

KCSE 2024 REGIONAL MOCKS

AGRICULTURE

*The PDF Comprises of A Compilation of 4
Top Joint National Mocks Administered
across the 47 Counties for KCSE Class of
November 2024*

For Marking Schemes:

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KENYA EDUCATORS CONSULTANCY

Table of Contents

1.	Nairobi & Central Joint National mocks 2024
2.	Nyanza & Western Joint National mocks 2024
3.	Coastal & Eastern Joint National mocks 2024
4.	Rift Valley & North Eastern Joint National mocks 2024

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KENYA EDUCATORS CONSULTANCY

MINISTRY OF EDUCATION (KNEC COMPLIANT)

NAME.....ADM..... CLASS.....

443/1

AGRICULTURE

PAPER 1

CLASS OF KCSE 2024

TIME: 2 HOURS

THE NAIROBI & CENTRAL REGIONS KCSE

JOINT NATIONAL MOCK 2024

Kenya Certificate of Secondary Education (KCSE)

SECTION A: (30 MARKS)

Answer ALL the questions in this section in the spaces provided

1. What is the meaning of seed dressing? (1mk)

2. Give four advantages of row planting. (2mks)

3. List four factors to be considered when choosing site for tomato nursery. (2mks)

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4. State three reasons of treating water in the farm. (1 ½ mks)

5. Give three ways through which HIV/ AIDS affect agriculture. (1 ½ mks)

6. State four advantages of overhead irrigation. (2mks)

7. State three ways of conveying water in the firm. (2mks)

8. A farmer in Premier was advised to apply 150kg C.A.N/ha while top dressing the maize crop. CAN, contains 21% N. Calculate the amount of nitrogen applied per ha. (2mks)

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9. Give two reasons why opportunity cost is zero. (1mk)

10. Give three importance of tissue culture in crop production. (2mks)

11. State four principles which govern agricultural economics. (2mks)

12. Highlight four problems facing the marketing of cabbages. (2mks)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

13. State four variable costs in maize production. (2mks)

14. State four constituents of soil. (2mks)

15. Give four types of product -product relationships. (2mks)

16. Differentiate between topping and top-dressing as used in pastures. (1mk)

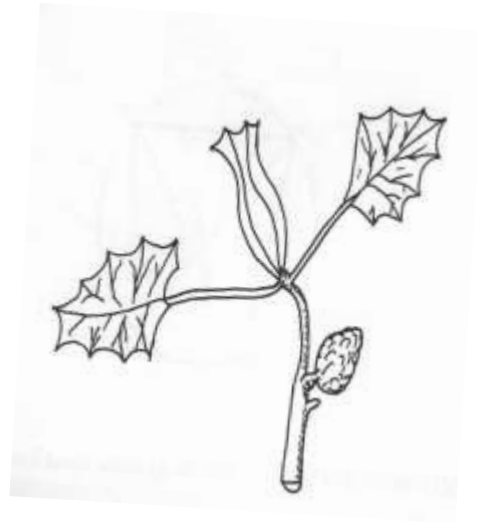
17. State five factors which influence the spacing of crops. (2mks)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

SECTION B (20 MKS)

Answer ALL Questions in this section

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



A

B

- (a) Identify the weeds (2mks)

A-----

B-----

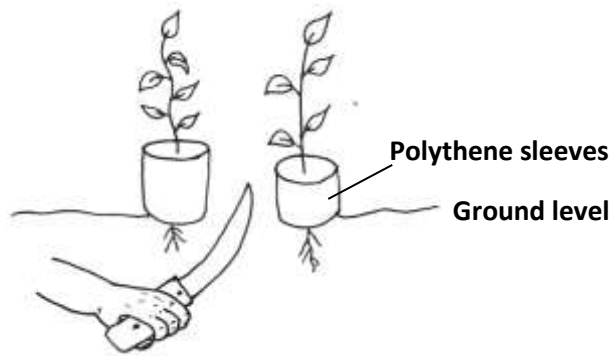
- (b) State the harmful effects of the weed B above (1mk)

