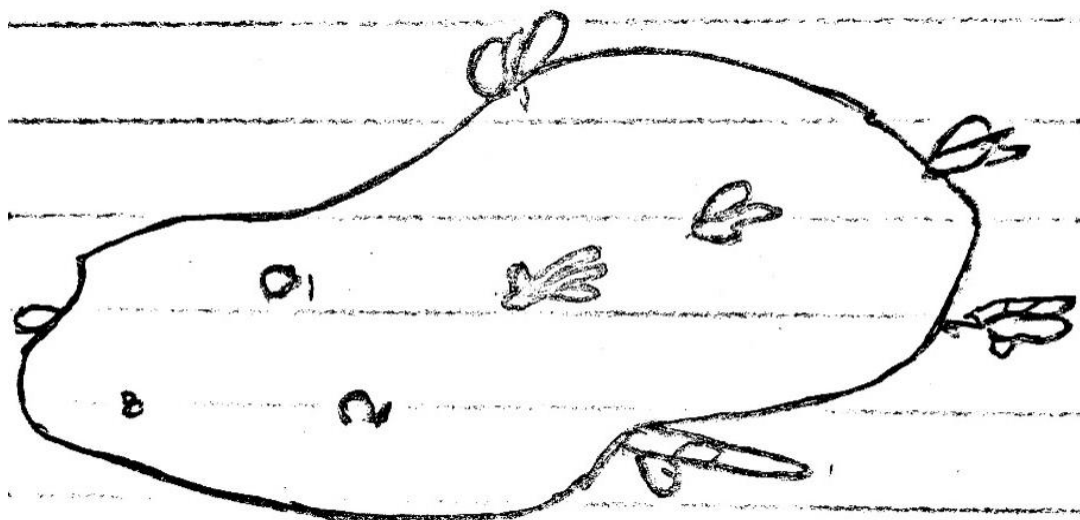
**Answer all questions in this section**

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

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

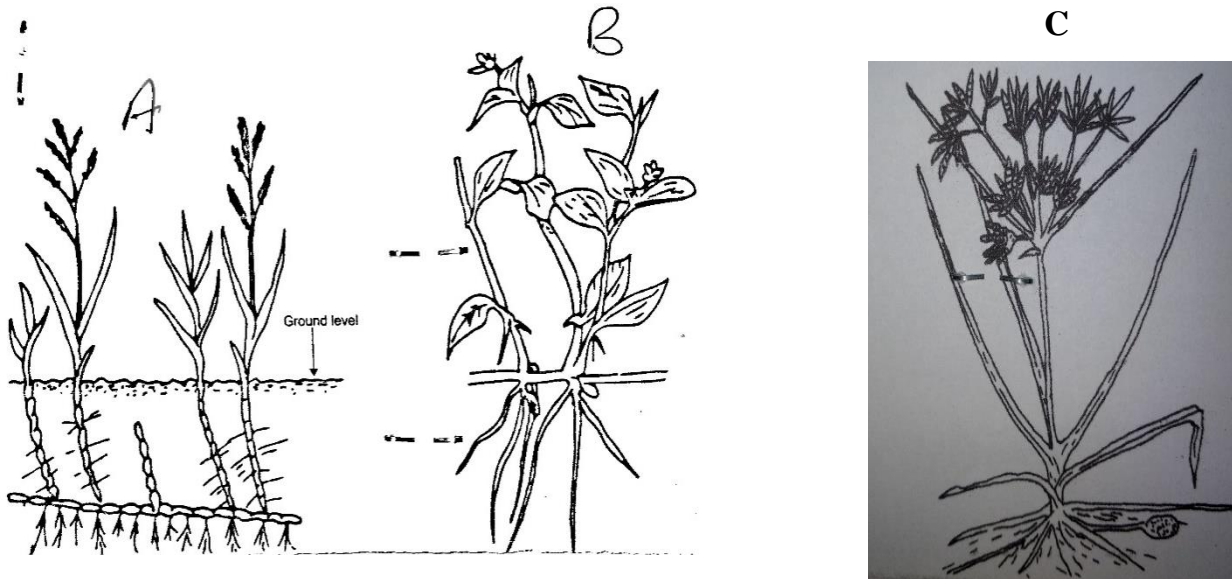
- a) Which soil sample has the highest acidity (1mk)
- b) Which soil sample has the lowest alkalinity (1mk)
- c) State two ways in which the PHvalue of sample 3 can be raised (2mks)
- d) Which of the above soil sample is suitable for growing maize (1mk)

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



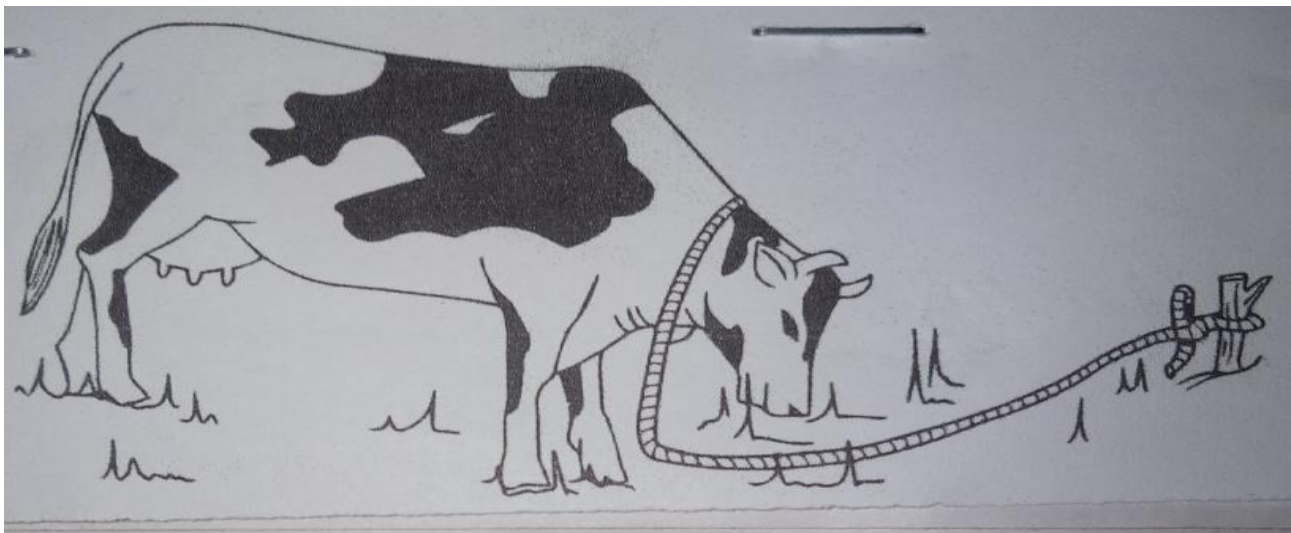
- a) Name the practice used in preparing the seed potato above for planting (1mk)
- b) Describe the procedure followed in preparing seed potatoes for planting. (8mks)

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



- Identify the weeds A, B and C (3mks)
- State one reason why weed A is difficult to control (1mk)
- State one economic use of weed B (1mk)

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



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

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



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

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

*Answer any two questions only from this section*

26. a) Explain five ways in which biotic factors influence crop production in Agriculture (10mks)
- b) Explain four ways in which Government policy improves agricultural production (4mks)
- c) Describes the properties of Nitrogenous fertilizer (6mks)
27. a) Describe the effects of pests on Beans in the field (4mks)
- b) Describe the production of cabbage under the following seed headings.
- i. Seed bed preparation (3mks)
  - ii. Transplanting of seedlings (4mks)
- c) Describe various nursery management practices carried out on cabbage seeding in the nursery (5mks)
- d) Describe how water is treated to remove solid impurities (4mks)
28. a) Describe five ways in which a grass cover help to conserve soil (5mks)
- b) Describe maize production under following sub-headings.
- i. Land preparation (3mks)
  - ii. Planting (6mks)
  - iii. Field management practices (6mks)

# **KCSE 2025 TOP SCHOOLS MOCKS**

## **EXAM TRIAL 3**

**443/2**

# **AGRICULTURE**

**PAPER 2**

**TIME: 2 HOURS**

NAME.....

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

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

*Kenya Certificate of Secondary Education.*

### **INSTRUCTIONS**

- ✓ *This paper consist of three sections A, B and C*
- ✓ *Candidate to answer all questions in section A and B*
- ✓ *Answer any two questions only in section C on the booklet provided.*

### **CANDIDATE SCORE**

	QUESTIONS	MAXIMUM SCORE	CAND.SCORE
A	1-14	30	
B	15-18	20	
C	19	20	
	20	20	
	21	20	
	TOTAL	90	

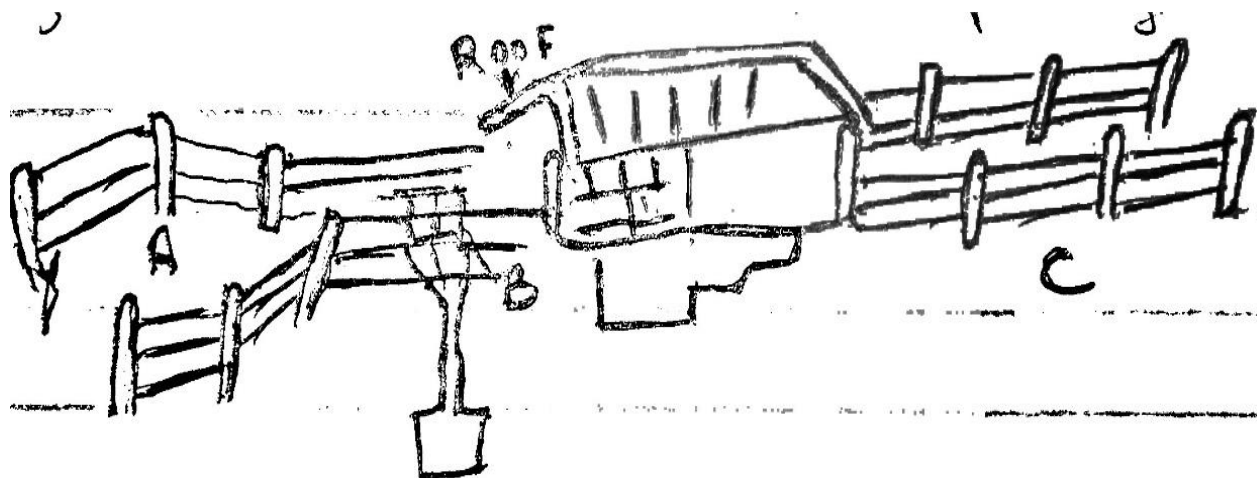
### **SECTION A (30MKS|)**

Answer all questions in this section on spaces provided.

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

SECTION B (20MKS)Answer all the questions from this section.

16. Diagram below show a plunge dip.

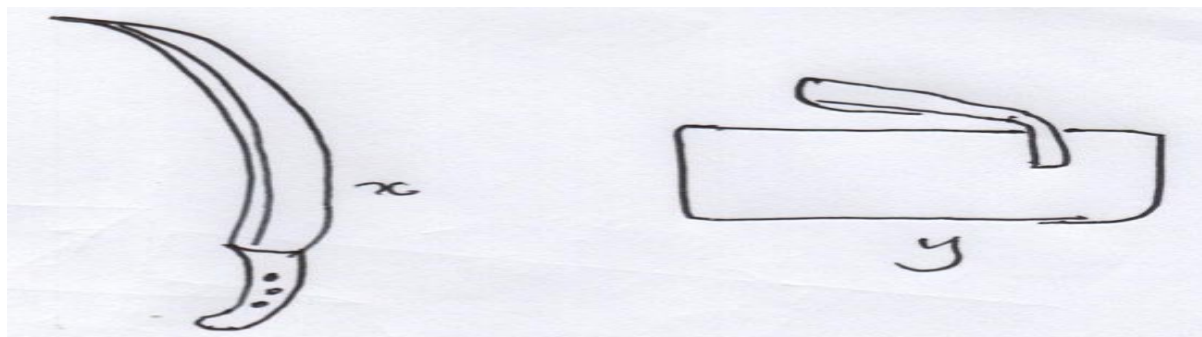


- a) Using a arrow on the diagram show the movement of cattle (½mk)



- b) State one use of parts A, B and C (3mks)
- c) State two precautions a farmer should take on dip to ensure effective dipping (2mks)
- d) State two uses of the roof of the dip (2mks)
- c) Apart from use of acaricides explain other methods used to control ticks (3mks)

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



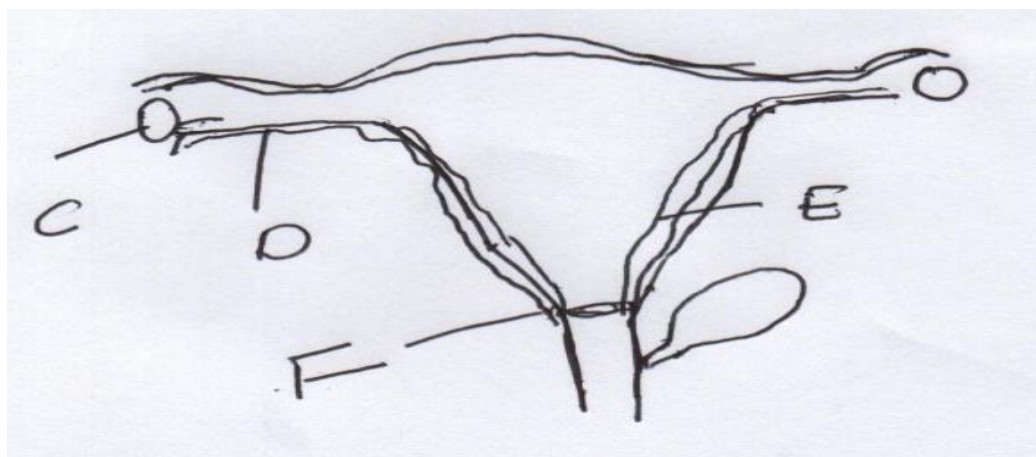
X .....

Y .....

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

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

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



- i. Name the part marked (1mk)



**D****F**

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

**C****E**

b) At what stage should a gilt be mated? (1/2mk)

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

*Answer ONLY TWO questions on answer booklets provided.*

**19.a)** Explain features of ideal calf pen (6mks)

b) Outline various feeding practices a farmer undertake on calves up to weaning (8mks)

c) Describe uses of water in the animals body (6mks)

**20.a)** Describe mastitis disease under the following sub-headings

**i.** Causal organism (1mk)

**ii.** Disease pre-disposing factors (4mks)

**iii.** Symptoms (3mks)

**iv.** Control measures (6mks)

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

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

b) Name three types of fences (3mks)

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

# KCSE 2025 TOP SCHOOLS MOCKS

## **EXAM TRIAL 4**

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 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 questions in sections **A** and **B**.*
- e) Answer any **two** questions in section **C***

### **FOR EXAMINER'S USE ONLY**

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATES SCORE
A	1 – 20	30	
B	21 - 26	40	
C	27-29	20	
Total Score		90	

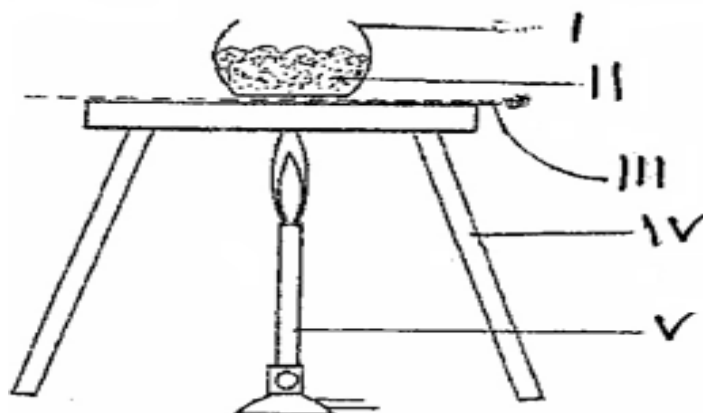
**SECTION A**

*Answer ALL questions from this section*

1. State **two** methods which can be used to detect mineral deficiency in crops. (1mk)
2. State **two** conditions under which shifting cultivation is favourable. (1mk)
3. State **two** conditions under which seeds are seeded at a high seed rate. (2mks)
4. State **three** ways in which trees improve soil fertility. (1 1/2 mks)
5. Give **three** causes of hardpans in cultivation. (1 1/2 mks)
6. Under what **two** conditions does opportunity cost not exist? (1mk)
7. Give **two** roles of additives in silage making. (1mk)
8. Outline **four** advantages of mixed farming. (2mks)
9. Give **three** reasons why bulbils make good planting materials than suckers. (2mks)
10. Give **three** reasons why agriculture is defined as a science. (1 1/2 mks)
11. Give **four** characteristics of large scale farming system. (2mks)
12. State **four** farming practices which help to improve soil structure. (2mks)
13. Give **four** effects of top dressing on a pasture. (2mks)
14. What are the two reasons for inoculating legume seeds before planting. (1mk)
15. State **two** advantages of carrying out pruning in banana production. (1mk)
16. In maize hybrid 614 what do the following figures stand for? (1mk)
  - (i) 6.....
  - (ii) 4.....
17. Give **two** ways in which pastures are classified. (1mk)
18. Name **four** practices carried out to improve and maintain permanent pasture. (2mks)
19. Give **four** advantages of tissue culture. (2mks)
20. Give **three** stages of controlling devils horsewhip by mechanical means. (1½ marks)

**SECTION B**

21. The diagram below shows a set up of apparatus for finding the percentage of humus contents in a soil by ignition.



(a) Label the apparatus.