- (c) Give **four** advantages of leasehold tenure systems (2mks)

19. 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)

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20. The diagram below illustrates a nursery practice carried out on tree seedlings before transplanting. Study it carefully and then answer the questions below



(a) Identify the practice being carried out on the diagram (1mk)

(b) Give **three** reasons why the practice is encouraged when raising tree seedlings (3mks)

(c) Give **two** reasons why the polythene sleeves are used in the nursery bed as shown in the diagram (2mks)

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21. (a) Calculate the elasticity of demand when 20 bags of potatoes are demanded at a price of Kshs.1000 while 22 bags were demanded at Kshs.800. (4mks)

(b) Identify the type of elasticity of demand resulting from the situation above (1mk)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

SECTION C (40MKS)

Answer any two Questions in this section

22. (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)
23. Describe the production of Rhodes grass (*Chloris gayana*) under the following sub-headings
- (a) Land preparation (5mks)
 - (b) Pasture establishment (8mks)
 - (c) Maintenance (7mks)
24. (a) State **four** major questions a farm manager needs to ask and answer while preparing a partial budget (4mks)
- (b) Under what conditions is partial budget an appropriate tool for planning (4mks)
- (c) Mzee mkulima has 5 hectare of arable land which is under maize. He wishes to know whether replacing 0.3 ha of maize with beans the following season would be worthwhile. The fertilizer rate would have to be increased from 2 bags per hectare for maize to 2.5 bags per hectare, for beans and an extra 40 man days of casual labour per hectare would be necessary as a result of the change. Average yield of maize and beans are 56 and 90 bags per hectare respectively. The prices are ksh 1200 per bag of maize and ksh 300 per bag of beans. Seed costs are ksh 1350 per 10 kg of maize ksh 200 per 50 kg beans DAP fertilizer costs ksh 1400 per 50 kg bag. Labour is paid at ksh 150 per man day . he would require ten bag of beans seed and 1 bag of maize seed to caver 0.3 of ha.

Draw up a partial budget and indicate the effects of the change (12mks)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

NAME.....ADM..... CLASS.....

443/2

AGRICULTURE

PAPER 2

CLASS OF KCSE 2024

TIME: 2 HOURS

THE NAIROBI & CENTRAL REGIONS KCSE

JOINT NATIONAL MOCK 2024

Kenya Certificate of Secondary Education (KCSE)

SECTION A: (30 MARKS)

Answer ALL questions in this section in the spaces provided.

1. State FOUR categories of produce stores found in a farm (2mks)

2. Give TWO reasons for tooth clipping in piglets (1mk)

3. State TWO uses of a rake (1mk)

4. State TWO diseases that may affect bees in a colony (1mk)

5. Differentiate between a heifer and a cow (1mk)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

6. Name FOUR species of livestock that are affected by tapeworms (2mks)

7. Name FOUR viral diseases that affect poultry (2mks)

8. State FOUR disadvantages of natural incubation in poultry production (2mks)

9. Name TWO causes of bad flavors in milk production (1mk)

10. Give TWO causes of death in cows during or after parturition (1mk)

11. Differentiate between roughages and concentrates as used in livestock nutrition (1mk)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

12. List THREE zoonotic diseases that can occur on the farm (1½ mks)

13. State FOUR uses of harrows on the farm (2mks)

14. State FOUR signs of heat in pigs (2mks)

15. Name FOUR plant species that can be used to establish live fences (2mks)

16. Give TWO benefits of scattering grains in a deep litter poultry house (1mk)

17. List THREE types of lubrication systems in farm machines (1½ mks)

18. List THREE sheep breeds reared for meat production in Kenya (1½ mks)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

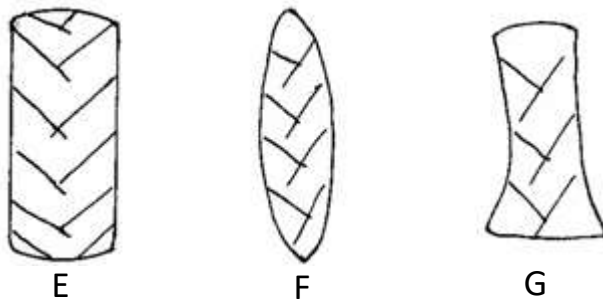
19. List THREE farm tools used during castration of farm animals (1½ mks)

20. Give FOUR disorders associated with calcium deficiency in livestock (2mks)

SECTION B: (20 MARKS)

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

21. The diagram **below** represents conditions of the tyre.



(a) Which diagram represents the correct pressure in a tractor tyre? (1 mark)

.....

(b) Identify the mistakes with the other two tyres. (2 marks)

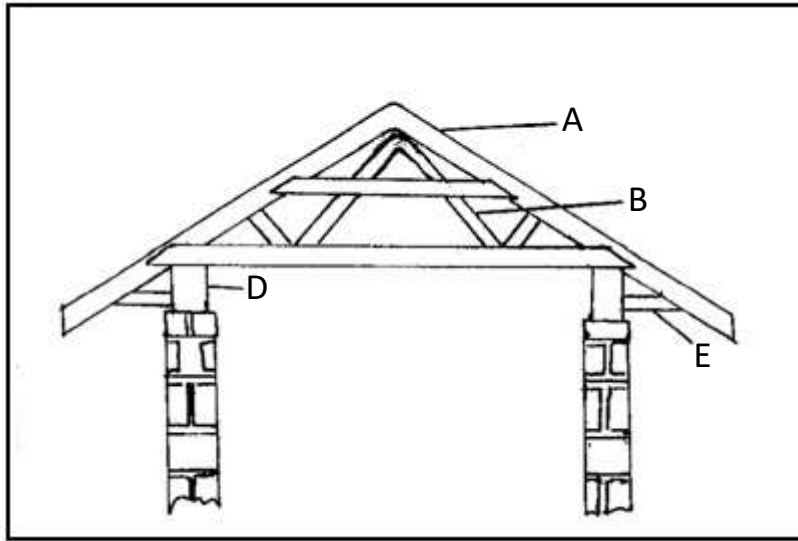
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(c) Give the correct measures taken for each tyre mentioned in (b) above. (2 marks)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

22. Study the diagram **below** of a farm structure.



(a) Identify the structure **above**. (1 mark)

(b) Name the parts labeled.(4 marks)

A

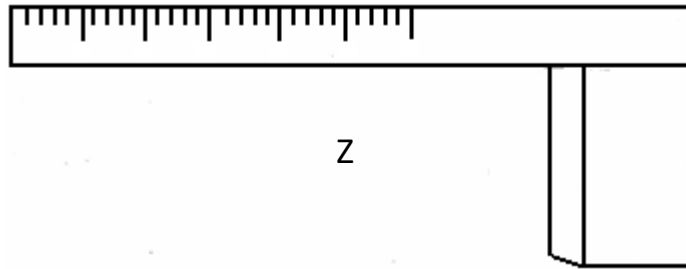
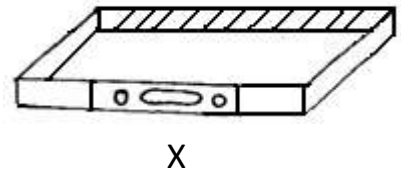
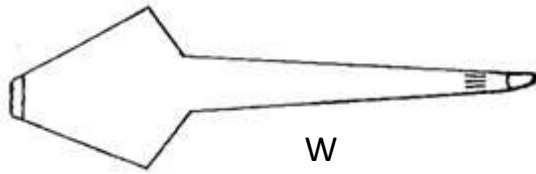
B

E

D

MINISTRY OF EDUCATION (KNEC COMPLIANT)

23. Study the tools **below** and answer the questions **below**.



(a) Identify the tools.(3 marks)