(2 marks)

I.....

II.....

III.....

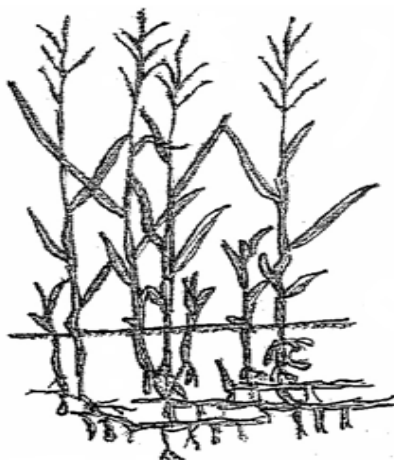
IV.....

(b) Outline the steps followed in carrying out the illustrated experiment.

(3 marks)

22.

G



H



(i) Identify the weeds above. (2 marks)

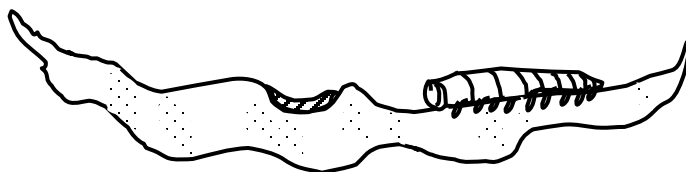
G .....

H .....

(ii) State the economic importance of the weed shown in diagram G. (2 marks)

(iii) Why is it difficult to control weed in diagram G? (1 mark)

23. Study the pest below and answer the questions below.



(a) Identify the pest (1 mark)

(b) State two methods of controlling the pest. (2 marks)

(c) Name the crops attacked by the pest. (2 marks)

24. The diagram below illustrates a field management practice in tomatoes

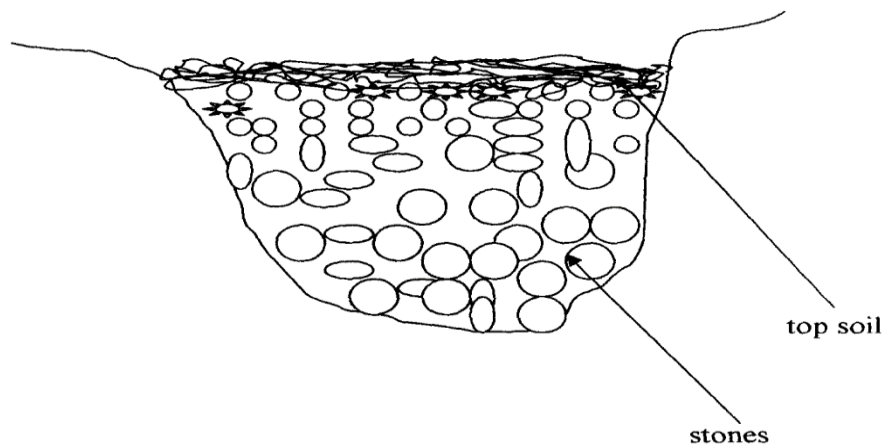


(i) Identify the practice (1 mark)

(ii) State three reasons for carrying out the practice. (3 marks)

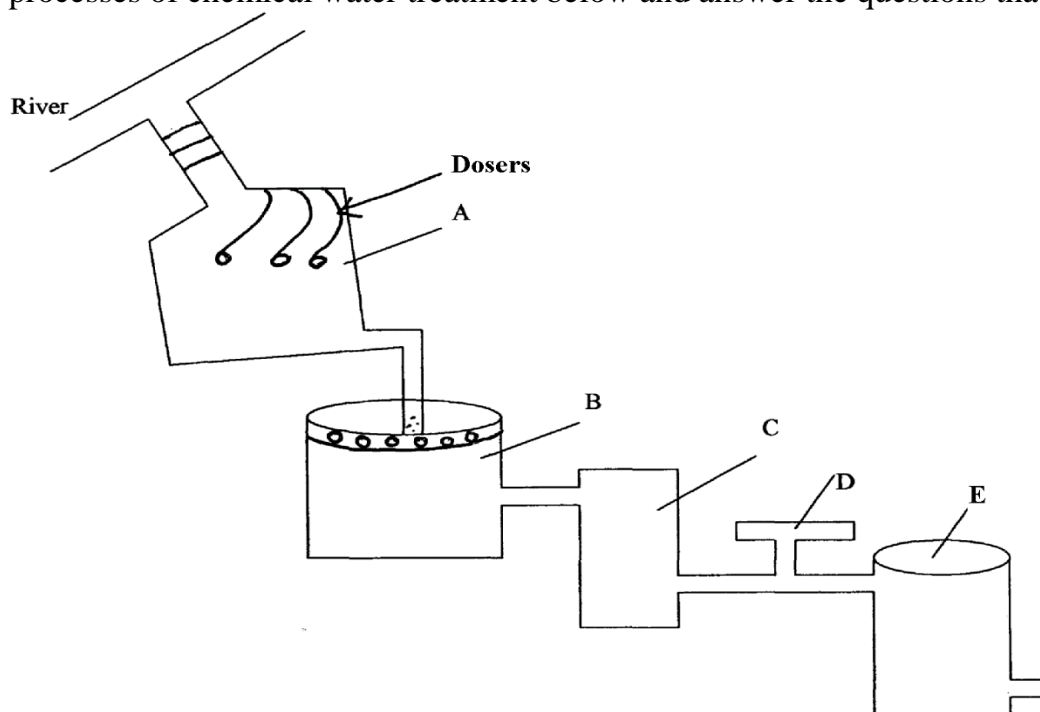
(iii) Give another practice that could be carried out to give the same results. (1 mark)

25. Study the diagram below then answer the questions that follow:



- (a) Identify the method of drainage above. (1mk)
- (b) State other **three** methods used to drain swampy areas. (3mks)
- (c) Give **four** importance of drainage. (4mks)

26. Study the processes of chemical water treatment below and answer the questions that follow:



- (a) Identify the parts labeled: (2mks)

A.....

B.....

C.....

D.....



- (b) State **two** chemical substances added at part labeled B and give their functions. (2mks)
- (c) State **two** factors which influence the quantity of the chemical used in part labeled D.(2mks)
- (d) State **three** uses of water in crop production. (3 mks)
- (e) State **three** types of production functions in agriculture. (3mks)

### **SECTION C (20MKS)**

- 27.(a) Describe the cultural methods of weed control in crop production. (10mks)
- (b) Describe the harmful effects of pests on crops (10mks)
- 28.(a) Discuss the human factors which influence agriculture. (10 marks)
- (b) Explain **five** factors to consider when choosing the planting time. (10 marks)
- 29.Describe the production of carrots under the following sub headings
- a) Seedbed preparation (3 marks)
- b) Harvesting (4 marks)
- c) Explain five cultural methods of weed control in beans production. (10 marks)
- d) Outline three roles of sulphur in crop production. (3 marks)

# KCSE 2025 TOP SCHOOLS MOCKS

## **EXAM TRIAL 4**

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 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 questions in sections **A** and **B**.
- e) Answer any **two** questions in section **C**

### **FOR EXAMINER'S USE ONLY**

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATES SCORE
A	1 – 29	40	
B	30 - 35	30	
C	36 - 38	20	
Total Score		90	

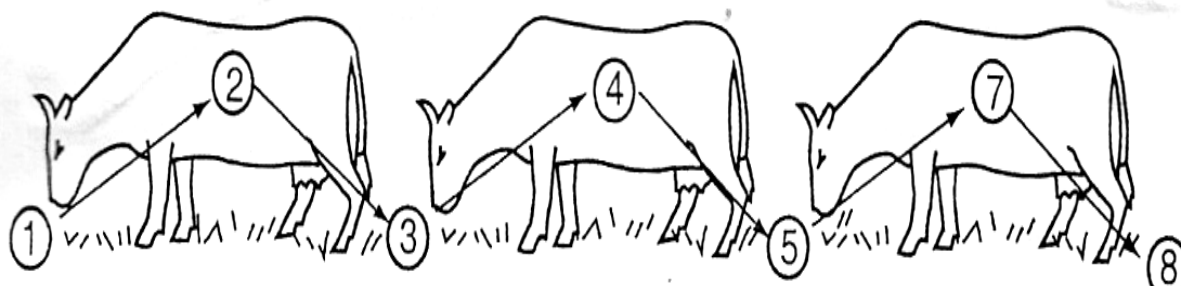
**SECTION A (30 Marks)***Answer ALL questions from this section*

1. What is apiculture? (1 mark)
2. Name one livestock disease that is transmitted by the following parasites.
  - (a) Brown ear tick (½ mark)
  - (b) Tsetse fly (½ mark)
3. State the intermediate host for liver fluke *Fasciola* spp. (½ mark)
4. State four breeds of rabbits. (2 marks)
5. State two functions of a crop in a digestive system of chicken. (1 mark)
6. State three ways of restraining cattle (1½ marks)
7. State two livestock diseases caused by virus. (1 mark)
8. State two types of selection practiced by livestock farmers (1 mark)
9. State three ways of preventing predation in a fish pond (1mark)
- 10.State four functions of feed additives in livestock production. (2 marks)
- 11.State two types of calf pens. (1 mark)
- 12.State advantages of embryo transplant. (2 marks).
- 13.State two roles of testis in male reproductive system. (1 mark)
- 14.Differentiate between mothering ability and prolificacy (2 marks)
- 15.State three ways in which feeding contributes to disease control. (1½ marks)
- 16.State two functional differences between rumen and abomasums. (2marks)
- 17.Name four practices carried out in the crush (2 mks)
- 18.Give three dual purpose cattle breeds (1½ mks)
- 19.Give three terms used to describe the following: - (1½ mks)
  - (i) Mature male pig.....
  - (ii) Sterilised birds .....
  - (iii) Mature female goat .....
- 20.State four reasons for identifying farm animals (2mks)
- 21.State two factors that determine the quality of honey (1mk)

22. Give four categories of livestock diseases (2 mks)
23. Name three tools used for plumbing (1½ mks)
24. State two maintenance practices carried out on an ox-drawn plough (1 mk)
25. List two sources of farm's power which are environmental friendly (1 mk)
26. State four functions of the lubricating system in a tractor (2mks)
27. State two conditions under which a farmer would prefer to use an ox-cart instead of a tractor-drawn trailer (1mks)
28. State four qualities considered when selecting a heifer for dairy purposes (1mks)
29. Give one role of a damp proof course in the foundation of a farm building (1mk)

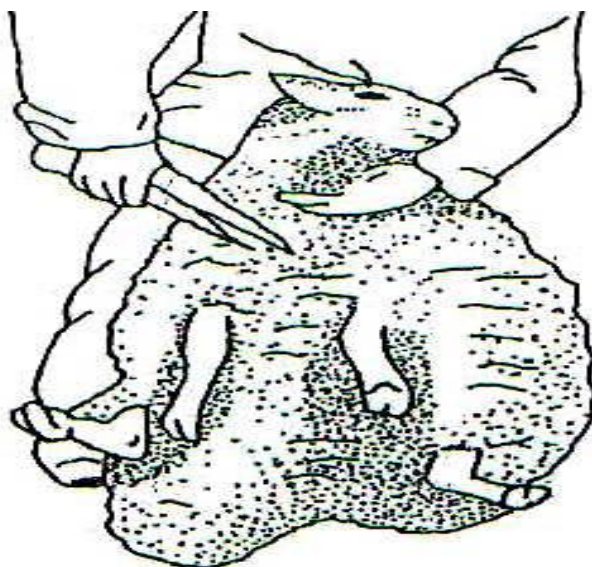
### SECTION B (30MKS)

30. The illustrations below represent the stages of development of a three-host tick. Study it carefully and then answer the questions that follow:



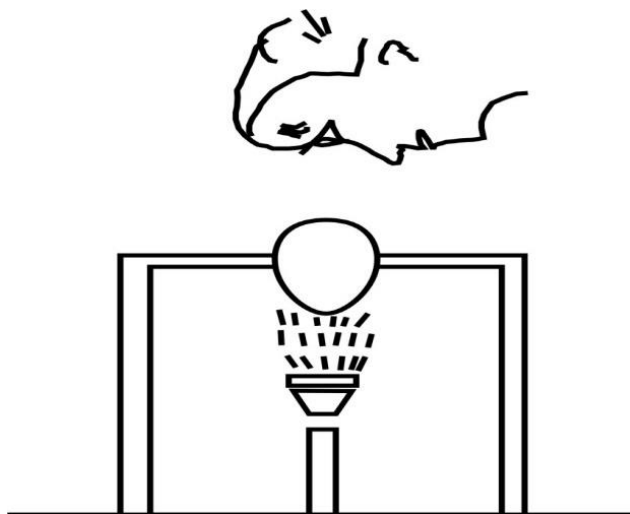
- (a) Briefly explain what is happening in the following stages (4 marks)
- 1.....
- 4.....
- 5.....
- 7.....
- (b) Why do you think that tick control is difficult using acaricides? (1 mark)
- (c) Name the most common sites the tick can be found on the body of an animal. (2 marks)
- (d) Give two examples of a three host tick (1mark)

31. The diagram below illustrates a certain practice carried out in sheep management. Study carefully and answer the questions that follow



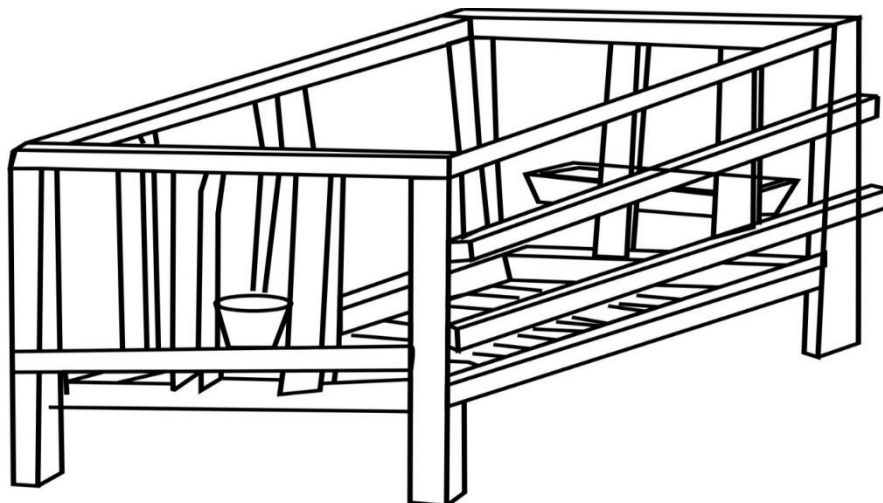
- (i) Identify the practice illustrated above (1mark)
- (ii) State two precautions a farmer should put into consideration when carrying out this practice. (2marks)
- (iii) How often should the practice be carried out? (1mark)

32. Below is an activity carried out in poultry production. Study it carefully then answer the questions that follow.



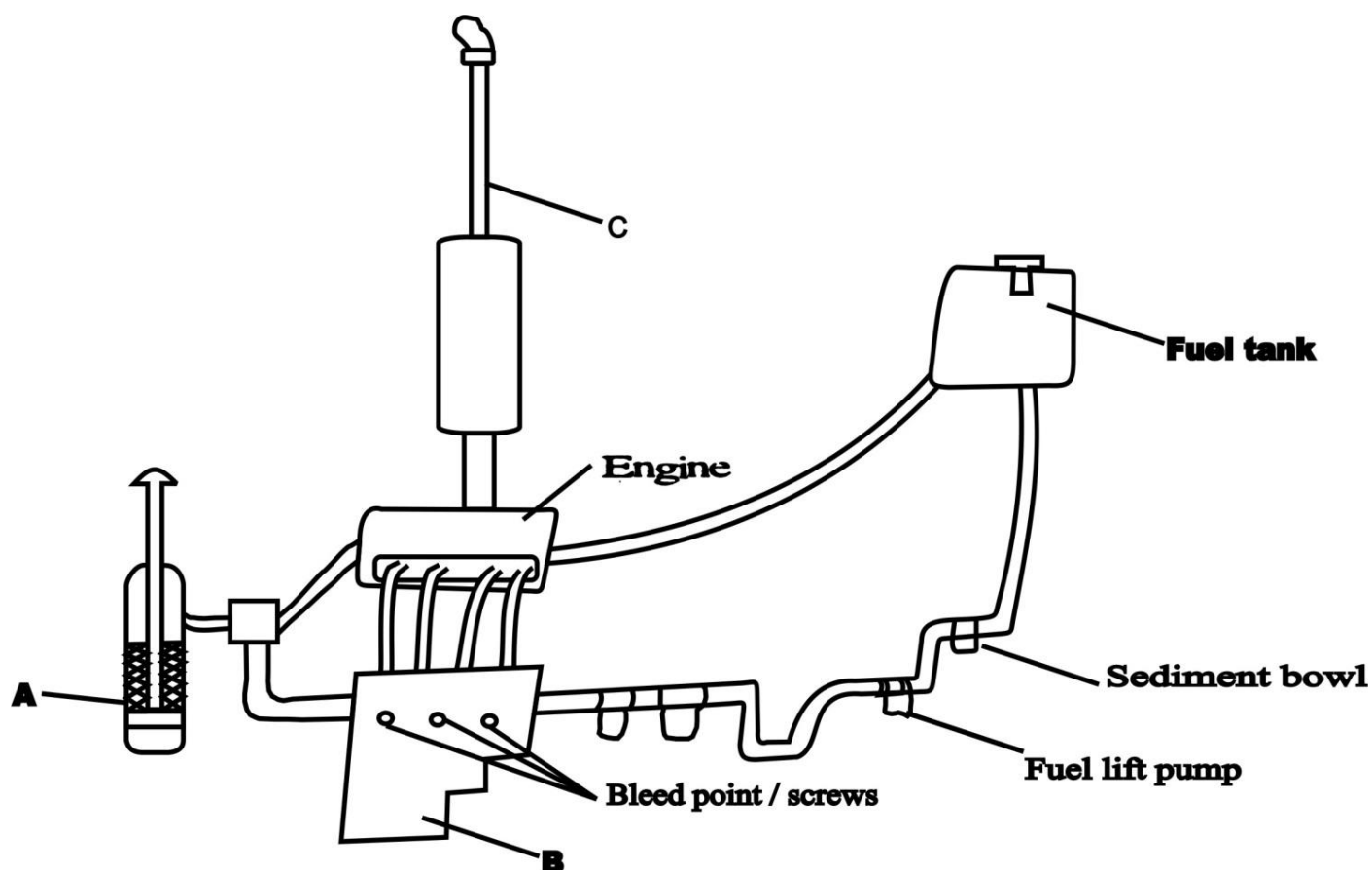
- a) Identify the practice being carried out..... (1 mk)
- b) State three defects that can be detected by this practice (3 mks)
- c) State two disadvantages of artificial incubation. (2 mks)

33. Use the above diagram of a calf pen to answer the questions that follow.



- a) How high should the calf pen be raised from the ground (1mk)
- b) Give any two reasons why calves are housed singly (2mks)
- c) Why should the calf pen be near the milking parlour? (2mks)

34. Study the diagram below of a diesel fuel system then answer the questions that follow.





a) Identify the parts labelled (3 mks)

A.....

B.....

C.....

b) State three maintenance practices carried out on the system (2mks)

**35.** Outline the procedure of proper milking technique (3 mks)

### **SECTION C (20MKS)**

**36.a)** Outline five signs of heat in a cow (5 mks)

b) Outline five causes of stress in poultry and describe their control (10mks)

c) Using Pearson's square compute a ration with 20% DCP from oats which contains 10% DCP and simsim seedcake containing 60% DCP. (show your working) (5mks)

**37.a)** Outline the daily maintenance practices that should be carried out on a farm tractor (8 mks)

b) Outline twelve general symptoms of endoparasite attack in livestock. (12 mks)

**38.a)** State four advantages of using a sub soiler in seedbed preparation (4mks)

b) Give five advantages of artificial insemination in cattle **management** (5mks)

c) State five function of water in animal's body (5mks)

d) Describe control measures for tape worm in livestock (6mks)

# KCSE 2025 TOP SCHOOLS MOCKS

## **EXAM TRIAL 5**

443/1

# **AGRICULTURE**

**PAPER 1**

**TIME: 2 HOURS**

NAME.....

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

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

*Kenya Certificate of Secondary Education.*

### **INSTRUCTIONS TO STUDENTS**

- (a) Write your name and index number in the spaces provided at the top of this page.
- (b) Sign and write the date of the examination in the spaces provided.
- (c) This paper consists of three sections: **A**, **B** and **C**.
- (d) Answer all questions in sections **A** and **B**.
- (e) Answer any two questions in section **C**.
- (f) The photographs must be coloured.

### **FOR EXAMINER'S USE ONLY**

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

**SECTION A- (30 MARKS)**

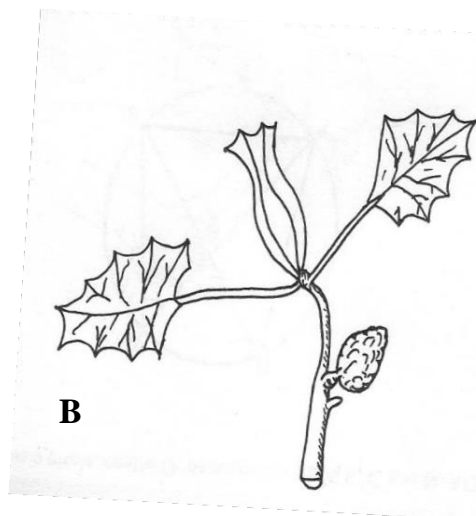
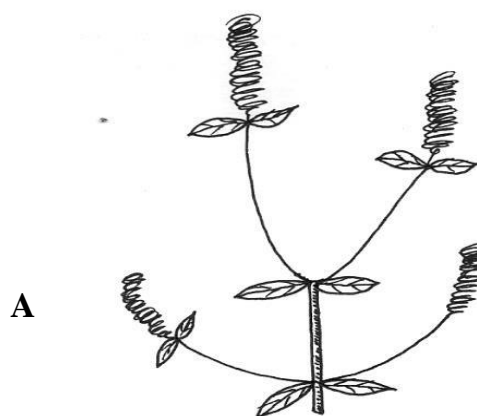
*Answer all questions in the spaces provided*

1. State **two** reasons why farmers should be encouraged to practice organic farming (1mk)
2. State **two** ways in which crop rotation controls **weeds** (1mk)
3. Name two methods of sowing pasture **crops** (1mk)
4. State **four** qualities considered when selecting seeds for **planting** (2mks)
5. State **four** advantages of crop rotation (2mks)
6. State **three** physical agents of weathering in soil formation (1 ½ mks)
7. Give **three** properties of a foliar fertilizer which makes it possible to be used as a foliar  
Feed (1 ½ mks)
8. Give **three** reasons why Banana should be **pruned** (1 ½ mks)
9. State **four** factors considered when classifying crop **pests** (2mks)
10. Give **four** reasons for land **fragmentation** (2mks)
11. State **two** mechanical methods used in separating soil in soil analysis (1mk)
12. State **three** ways in which inorganic fertilizers are classified (1 ½ mks)
13. State **three** effects of raindrops on bare **soil** (1 ½ mks)
14. Give **three** reasons why layering would be preferred to the use of cutting as a method of  
raising planting **materials** (½ mks)
15. State the forms in which nitrogen is absorbed by plants (1mk)
16. Outline **four** factors which effect herbicidal **selectivity** (2mks)
17. State **four** natural factors that may influence soil **erosion** (2mks)
18. Name four disadvantages of zero **grazing** (2mks)
19. Outline **four** factors which encourage soil erosion (2mks)

## SECTION B (20 MKS)

*Answer ALL Questions in this section*

20. Below are illustrations of common weeds. Study them and answer the questions that follow



(a) Identify the weeds

(2mks)

A..... B.....

(b) State the harmful effects of the weed B above

(1mk)

(c) Give **four** advantages of leasehold tenure systems

(2mks)

21. Describe the procedure which should be followed when spraying a crop of onions using a

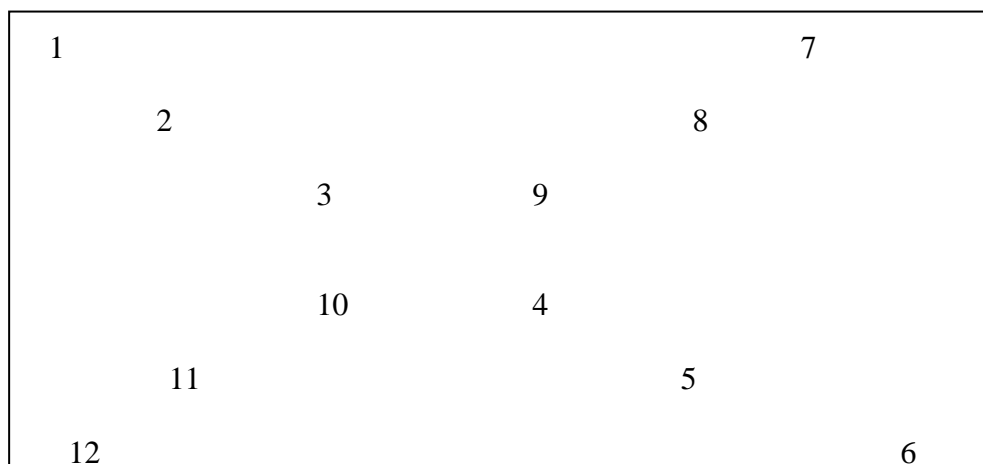
fungicide in powder form, water and a knapsack sprayer

(5mks)

22.. (a) What is soil sampling?

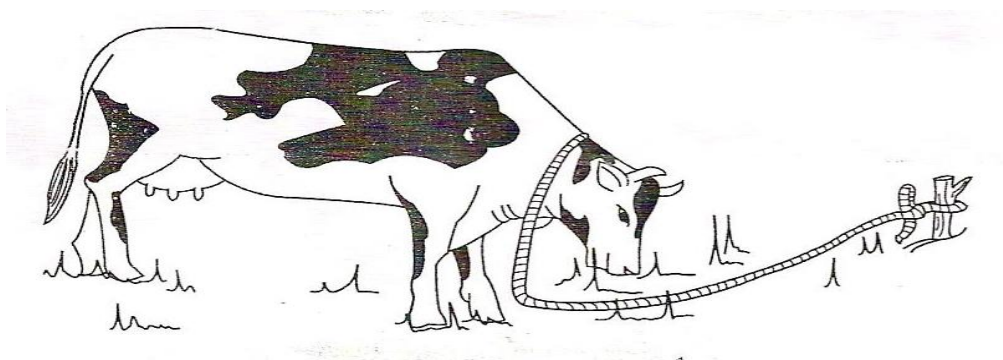
(1 mark)

(b) Below is a method of soil sampling. Use it to answer the question that follow.



- (i) What method of soil sampling is represented above? (1 mark )
- (ii) name the other method of soil **sampling** (1mark)
- (iii) Outline **three** areas which should be avoided during soil sampling. (3 marks )

23. . Identify the rotational grazing system shown **below** (1mk)



b) Give the **FOUR** advantages of the system named above (4mks)

### SECTION C (40MKS)

*Answer any two Questions in this section*

24.(a) Describe harvesting of pyrethrum under the following sub-headings

- (i) Procedure (4mks)
- (ii) Precautions (6mks)
- (b) Describe the safety measures observed when handling farm herbicides (10mks)

25. Describe the production of Rhodes grass (*Chloris gayana*) under the following sub-headings

- (a) Land preparation (5mks)
- (b) Pasture establishment (8mks)
- (c) Maintenance (7mks)

26. .(a) Discuss the production of beans under the following sub headings

- (i) Land preparation (4mks)
- (ii) Varieties (2mks)
- (iii) Selection and preparation of planting materials (5mks)
- (iv) Field management practices
- (b) Explain the method and procedure of harvesting of sugarcane (4mks)

# **KCSE 2025 TOP SCHOOLS MOCKS**

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

### **FOR EXAMINER'S USE ONLY**

Section	Question	Maximum Score	Candidates Score
A	1 -16	30	
B	17 -20	20	
C		20	
		20	
		90	



**SECTION A (30 Marks)**

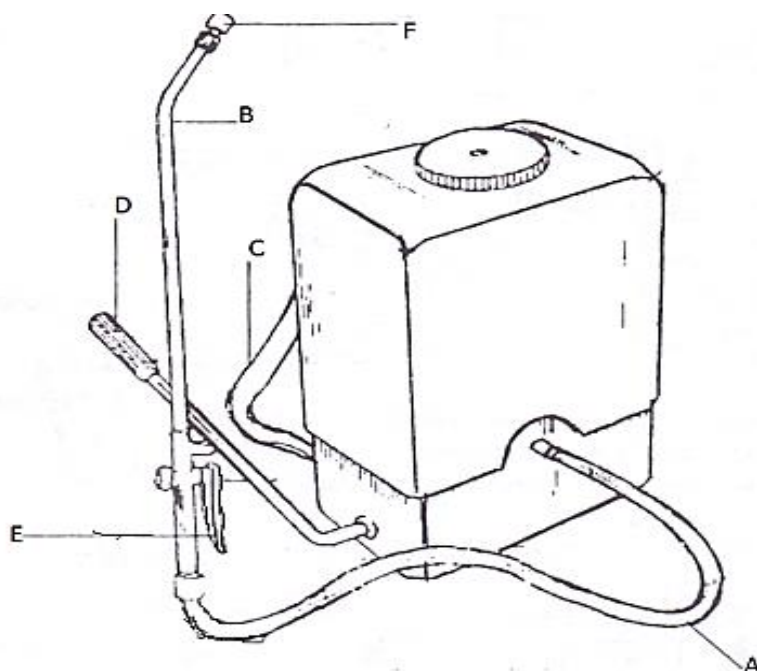
**Answer all questions in this section in the spaces provided.**

1. Name four meat breeds of rabbits. (2mks)
2. The following is a list of livestock diseases.  
Brucellosis  
Trypanosomiasis  
Newcastle  
Anthrax  
African swine fever  
Black guater  
Which of the two diseases  
(a) Are both bacterial and zoonotic. (1mk)  
(b) Highly infectious (1mk)
3. State four qualities of marketable eggs. (2mks)
4. Mention four reasons for treating timber before using on farm structures. (2mks)
5. List four sources of power in the farm. (2mks)
6. State four advantages of embryo transplant in cattle. (2mks)
7. Give four circumstances under which a farmer would use an ox-drawn cart instead of a tractor drawn trailer on the farm. (2mks)
8. State four factors that would contribute to the depreciation of farm equipment. (2mks)
9. List two tools used for each of the following farm operations.  
(i) Tightening barbed wires during fencing. ( ½ mk)  
(ii) Smoothing concrete floors during plastering ( ½ mk)
10. State four advantages of deep litter system in poultry rearing. (2mks)
11. State four ways of preventing mastitis in lactating cattle. (2mks)
12. State four factors to be considered when selecting heifers for milk production. (2mks)
13. State four features of a good maize store. (2mks)
14. State four methods that a farmer can employ to ensure maximum power output from animal power. (2mks)
15. State four advantages of artificial incubation in poultry rearing. (2mks)
16. Give two reasons for flushing in sheep management. (1mk)

**SECTION B (20 Marks)**

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

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



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

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

**E**..... (1mk)

**F**..... (1mk)

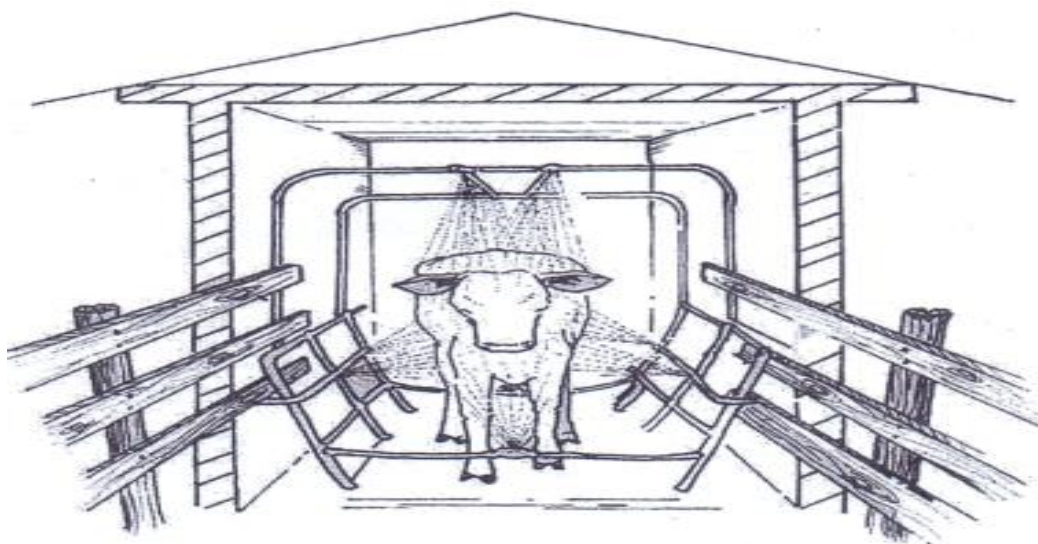
(c) Give one use of the above equipment. (1mk)

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



- (a) What practice is represented above? (1mk)
- (b) Which illustrated shows the right way of carrying out the practice. (1mk)
- (c) State three reasons for carrying out the practice in poultry. (3mks)

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



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

20. Fill the table below for the following diseases.

Disease	Cause	Characteristic/Symptom	Preventive measures
Coccidiosis			
Blackquater			vaccination
Rinderpest	virus		
Milk fever			

(5mks)

### SECTION C (40 Marks)

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

- 21 (a)** Explain eight factors that influence the composition of milk in a dairy cow. **(8mks)**
- b)** Outline six causes of cannibalism in poultry. **(6mks)**
- c)** Explain six uses of fences in the farm. **(6mks)**
- 
- 22 (a)** Describe New castle disease under the following sub-headings.
- (i)** Causal organism **(1mk)**
- (ii)** Animal affected **(1mk)**
- (iii)** Symptoms **(5mks)**
- (iv)** Control measures. **(3mks)**
- b)** Describe the principle operation of four-stroke cycle engine. **(10mks)**
- 
- 23 (a)** Outline five signs of parturition in cattle. **(5mks)**
- b)** State five reasons for carrying out inbreeding in livestock production. **(5mks)**
- c)** Give five effects of parasites on livestock. **(5mks)**
- d)** Describe the difference between ruminants and non-ruminants digestive system. **(5mks)**

# KCSE 2025 TOP SCHOOLS MOCKS

## **EXAM TRIAL 6**

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 index number in the spaces provided above.*
- 2) Sign and write the date of the examination in the spaces provided above.*
- 3) This paper consists of three sections: A, B and C.*
- 4) Answer **all** the questions in section A and B and **any two** questions from section C.*

### **FOR OFFICIAL USE ONLY**

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATES SCORE
A	1 – 17	30	
B	18 – 21	20	
C		20	
		20	
	<b>TOTAL SCORE</b>	<b>90</b>	

**SECTION A (30 MARKS)**

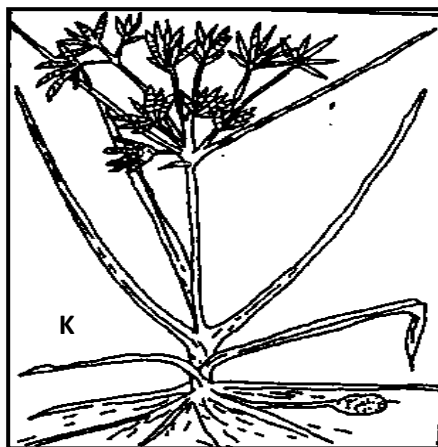
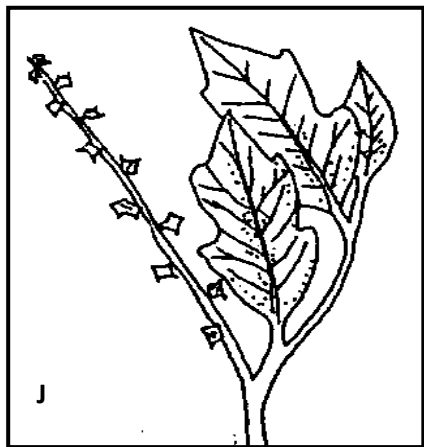
*Answer ALL questions in this section.*

1. Give **four** methods of applying fertilizers to crops. (2 marks)
2. State **four** beneficial biotic factors that influence agriculture. (2 marks)
3. Give **four** branches of Agriculture. (2 marks)
4. State **four** advantages of co-operative land tenure system. (2 marks)
5. State **four** benefits of organic mulch in crop production. (2 marks)
6. State **four** conditions under which shifting cultivation is practiced. (2 marks)
7. Give **four** effects of mass wasting. (2 marks)
8. Give **four** factors that affect the rooting of cuttings. (2 marks)
9. Name **four** details that are included in a farm marketing record. (2 marks)
10. Give **four** examples of product-product relationships in the management of agricultural enterprises. (2 marks)
11. State **three** entries that are made in a journal. (1½ marks)
12. Give **two** reasons for cutting back pyrethrum. (1 mark)
13. State **three** parameters used to indicate national development. (1½ mark)
14. State **four** symptoms of viral diseases in crops. (2 marks)
15. Give **four** reasons for draining land as part of land reclamation. (2 marks)
16. State **two** reasons for topping a pasture. (1 mark)
17. State **two** advantages of metal pipes over plastic pipes in piping water in the farm. (1 mark)

**SECTION A (30 MARKS)**

*Answer ALL questions in this section.*

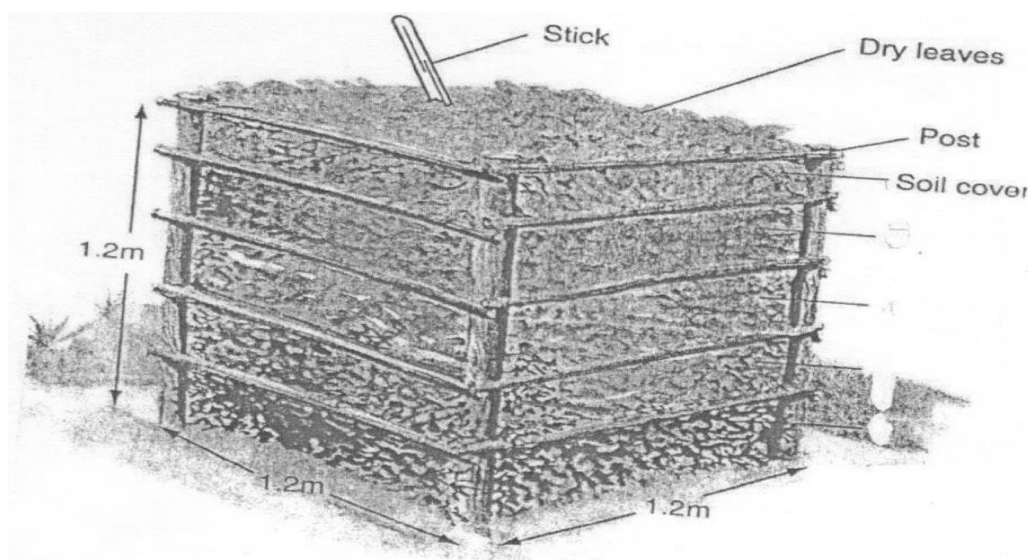
18. Study the following weeds and answer questions that follow.





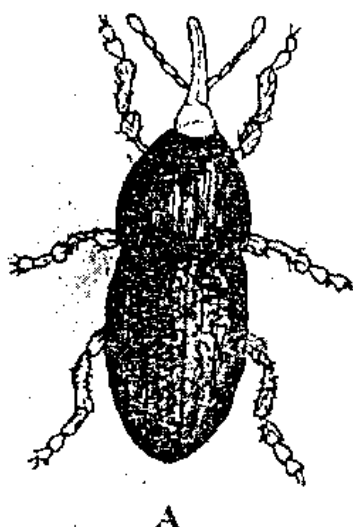
- a) Give the identity of weeds J and K. (2 marks)
- b) What makes weed K difficult to control? (1 mark)
- c) Give the economic importance of weed J. (1 mark)
- d) State **one** reason that makes weeds excellently adapted to various environments. (1 mark)

19. Study the diagram below of a method of compost making and answer the questions that follow.



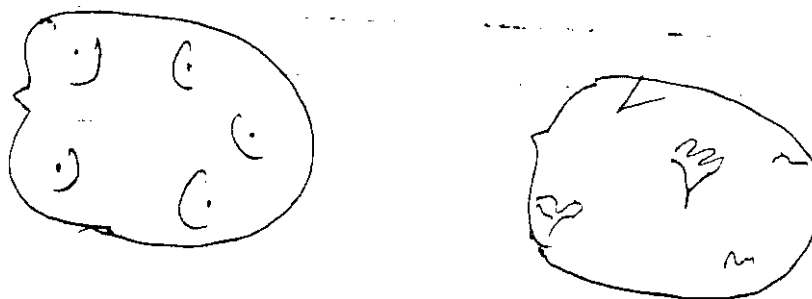
- a) Identify the methods of compost making. (1 mark)
- b) State **four** factors to consider when siting the structure. (2 marks)
- c) What is the function of the following materials in preparation of compost manure?
  - i) Top soil (1 mark)
  - ii) Wood ash (1 mark)

20. Two maize pests are shown in the diagram below. Study them and answer questions that follow.



- a) Identify the pests in the diagram labeled A and B. (1 mark)
- b) At what stage of maize production does each pest damage the crop? (2 marks)
- c) Give **one** way of controlling each of the pests in the field. (2 marks)

21. The diagram below represents a vegetative material used to prepare a certain crop.  
Study them and answer the questions that follow.



- i) Give the name of the material illustrated above. (1 mark)
- ii) Give the name of the preparation done on the material to make it ready for planting. (1 mark)
- iii) State **three** advantages of carrying out the practice in (ii) above before planting. (3 marks)

### SECTION C (40 MARKS)

Answer ANY TWO questions from this section in the spaces provided

22. a) Describe the growing of dry bean seeds under the following subheadings.

- Selection and preparation of planting materials (3 marks)
- Planting (4 marks)
- Weeding (3 marks)

b) Describe the environmental conditions that may lead to low crop yields. (10 marks)

23. a) Explain **six** factors considered in designing a crop rotation programme (6 marks)

b) Explain the factors that influence the type of irrigation to be used in a farm. (8 marks)

c) Explain **six** post-harvest practices carried out on production of maize. (6 marks)

24. a) Explain **five** advantages of budgeting in farming. (10 marks)

b) Explain **five** various types of risks and uncertainties. (5 marks)

c) Describe the importance of pruning perennial crops. (5 marks)

# KCSE 2025 TOP SCHOOLS MOCKS

## **EXAM TRIAL 6**

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 above.
- 2) Sign and write the date of the examination in the spaces provided above.
- 3) This paper consists of three sections: A, B and C.
- 4) Answer **all** the questions in section A and B and **any two** questions from section C.

### **FOR OFFICIAL USE ONLY**

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

**SECTION A (30 MARKS)**

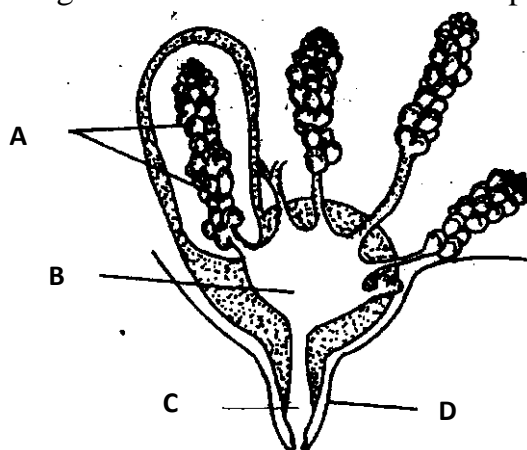
*Answer **all** the questions in this section in the spaces provided.*

1. Give **three** factors that affect the quality of honey. (1½ marks)
2. State **three** conditions that make a cow to withhold milk during milking. (1½ marks)
3. State **four** signs of furrowing observed in pigs. (2 marks)
4. Give **three** factors that may make birds to lay eggs on the floor in a deep litter. (1½ marks)
5. Give **three** characteristics of clean and high quality milk. (1½ mark)
6. Outline **four** control measures of round worms. (2 marks)
7. State **four** signs of liver fluke infestation in cattle. (2 marks)
8. Give **four** reasons of breeding in cattle. (2 marks)
9. List **four** methods of preserving fish. (2 marks)
10. Name **two** classes of livestock feedstuffs. (1 mark)
11. Give **two** roles of ovaries in cows' reproductive system. (1 mark)
12. Give **two** reasons for flushing in sheep. (1 mark)
13. Give **four** reasons for treating timber used in construction of farm buildings. (2 marks)
14. State **four** factors that influence the daily water intake in an animal. (2 marks)
15. Name **two** functions of a clutch in the tractors transmission system. (1 mark)
16. Give **four** characteristics of a good calf pen. (2 marks)
17. State **four** factors that influence the choice of the poultry system of rearing to use. (2 marks)
18. State **four** routine management practices carried out on a replacement stock that is a heifer. (2 marks)

**SECTION B (20 MARKS)**

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

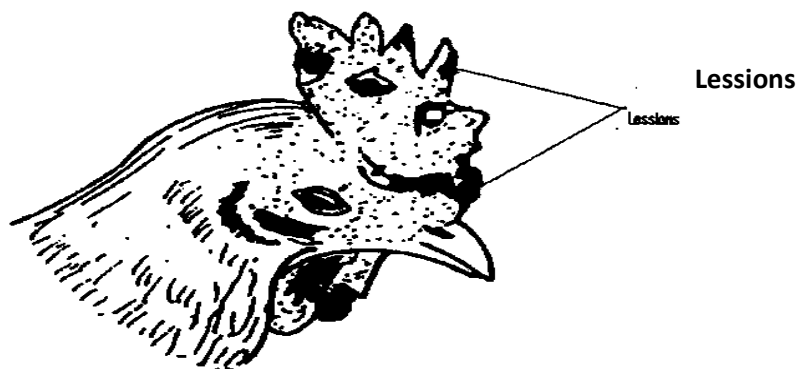
19. The diagram below is a cross section of part of a cow's udder.



- a) Name the parts marked A, B, C and D. (2 marks)

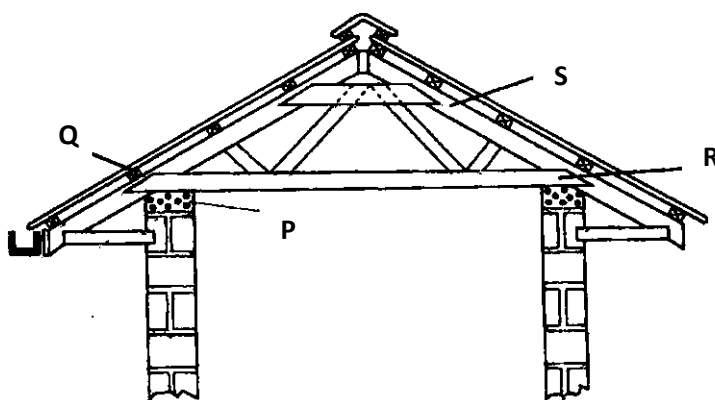
- b) Name **two** hormones that control milk let down in a dairy cow. (2 marks)
- c) What is a dry cow therapy? (1 mark)

20. The diagram below shows the head of a chicken having symptoms of a poultry disease.



- a) Identify the disease. (1 mark)
- b) Give **two** reasons why the disease is of economic importance. (2 marks)
- c) Outline **two** methods of controlling the above disease. (2 marks)

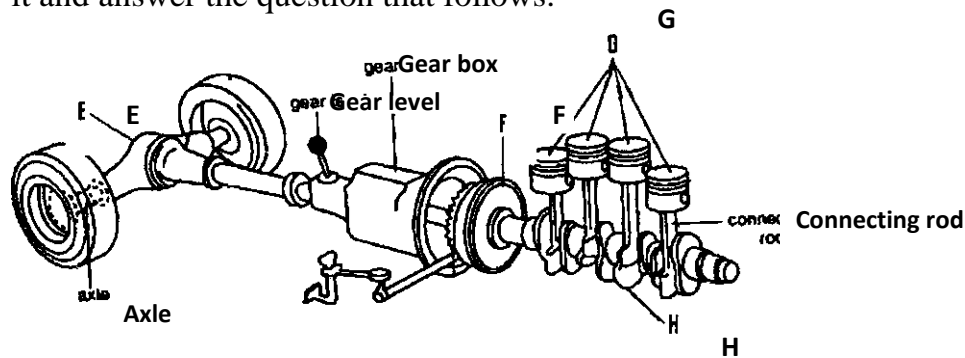
21. The following diagram shows parts of a roof. Study it carefully and answer the questions that follow.



- a) Name the parts labeled **P**, **Q**, **R** and **S**. (2 marks)
- b) State the functions of **P** and **Q**. (2 marks)
- c) Give **two** chemical preservatives for treating timber before use in the construction of farm structures. (2 marks)

22. Below is a diagram of power transmission system of tractor engine.

Study it and answer the question that follows.



- a) Name the parts labeled E, F, G and H. (2 marks)
- b) State the functions of E and H. (2 marks)

### SECTION C (40 MARKS)

Answer **ANY TWO** questions from this section.

23. a) Describe **five** pre-disposing factors of livestock diseases. (5 marks)
- b) Describe **six** mechanical methods of controlling ticks. (6 marks)
- c) Describe the factors that affect milk composition of a cow. (9 marks)
24. a) State **five** advantages of farm mechanization. (5 marks)
- b) Explain **five** advantages of using a mould board plough in seed bed preparation. (5 marks)
- c) Describe the use of various materials in construction of a Kenya Top bar hive. (5 marks)
- d) Outline the care and maintenance of a tractor water cooling system. (5 marks)
25. a) State **four** physical characteristics of a dairy cow. (4 marks)
- b) State **nine** factors to consider when selecting livestock for breeding. (9 marks)
- c) Describe milk fever in dairy cattle under the following sub-headings.
- i) The cause of the disease (1 mark)
- ii) Symptoms of the disease (4 marks)
- iii) Control measures (2 marks)



# **KCSE 2025 TOP SCHOOLS MOCKS**

## **EXAM TRIAL 7**

**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 the examination in the spaces above.*
- This paper consists of THREE sections A, B and C.*
- Answer ALL questions in section A and section B and Any Two questions in section C.*

### **EXAMINER'S USE ONLY**

Section	Questions	MaximumScore	Candidates Score
A	1-19	30	
B	20-23	20	
C		20	
		20	
Total Score		90	

**SECTION A (30 MARKS)**

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

1. Define organic farming (1mark)
2. List THREE soil constituents (1 ½ mark)
3. Give **FOUR** benefits of crop rotation (1mark)
4. State TWO disadvantages of using hydram pumps in pumping water in the farm (1mark)
5. List FOUR benefits of land consolidation in farming (2marks)
6. Name a crop weed that is:
  - a) Parasitic to maize crop (1/2 mark)
  - b) Alternate host for rusts (½ mark)
  - c) Aquatic (½ mark)
  - d) Has medicinal value (½ mark)
7. State THREE ways in which nitrogen is lost from the soil (1½ marks)
8. State FOUR benefits of mulching in soil and water conservation (2marks)
9. Give FOUR disadvantages of using organic manures in crop production (2marks)
10. (a) Define opportunity cost (1mark)  
(b) Name Two types of inventory records kept by farmers (1mark)
11. Give TWO importance of sub-soiling (1mark)
12. Give THREE ways in which nutrients can be lost from silage in a silo (1½ mark)
13. (a) Give TWO destructive effects of moles in crop production (1mark)  
(b) Apart from moles, name TWO other rodent pests (1mark)
14. Give THREE characteristics of fixed inputs (1½ marks)
15. List FOUR financial documents kept by farmers (2marks)
16. State FOUR field pests that attack maize (2marks)
17. Differentiate between apiculture and aquaculture as used in Agriculture (1mark)
18. State TWO ways in which burning leads to loss of soil fertility (1mark)
19. State TWO benefits of hardening off seedlings before transplanting . (1mark)

**SECTION B (20 MARKS)**

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

**20.** The photograph below shows a farming practice. Study it and answer the questions that follow.



(a) Name the practice (1mark)

(b) Name one crop to which the practice is applicable (1mark)

(c) Give TWO benefits of the practice above (2marks)

**21.** Study the farm record below and use it to answer the questions that follow.

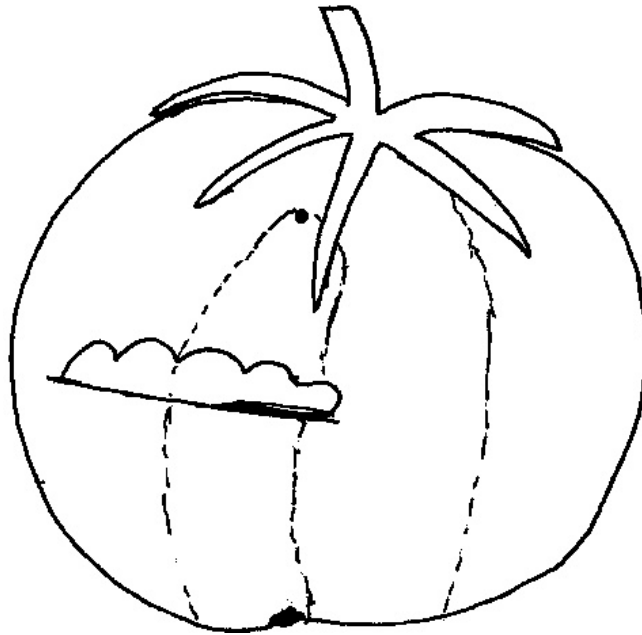
Date	Amount sold	Price per unit (Kshs.)	Total Value (Kshs)	Where Sold	Remarks
19/5/2018	120 Kg	30	3600	Mkulima Agrovet	Fair price
20/5/2018	150 Kg	32		Nyahururu Agrovet	To supply more

(a) Name the type of farm record above (1mark)

(b) On the record fill the missing values (1mark)

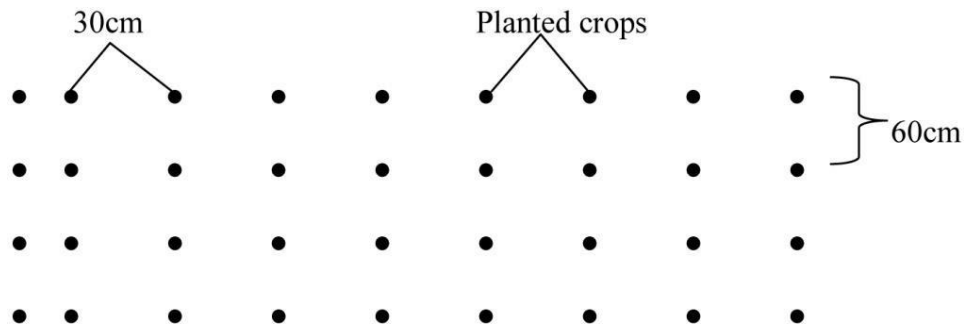
(c) Give a farm statement that heavily depends on information extracted from the farm record named above (1mark)

22. The diagram **below** illustrates a tomato fruit infested by a certain pest.



- (a) Identify the pest (1 mark)
- (b) State the damage caused by the pest on the fruit. (1 mark)
- (c) Name **one** alternate host of the pest in the diagram. (1 mark)
- (d) State **one** methods of controlling the pest. (1 marks)

23. The diagram below shows a method of planting used to establish a certain variety of crop



- (a) Identify the method of planting used (1mark)
- (b) Give the spacing followed above (1mark)
- (c) Give THREE advantages of the above method of planting crops (3marks)
- (iv) The spacing above was used to establish a crop on an area of land measuring 6m by 3m.  
Calculate the crop population. Show your working (4marks)

**SECTION C (40 MARKS)**

*Answer ANY TWO questions from this section in the spaces provided.*

24. (a) Explain challenges faced by Kenyan vegetable farmers in the production of crops(10mks)  
(b) Discuss various safety precautions observed when using herbicides (5mks)  
(c) Describe the benefits of minimum tillage in crop production (5mks)
25. (a) Outline various ways in which land fragmentation increases the cost of food production in Kenya(5mks)  
(b) Describe the importance of top dressing in pasture establishment (5mks)  
(c) Explain FIVE factors that influence soil erosion (10mks)
26. (a) Describe the importance of any FIVE nursery management practices in crop production (10mks)  
(b) Explain various management practices that can be carried out by a farmer to maintain soil fertility on his farm. (10 marks)

# **KCSE 2025 TOP SCHOOLS MOCKS**

## **EXAM TRIAL 7**

**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 questions in sections A and B and any two questions in section C.*
- c) All answers be written in the spaces provided after every question.*
- d) Candidates should write their names and index numbers in the spaces provided above.*

### **FOR EXAMINER'S USE ONLY**

Section	Question	Maximum Score	Candidates Score
A	1-15	30	
B	16 -19	20	
C		20	
		20	
		90	

**SECTION A (30 marks)**

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

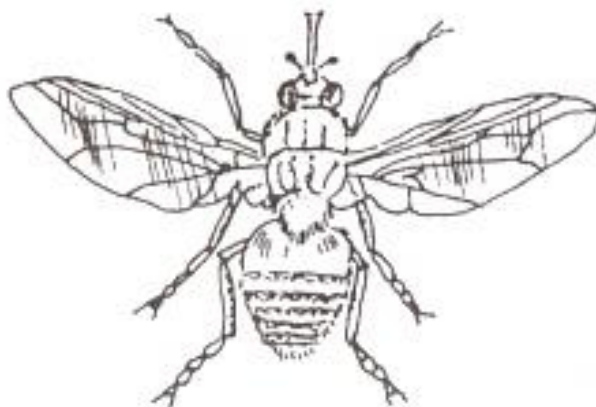
1. State **four** disadvantages of Natural method of servicing cattle. (2mks)
2. State **four** maintenance practices carried out on workshop tools and equipments. (2mks)
3. Give **four** reasons for castrating male calves not required for breeding in a farm. (2mks)
4. Give **four** factors considered when siting a fish pond in a farm. (2mks)
5. Give **four** causes of cannibalism in poultry production. (2mks)
6. State **four** factors to consider when selecting breeding stock in livestock production. (2mks)
7. Give **four** reasons of using litter in a poultry house. (2mks)
8. (a) Give **four** reasons why identification of livestock is an important rearing practice in a farm. (2mks)
- (b) Explain any **two** harmful effects of branding as a method of identification in cattle. [2mk]
9. Name **four** breeds of sheep reared in Kenya. (2mks)
10. Distinguish between each of the following terms as used in livestock rearing practices.
  - (a) Steaming up and flushing. (1mk)
  - (b) Kindling and farrowing. (1mk)
11. What is **quarantine** as a preventive measure of livestock diseases? (1mk)
12. State **four** factors considered during sorting out and grading eggs for marketing. (2mks)
13. State **two** ways by which an animal acquire water in its body. (1mk)
14. State **four** control measures of round worm (*Ascaris lumbricoides*) infestation in livestock. (2mk)
15. State the function of the following ingredients in the preparation of artificial colostrum for calves.
  - (a) Castor oil –.....(1/2mk)
  - (b) Warm water.....(1/2mk)
  - (c) Eggs- .....(1/2mk)
  - (d) Cod liver oil- .....(1/2mk)



**SECTION B (20 marks)**

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

**16.** The diagram below shows a livestock parasite.



(a) Identify the parasite shown above.

**(1mk)**

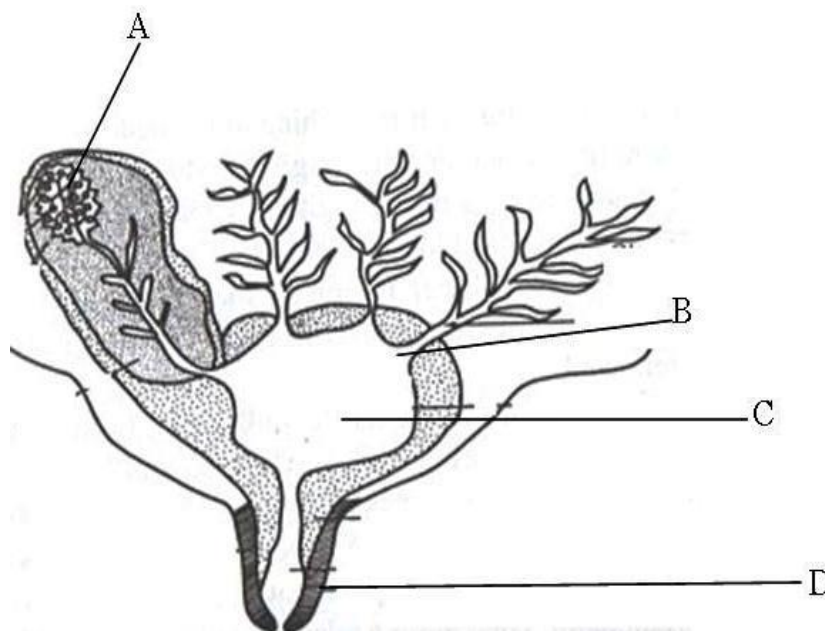
(b) State **two** harmful effects of the above parasite on livestock.

**(2mks)**

(c) Explain any **two** methods used in the control of the above parasite.

**(2mks)**

**17.** The diagram below represents the structure of a quarter of the cow's udder. Study it and answer the questions that follow.



(a) Name the parts labeled **B** and **C**.

**B** .....

**(1mk)**

**C** .....

**(1mk)**

(b) Name the process that takes place in the part labeled **A** and the hormone that controls it.

(2mks) Process –.....

- Hormone .....

(c) State the function of the muscle labeled **D**.

(1mk)

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



(a) Identify the disease the animal is suffering from

(1mk)

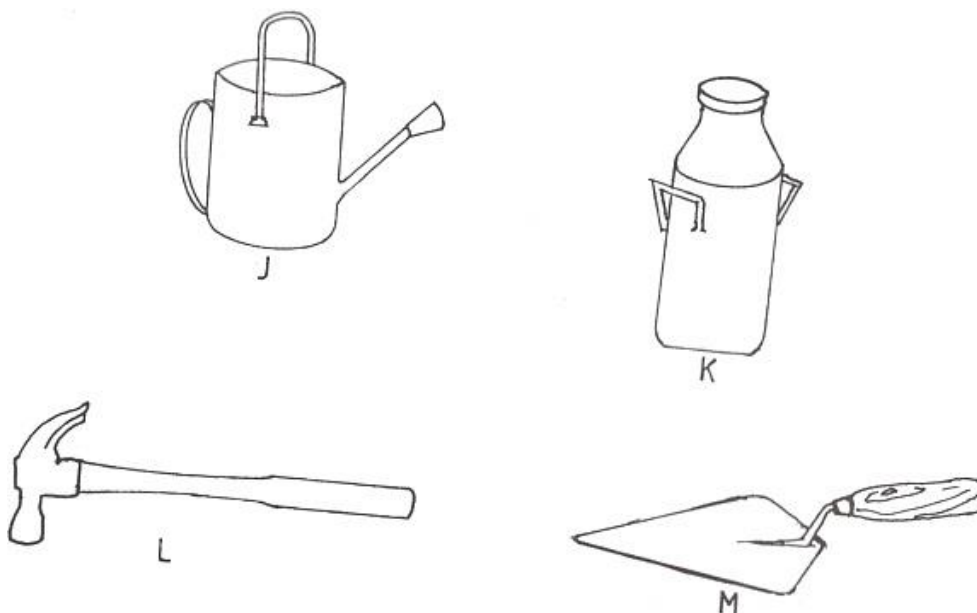
(b) Give **three** observable symptoms that can be identified from the diagram.

(3mks)

(c) State **one** control measure of the above disease.

(1mk)

19. The diagram below represents farm tools and equipments. Study them and answer the questions that follow.



- (a) Identify tool/equipment labeled J, K, L and M. **2 marks**
- (b) State **one** use of each of the tool/equipment labelled K and L **(2mk)**
- Give **one** maintenance practices for the equipment labelled K. **1mk)**

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

*Answer any two questions from this section in the spaces provided after question 22.*

- 20. (a)** Describe Anthrax disease under the following sub-headings:
- (i) Causal organism **(1mk)**
  - (ii) Signs of infection/symptoms. **(6mks)**
  - (iii) Control measures. **(3mks)**
- (b) (i) State** and explain condition necessary for artificial incubation. **(8mks)**
- (ii) State **two** advantages of artificial incubation. **(2mks)**
- 21. (a)** Describe the feeding practices in artificial rearing of a dairy calf. **(10mks)**
- (b) State the differences between digestion in Ruminants and non-ruminants. **(5mks)**
- (c) State **five** signs of parturition in cattle. **(5mks)**
- 22. (a)** Explain **five** factors that affects the digestibility of a feed material. **(5mks)**
- (b) Describe the causes of stress in poultry management. **(10mks)**
- (c) State **five** characteristics of clean and high quality milk. **(5mks)**

**KCSE 2025 TOP SCHOOLS MOCKS****EXAM TRIAL 8**

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 ADM number in the spaces provided above.*
- b) Sign and write the date of examination in space provided.*
- c) This paper consists of three sections; A, B and C.*
- d) Answer all the questions in section A and B.*
- e) Answer any two questions in section C.*

**FOR EXAMINER'S USE ONLY**

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATES SCORE
A	1 - 15	30	
B	16 - 19	20	
C	20-22	20	
		20	
	Total score	90	

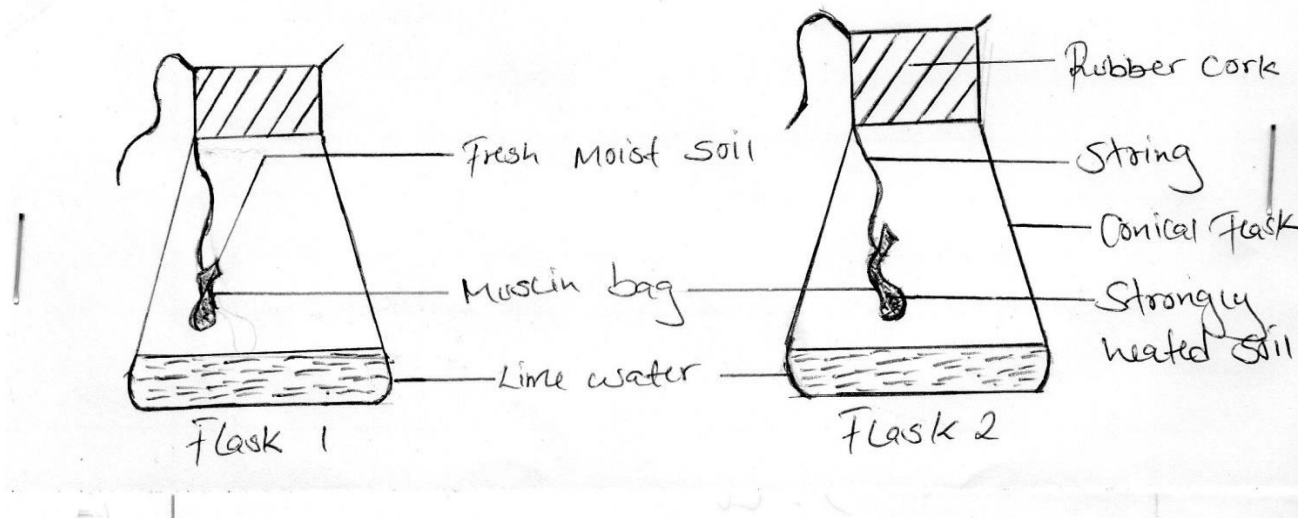
**SECTION A:(30MARKS)**

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

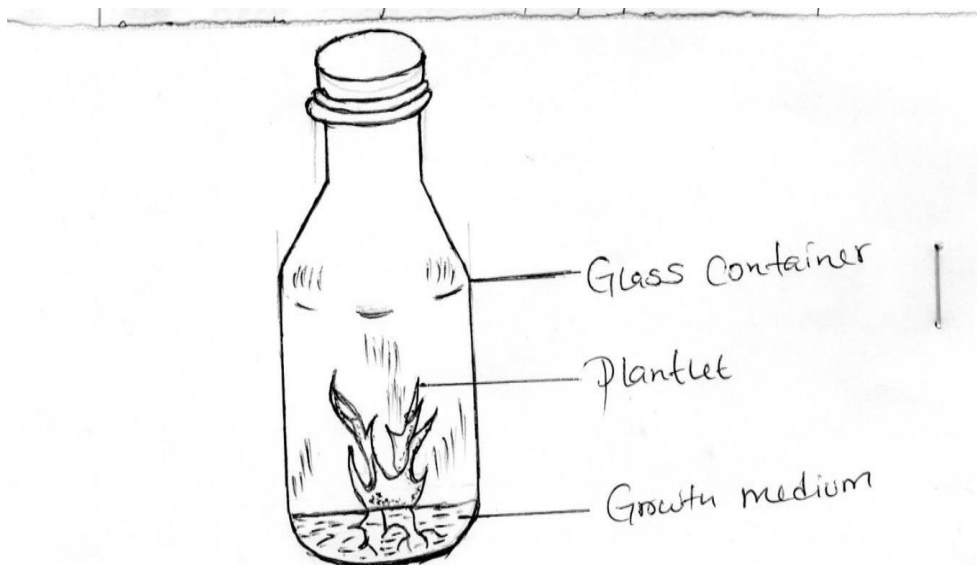
1. **State four** advantages of intensive system of farming. (2mks)
2. **Give four** conditions likely to facilitate land fragmentation. (2mks)
3. a) **List four** post-harvest practices done on crops. (2mks)  
b) What is earthing up in crop production? (1mk)
4. **Give four** reasons as to why burning as a method of bush clearing is not recommended. (2mks)
- 5.a) **Give the form** in which the following elements are available to plants (1mk)
  - i) Nitrogen -
  - ii) Sulphur–  
  - b) State two liming elements in crop production. (1mk)
6. State four effects of ill- health and HIV /AIDs in agricultural production (2mks)
7. State the functions of the following components in a compost heap. (2mks)
  - i) Ash.....
  - ii) Garden soil .....
  - iii) Organic manure.....
  - iv) Stick.....
8. **State four** factors that can enhance rooting in stem cuttings. (2mks)
9. Outline four reasons a farmer should have breeding records in livestock production. (2mks)
10. Give four ways of treating water for use in the farm. (2mks)
11. List Four methods of harvesting water in a farm. (2mks)
12. Give two methods of conserving forage. (1mk)
13. State four Farming activities that encourage soil erosion. (2mks)
14. State four roles of agriculture in national **development** (2mks)
15. State four advantages of budding. (2mks)

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

- 16.** The diagrams below show an experiment that was carried out by Mwatate agriculture students. Study it carefully and answer the questions that follow.

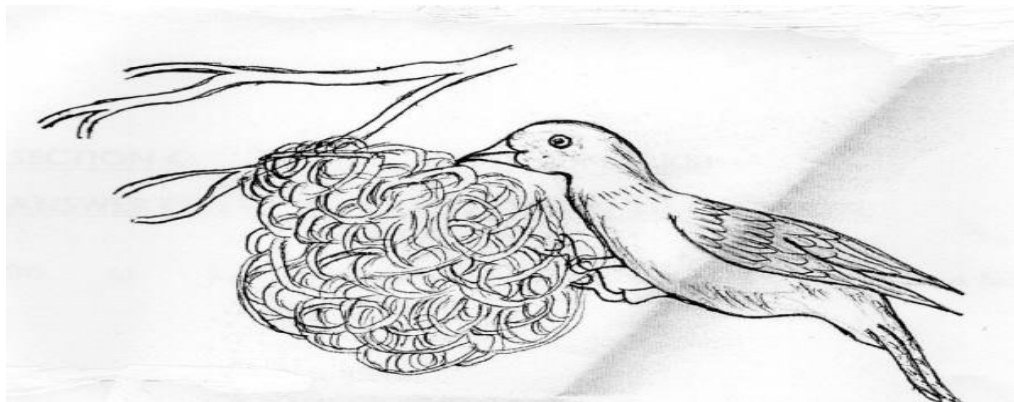


- What was the aim of the experiment. (1mk)
  - What observation did the students make in the two flasks at the end of the experiment. (2mks)
    - Flask 1
    - Flask 2
  - Give a reason for the observation made in flask 1 (1mk)
  - Why did the students heat the garden soil in flask 2 strongly? (1mk)
- 17.** The diagram below illustrates materials, and a method of vegetative propagation. Study it and answer the questions that follow.



- i) Identify the method of propagation illustrated above. (1mk)
- ii) Name a common crop propagated through the method. (1mk)
- iii) Give three disadvantages of this method of propagation. (3mks)

18. The diagram below shows a bird which is a field crop pest. Study it and answer the question that follow.



- a) Identify the pest (1mk)
- b) State two damages caused to crops by the pest. (2mks)
- c) Give two methods which can be used to control the pest. (2mks)

19. a) Given that the spacing of coffee is 2.7m by 2.7m, calculate the plant population in 1 hectare (Ha) of land (2mks)
- b) Give three reasons why crops should be planted at the correct spacing. (3mks)

### SECTION C (40MARKS)

20. a) State **four** benefits of sowing annual crops early. (4mks)
- b) Describe **eight** effects of fragmentation and sub division of land. (8mks)
- c) Explain **eight** effects of weeds. (8mks)
21. a) Describe the various field management practices for tomatoes. (8mks)
- b) State the precautions that should be observed when harvesting cotton. (4mks)
- c) Explain **four** importance of crop rotation. (8mks)
22. a) Explain **four** factors to consider in choosing the type of irrigation to use in the farm. (8mks)
- b) Describe **five** farming practices that destroy soil structure. (5mks)
- c) Describe **seven** reasons why farmers need to keep good farm records. (7mks)



# **KCSE 2025 TOP SCHOOLS MOCKS**

## **EXAM TRIAL 8**

**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 Admission number 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.*
- d) Answer any two questions in section C.*

### **FOR EXAMINERS USE ONLY**

SECTION	QUESTIONS	MARKS	SCORE
A	1 – 22	30	
B	23 – 26	20	
C		20	
		20	
TOTAL SCORE		90	

**SECTION A (30MARKS)**

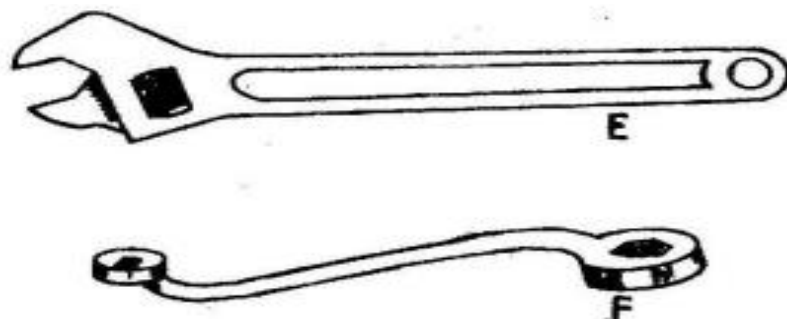
*Answer all the questions*

- 1) State **four** disadvantages of natural mating. (2marks)
- 2) Name any **two** methods used to identify goats. (1mark)
- 3) List **three** signs of lambing. (1½marks)
- 4) Explain the meaning of cropping as used in fish production. (1mark)
- 5) State **two** reasons why jersey breed is suitable than Friesian in marginal areas. (1mark)
- 6) State **four** methods used to control cannibalism in a flock of layers in a deep litter system. (2mark)
- 7) State **two** reasons why we have a footbath in a cattle dip. (1mark)
- 8) State **four** uses of solar energy in the farm. (2marks)
- 9) List **four** functions of water in an animal's body. (2marks)
- 10) State **four** reasons for controlling livestock diseases. (2marks)
- 11) State **one** importance of guard rails in a farrowing pen. (1mark)
- 12) List **two** groups of vitamins used in livestock feeding. (1mark)
- 13) State the functions of the following farm tools  
Shovel (½mark)  
Rubber ring and elastrator (½mark)
- 14) List **three** control measures for fowl pox disease in poultry (1½mark)
- 15) What is a production ration? (1mark)
- 16) State **two** maintenance practices carried out on slasher. (1mark)
- 17) Name the hormone responsible for milk let down (½mark)
- 18) List any **two** chemicals used to treat wood against weather elements. (1mark)
- 19) State any **four** characteristics of exotic breeds of cattle. (2marks)
- 20) State **three** uses of biogas on a farm. (1½marks)
- 21) State **four** practices done to make wooden fence posts last longer. (2marks)

**SECTION B (20mks)**

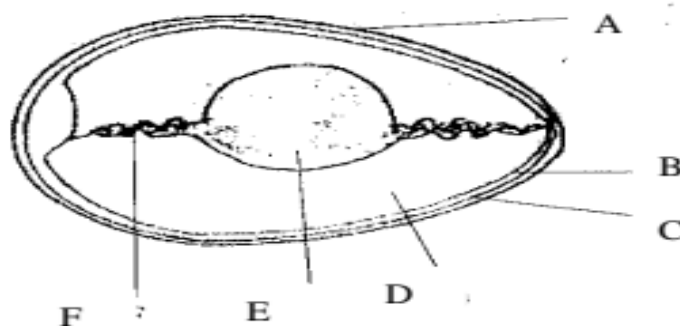
22) A dairy farmer is required to prepare 100kgs of dairy meal containing 20% DCP (Digestible crude protein). Using the Pearson's square method, Calculate the quantity of soya beans 40% DCP and rice 16% DCP the farmer requires for the dairy meal. (5marks)

23) The following diagrams illustrate some workshop tools. Study them carefully and answer the question that follows.



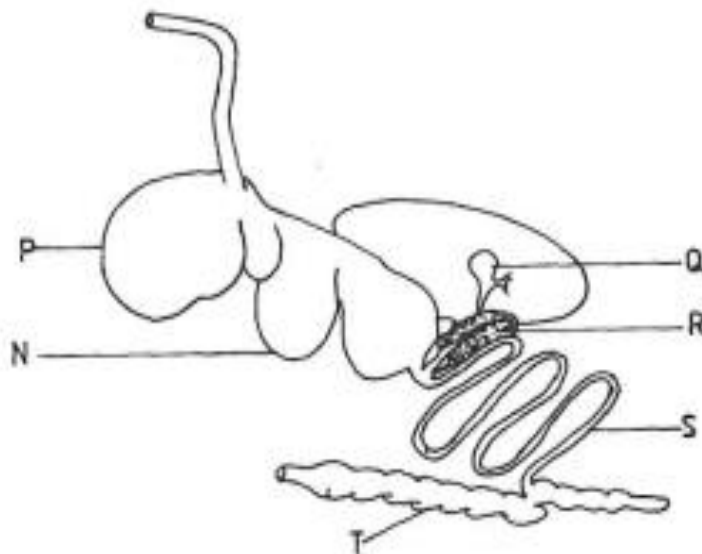
- (a). Identify the tools labeled E and F (2marks)
- (b). State the functional advantage tool E has over tool F. (1marks)
- (c) State two maintenance practice carried out on tool E. (2marks)

25. Study the diagram below of an egg and use it to answer the questions that follow.



- a) Name the parts labeled B, C, D and F. (2marks)
- b) List any two structural qualities of an egg to be incubated. (2marks)
- (c) Give the functions of part labeled E in a fertilized egg (1mark)

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



- a) Name the parts labeled N, P, R and Q. (2marks)
- b) List three microbial activities that take place in the part labeled P. (3marks)

### SECTION C (40MARKS)

*Attempt Any Two Questions In This Section*

27. a) Discuss the preparation of the brooder before the arrival of chicks. (5marks)
- b) Describe the management practices carried out on ewes two weeks before mating to weaning of lambs. (15marks)
28. (a) Outline any eight control measures for ticks. (8marks)
- (b) Outline the daily maintenance practices that should be carried out on a farm tractor. (12 marks)
29. (a) Describe the uses of **five** materials and equipment required during hand milking (10mks)
- b) Discuss mastitis disease under the following sub –heading
- i. Animals affected (1mark)
  - ii. Casual organism (1mark)
  - iii. Predisposing factors (4marks)
  - iv. Control and treatment (4marks)

# KCSE 2025 TOP SCHOOLS MOCKS

**EXAM TRIAL 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* 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	1-14	30	
B	15-17	20	
C	18- 20	40	
	<b>TOTAL</b>	<b>90</b>	

**SECTION A (30MKS)****Answer ALL the Questions in this section**

1. List **four** environmental factors that affect crop distribution in a given area. (2mks)
2. Mention **two** methods of storing water on a farm (1mk)
3. Give one reason why too much air in the silo is undesirable in the process of making silage. (½mk)
4. State **two** advantages of a grass-legume pasture over a pure grass pasture (1mk)
5. State **two** characteristics of a large scale farming system. (1mk)
6. Give **four** reasons why farmers are encouraged to practice organic farming. (2mks)
7. (a) What is meant by the term **land reform**? (½mk)  
(b) State **four** steps followed in land adjudication. (2mks)  
(c) Mention any **four** pieces of information contained in a land title deed. (2mks)
8. State **two** ways how ridging controls soil erosion (1mk)
9. List down **two** determinants of national income (1mk)
10. State **two** possible causes of a hard pan. (1mk)
11. Differentiate between chitting and seed inoculation. (1mk)
12. Mention **four** management practices that are carried out on agro forestry trees from transplanting to maturity (2mks)
13. Give four possible causes of seed dormancy. (2mks)
14. State **four** reasons for planting cereals early in the planting season. (2mks)
15. Give **four** functions of Young Farmers Clubs in Kenyan secondary schools and colleges. (2mks)
16. Give **one** term used to explain a market condition where there is a:  
(i) Sole seller (½mk)  
(ii) Sole buyer (½mk)
17. Distinguish between the terms hybrid and composite as used in maize breeding (1mk)
18. State **two** characteristics of green manure plants (1mk)
19. Give **four** farming practices that may help in achieving minimum tillage (2mks)
20. What is biological weed control (1mk)

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

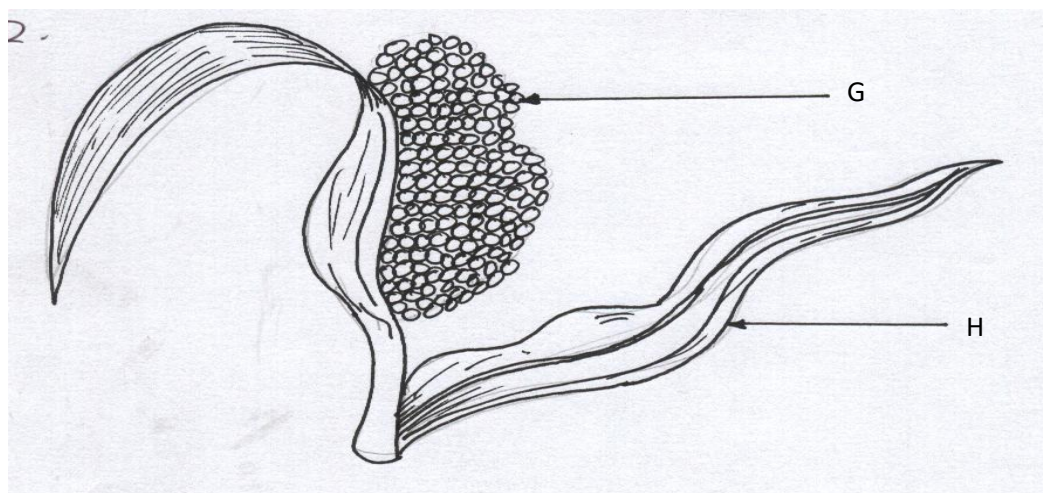
**Answer ALL the questions in this section**

- 21.(a) A farmer can combine dairy meal and home made feeds in order to obtain 40kg of milk from a lactating cow as shown in the table below.

Dairy meal(kg)	Home-made feed(kg)	Marginal rate of substitution
1	48	0
2	39	V
3	32	7
4	27	W
5	23	4
6	21	X
7	20	1
8	19	Y

- (i) Given the above information, calculate the Marginal Rate of Substitution and give the value of V, W, X and Y. (4mks)
- (ii) Given that the price of dairy meal is Kshs.8.00 per kilogram and that of home-made feeds is Kshs.2.00 per kilogram, calculate the least cost combination. (1mk)

22. The diagram below illustrates one of the arable field crops. Study it carefully and answer the questions that follow.



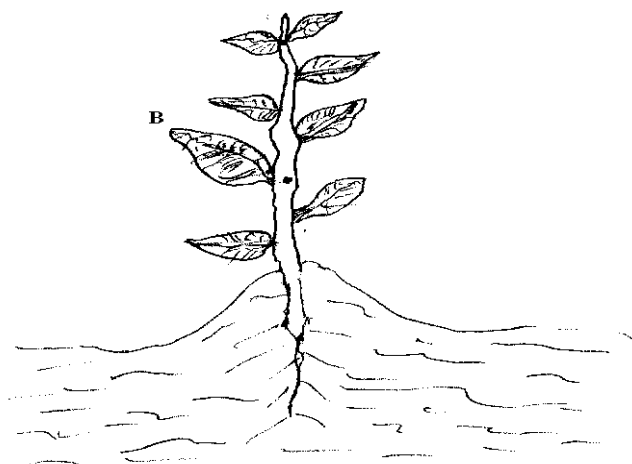
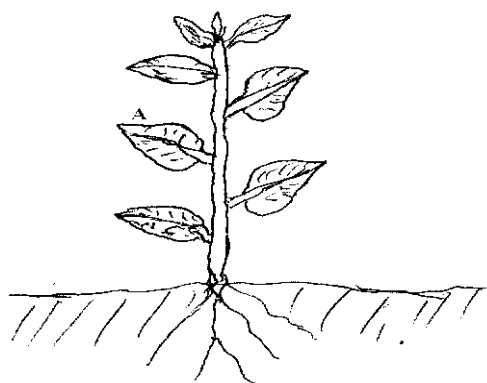
- a) Identify the field crop. (1mk)
- b) State **two** common diseases that attack the parts labeled G and H (2mks)  
 G..... H.....
- c) Explain four **cultural** methods of controlling the disease named H in (b) above (2mks)

- 23.a Name the deficient nutrient element in plants showing the following symptoms;



- i. Stunted growth, die back of plant tips, leaves roll up and chlorosis along margins of younger leaves (1mk)
- ii. Yellowing of leaves appears first on lower leaves; leaves turn brown and fall prematurely, stunted growth. (1mk)
- iii. Leaf curling, yellowing of leaves tips and edges of leaves scorched and has small mottles. (1mk)
- iv. Purpling of leaves, stunted growth, slender stalks and lateral buds remain dormant. (1mk)

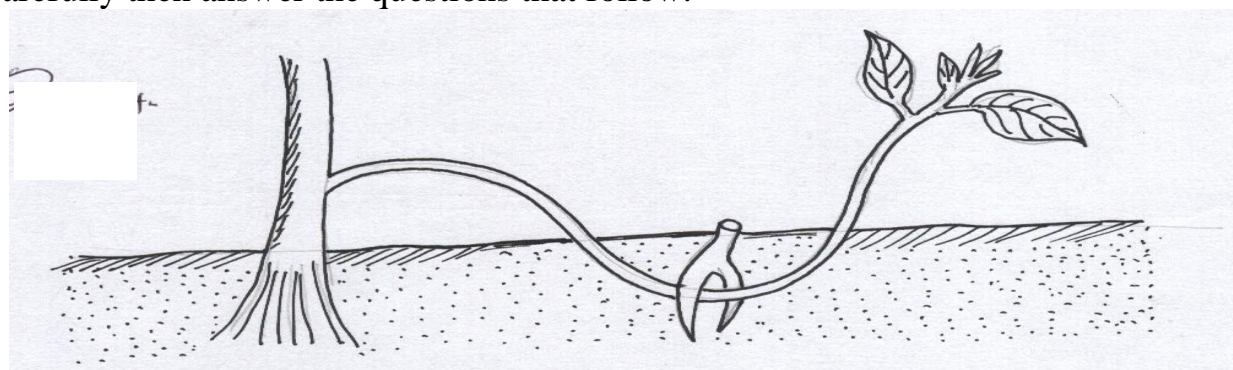
b The diagrams below show a practice out on various crops on the farm. **Study** them carefully and answer the questions that follow.



**Identify** the practice in diagram B

( 1 mk)

24. The figure below is a diagram illustrating a method of crop propagation. Study it carefully then answer the questions that follow.



- a) Name the method of propagation illustrated above (1mk)
- b) Give **two** ways of initiating faster root development in the propagation method shown above (2mks)
- c) What would make it necessary for a farmer to choose the above method of propagation instead of using cuttings? (2mks)

**SECTION C (40MKS)****Answer any TWO questions in this section****25. a)** Describe the production of tomatoes under the following:-

(i) Transplanting: (5mks)

(ii) Field Management practices. (5mks)

b) Give **six** advantages of drip irrigation. (6mks)c) Explain **four** factors that determine the quality of hay. (4mks)**26.** Study the information provided carefully and use it to prepare a profit and loss account for Mr. Makunda farm for the year ending 2021. His purchases and expenses were as follows:

Goats	4,000
Poultry	15,000
Dairy meal	25,000
Pasture seeds	50,000
Transportation of farm produces	15,000
Casual workers	12,000
Ox-plough	10,000
Opening Valuation	150,000

**His sales and Receipts.**

Mohair	75,000
Rabbits	36,000
Pigs	70,000
Groundnuts	100,000
Orange	20,000
Eggs	15,000
Closing valuation	200,000

a) Prepare profit and loss account (15mks)

b) Name Five methods of draining water in water logged / marshy areas. (5mks)

**27. (a)** Explain five problems associated with credits? (5marks)

b) Explain eight uses of farm records? (8marks)

c) Explain seven effects of strong winds in agriculture (7marks)

# KCSE 2025 TOP SCHOOLS MOCKS

## **EXAM TRIAL 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* 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.

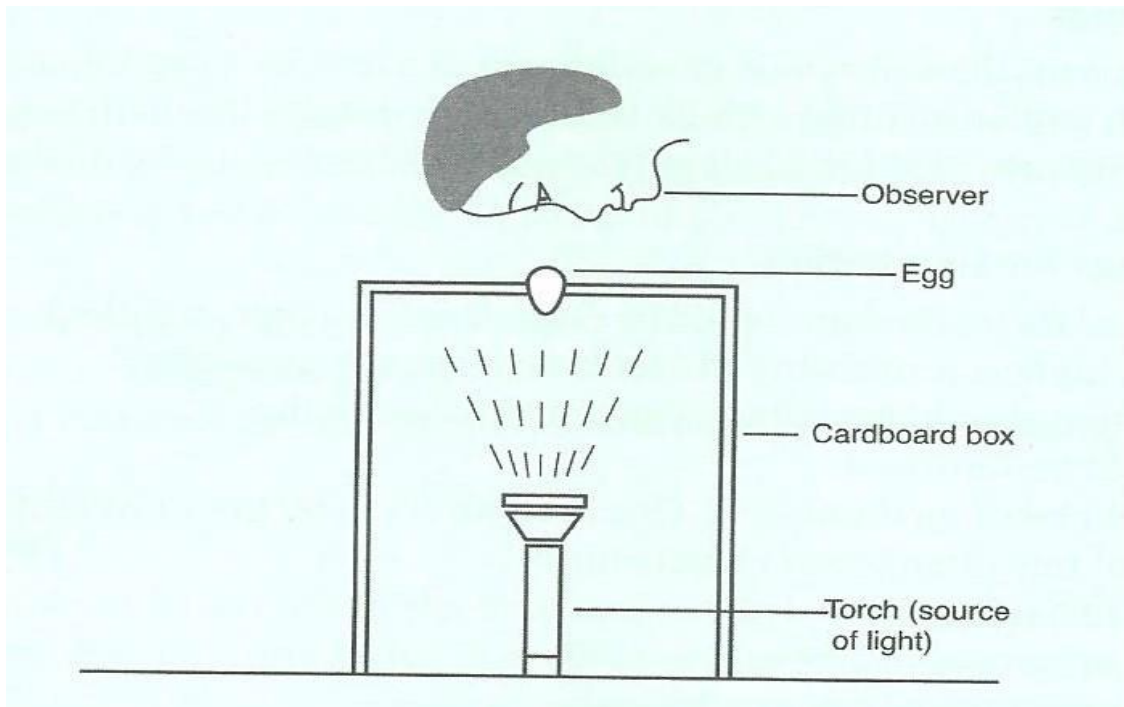
### **FOR EXAMINER'S USE ONLY:**

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. Name two livestock tools that are used together as a pair. (2mks)
2. State two uses of pliers in the farm. (2mks)
3. Name two characteristics of merino sheep breed. (2mks)
4. State four factors that influence the pulse rate of a dairy cow. (2mks)
5. State three conditions that a good livestock structure should meet. (3mks)
6. Name two characteristics of an effective acaricide that a farmer would use to control ticks in livestock. (2mks)
  
7. Name three sources of water in an animals body. (1 ½ mks)
8. List three methods a farmer can use when selecting a breeding stock. (1 ½ mks)
9. List two ways through which a vaccine can be administered to poultry. (2mks)
10. State two signs of lambing in sheep. (1mk)
11. Identify the main use of queen excluder in a Kenya top bar hive. (1mk)
12. List two necessities of an Apiary. (2mks)
13. State two factors that may predispose dairy cattle to mastitis. (1mk)
  
14. State the importance of the following parts in an egg. (2mks)
  - a) Chalaza
  - b) Air space
  
15. List two ways of controlling cannibalism in poultry production. (1mk)
16. State two advantages of raising calves using natural method. (1mk)
17. State two disadvantages of using animal power in a farm. (2mks)
18. Name two maintenance practices carried out on a tractor battery. (1mk)

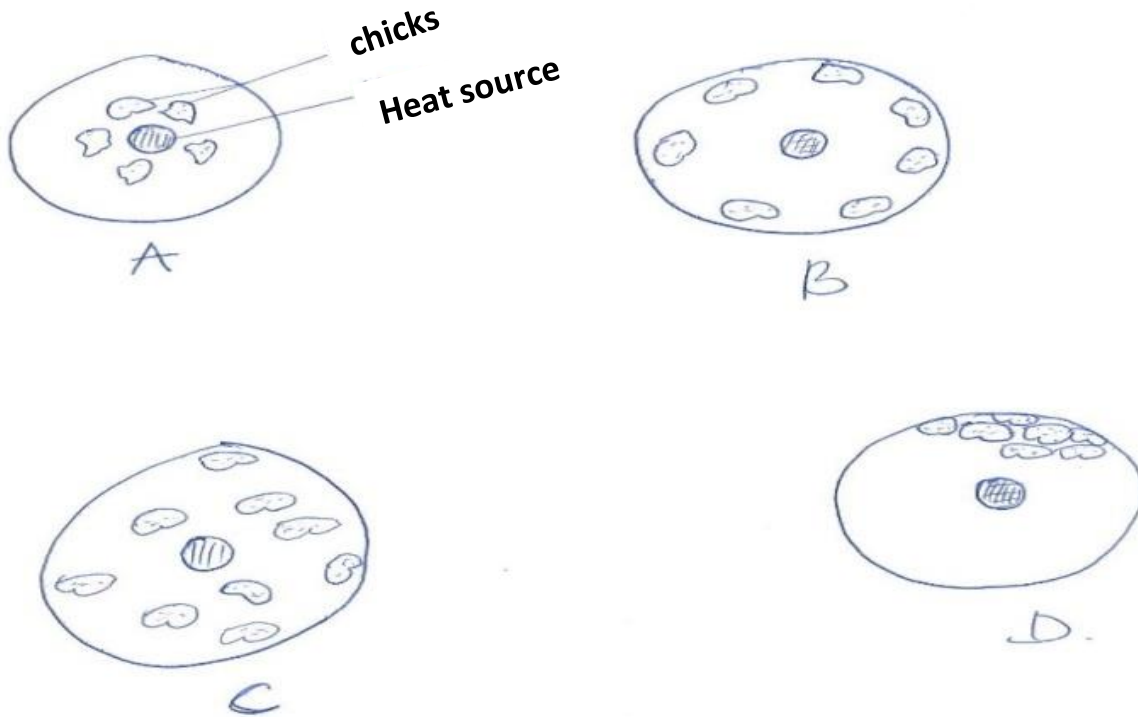
**SECTION B (20MARKS)****Answer all questions in this section.****19.** Study the diagrams below and answer the questions that follow.

- a) Identify the practice above in poultry **production** (1mk)
- b) State two signs of broodiness in **hens**. (2mks)
- c) State three factors observed in an egg using the method shown **above**. (3mks)
- d) Name one reason why a brooder should be round in **shape**. (1mks)

**20.** Study the diagram below and answer the questions.

- a) **Identify** the practice above in sheep production (1mk)
- b) Name two tools used to carry out the practice above (2mks)
- c) State three reasons why a farmer should carry out the practice above. (3mks)

21. Study the diagrams below and answer the questions following.



- a) Explain the temperature and the behaviour of chicks in each diagrams shown above. (4mks)
- b) List three requirement of a good brooder. (3mks)

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

**Answer any two questions.**

- 22 a) **Explain** five reasons that would make bees swarm from the hive. (10mks)
- b) **Discuss** the procedure a farmer would follow when establishing a fish pond. (10mks)
- 23a) Describe the factors farmers should consider when selecting materials for constructing farm structures. (10mks)
- b) Explain five routine management practices in calf rearing. (10mks)
- 24a) **State** and explain five reasons why farmers should keep livestock healthy. (10mks)
- b) **Discuss four** factors that influence the dairy feed requirement of an animal. (8mks)
- c) **Name two** methods used to compute livestock feeds. (2mks)

# KCSE 2025 TOP SCHOOLS MOCKS

## **EXAM TRIAL 10**

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, admission number and class*
- b) This paper contains **three** sections*
- c) Answer all question in section **A** and **B***
- d) In section **C** answer any two questions*

### **FOR EXAMINER'S USE ONLY**

Section	Questions	Maximum score	Candidate score
A	1 -18	30	
B	19 -22	20	
C		20	
		20	
Total score		90	



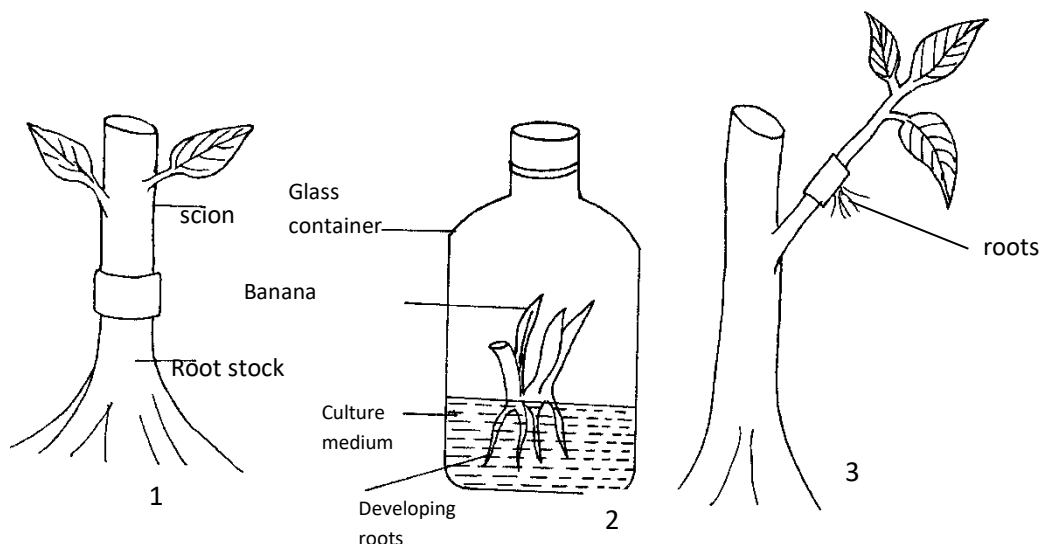
**SECTION A(30MARKS)****Answer ALL questions in this section**

- 1) Name a chemical used to achieve the following during water treatment.
- (a) Coagulation of solid particles (1/2mark)
- (b) Softening of water (1/2mark)
- (c) Killing pathogens (1/2mark)
- 2) State **two** causes of forking in carrots (1mark)
- 3) Name **four** books of account kept by a farmer (2 mark)
- 4) Give the element whose deficiency in plants is characterized by the following
- (a) Interveinal chlorosis of the leaves .....(1/2 mark)
- (b) Blossom end rot in tomatoes .....(1/2mark)
- (c) Scorched edges of a leaf ..... (1/2 mark)
- 5) Give **two** roles of agriculture in industrial growth. (1 mark)
- 6) Difference between olericulture and pomoculture (1 mark)
- 7 a) Give **two** disadvantages of hydram pumps (1 mark)
- (b) State **two** methods of harvesting Maize (1 mark)
- 8) a) What is Agro forestry. (1mark)
- b) State **four** ways in which Agro forestry is important. (2marks)
- 9) Give **four** farming practices that may help in achieving minimum tillage. (2 mrks)
- 10) Define the term “Economic Injury Level” of a crop. (1 mark)
- 11) State **two** conditions when opportunity costs are zero (1 mark)
- 12) State **four** factors that influence solifluction (2 marks)
- 13) Give **four** conditions that necessitate clearing of land. (2 marks)
- 14) Give **four** reasons for keeping health records (2 marks)
- 15) Name any **two** diseases that affect bean production in the field. (1 mark)
- 16) State **four** benefits of crop rotation (2 marks)
- 17) State **four** management practices in a vegetable nursery (2 marks)
- 18) Give **four** methods of land reform practiced in Kenya (2mks)

**SECTION B ( 20 MARKS)**

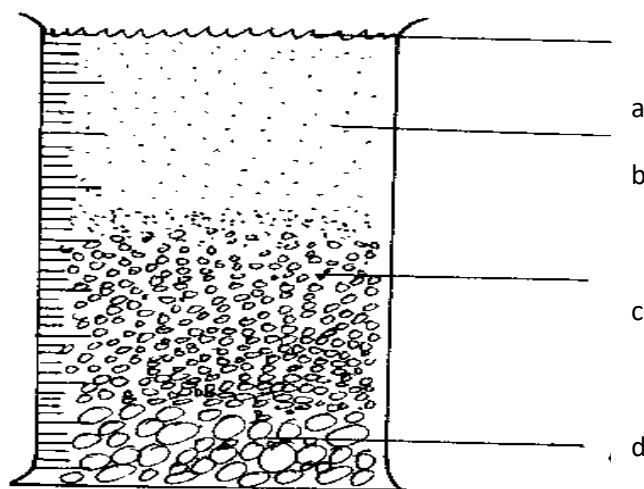
**Answer ALL the questions in this section in the spaces provided.**

**19.** Study the methods of crop propagation illustrated below and answer the questions that follow



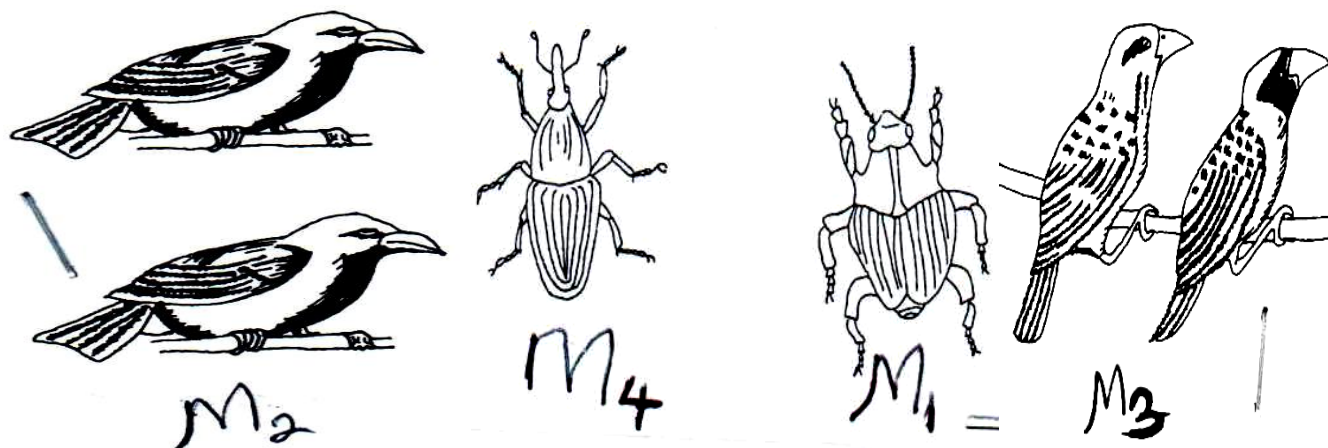
- Identify the methods of crop propagation illustrated above 1,2 and 3 **(1½ marks)**
- Give **one** condition under which method (1) above is carried out. **(½ mark)**
- State **two** disadvantages of using stem cuttings for planting. **(2marks)**

**20.(a)** Form two student put some soil sample in a measuring cylinder, added some water and sodium carbonate and then covered the cylinder with the hand and shook the cylinder for about two minutes. He left the cylinder on the bench for one hour. The result was as shown below.



- Name the layers marked **a,b,c** and **d**. **(4x ½ =2 mark)**
- What was the function of sodium carbonate in this experiment? **(1mark)**
- What was the aim of this experiment? **(1mark)**

21. The diagrams below illustrate both field and storage pests



a) Identify the pests in the illustration.

(4marks)

M<sub>1</sub>.....

M<sub>2</sub>.....

M<sub>3</sub>: .....

M<sub>4</sub>: .....

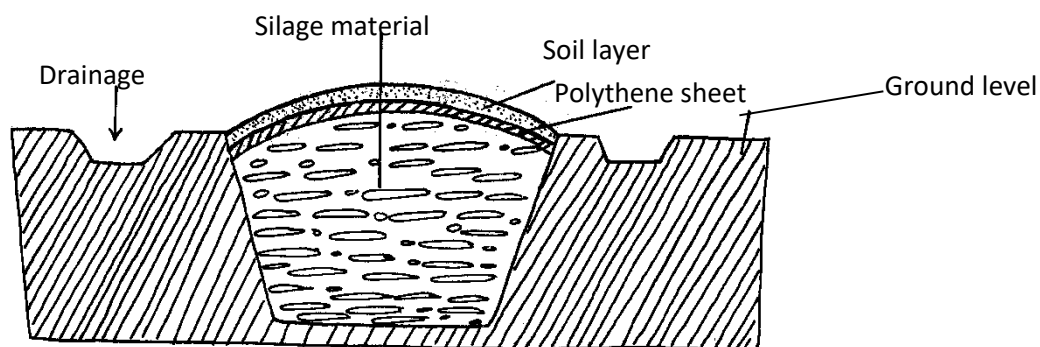
b) State **two** ways by which pest labelled M<sub>2</sub> causes loss in cereal crops.

(1marks)

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

(2marks)

22. Study the diagram on silage making shown below and answer the questions that follow.



a) Identify the silage preparation method shown above.

(1mark)

b) Give **two** precautions taken when ensiling to ensure high quality silage.

(2marks)

c) State **two** advantages of this method of forage conservation over other methods.

(2marks)

### SECTION C ( 40 marks)

*Answer TWO questions from this section in the spaces provided*

- 23.a) State and explain **five** agricultural services offered to farmers. (10marks)
- b) Give ways in which labour efficiency can be increased in the farm (5marks)
- c) State **five** the functions of co-operatives. (5marks)

24.a) Give one reason in each case why it is difficult to control the following weeds.

- i) Oxalis
- ii) Nut grass
- iii) Couch grass (3marks)
- b) State **two** main factors which contributes to competitive ability of weeds. (2marks)
- c) State **five** safety measures that a farmer must consider to prevent danger to other people and environment when using herbicides. (5marks)
- d) Describe any **five** cultural methods of controlling weeds. (10marks)

25. a) The table gives information on the supply of potatoes in a local market.

Price /bag in Kshs. 1000	Quantity Demanded (in bags)	Quantity supplied (in bags)
1	20	2
2	15	8
3	12	12
4	10	16
5	9	19

- i) using a suitable scale and on the same axis, draw and label supply and demand curves using the data given. (8marks)
- ii) From the curves drawn, what is the price per bag when 15 bags of potatoes were supplied?(1mk)
- iii) How many bags of potatoes were supplied at Equilibrium price. (1mark)
- b) Outline the harvesting of coffee under following subheadings
- i) Stage of harvesting (2marks)
- ii) Procedure of harvesting (5marks)
- iii) Precautions when **harvesting** (3marks)

# **KCSE 2025 TOP SCHOOLS MOCKS**

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

### **FOR EXAMINERS USE ONLY**

SECTION	QUESTINS	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)
  - (a) Castor oil
  - (b) Cod liver oil
14. State four reasons for breeding animals. (2mks)
15. State the functions of each of the following
  - (a) Shovel (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. (1 1/2mks)

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)

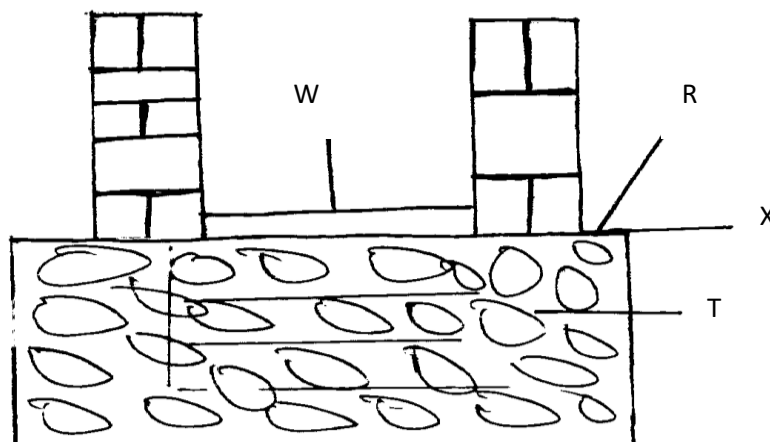
**SECTION B (20 MARKS)**

**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.



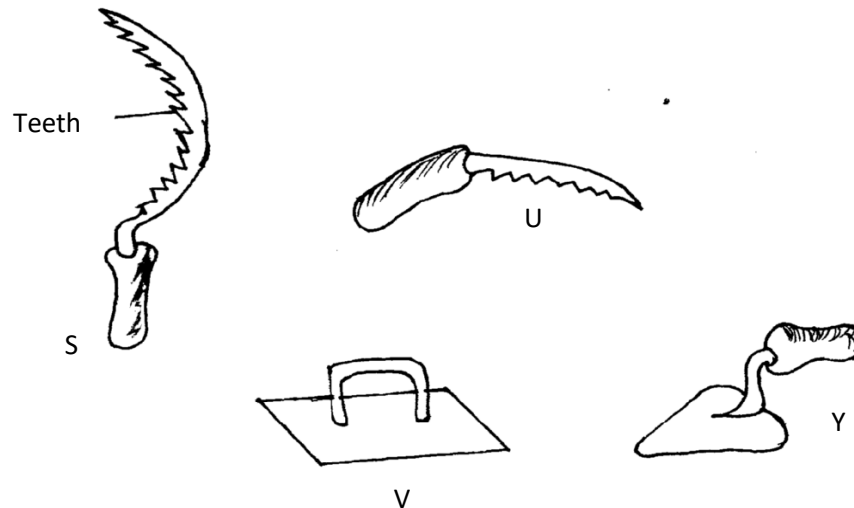
- (i) A farmer wants to select a breeding stock. State the three physical qualities the farmer should asses in order to select a pig. (3mks)
- b) Study the illustration below of a hard flow foundation in a farm structure.





- 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)**

# ***THE END***

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