W

X

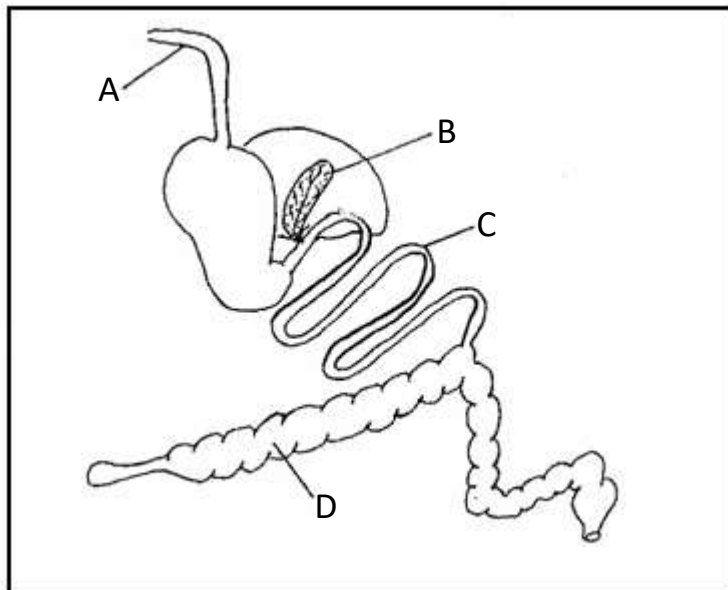
Z

(b) What are the functions of tools? (2 marks)

Z

X

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



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

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

A

B

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

C

D

MINISTRY OF EDUCATION (KNEC COMPLIANT)

SECTION C

Answer any two questions in this section in the spaces provided

25. (a) Give the differences between a petrol and a diesel engine (10mks)
(b) Describe the daily maintenance of a tractor (10mks)
26. (a) What are disease predisposing factors? (2mks)
(b) State **five** disease predisposing factors in livestock (5mks)
(c) State **five** predisposing factors of mastitis in dairy cattle (5mks)
(d) Explain any **four** general methods of disease control in livestock (8mks)
27. Discuss the management of layers from day old up to point of laying in a deep litter system. (20mks)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

NAME.....ADM..... CLASS.....

443/1

AGRICULTURE

PAPER 1

CLASS OF KCSE 2024

TIME: 2 HOURS

THE NYANZA & WESTERN REGIONS KCSE

JOINT NATIONAL MOCK 2024

Kenya Certificate of Secondary Education (KCSE)

INSTRUCTIONS TO CANDIADATES

1. Write your name, admission number and class
2. This paper contains **three** sections
3. Answer all question in section **A** and **B**
4. In section **C** answer any two questions
5. Candidates should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing
6. This paper has 15 printed page
7. Candidates must answer all the questions in English

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	

MINISTRY OF EDUCATION (KNEC COMPLIANT)

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 (½mark)

.....

(b) Softening of water

(½mark)

.....

(c) Killing pathogens (½mark)

.....

2) State **two** causes of forking in carrots (1mark)

.....

.....

3) Name **four** books of account kept by a farmer (2 mark)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

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4) Give the element whose deficiency in plants is characterized by the following

(a) Interveinal chlorosis of the leaves

..... (½ mark)

(b) Blossom end rot in tomatoes

..... (1/2mark)

(c) Scorched edges of a leaf

..... (½ mark)

5) Give **two** roles of agriculture in industrial growth. (1 mark)

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6) Difference between olericulture and pomoculture (1 mark)

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7 a) Give **two** disadvantages of hydram pumps (1 mark)

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(b) State **two** methods of harvesting Maize (1 mark)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

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8) a) What is Agro forestry. (1mark)

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b) State **four** ways in which Agro forestry is important. (2marks)

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9) Give **four** farming practices that may help in achieving minimum tillage. 2 marks)

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10) Define the term "Economic Injury Level" of a crop. (1 mark)

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11) State **two** conditions when opportunity costs are zero (1 mark)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

12) State **four** factors that influence soilfluction (2 marks)

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13) Give **four** conditions that necessitate clearing of land. (2 marks)

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14) Give **four** reasons for keeping health records (2 marks)

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15) Name any **two** diseases that affect bean production in the field. (1 mark)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

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16) State **four** benefits of crop rotation (2 marks)

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17) State **four** management practices in a vegetable nursery (2 marks)

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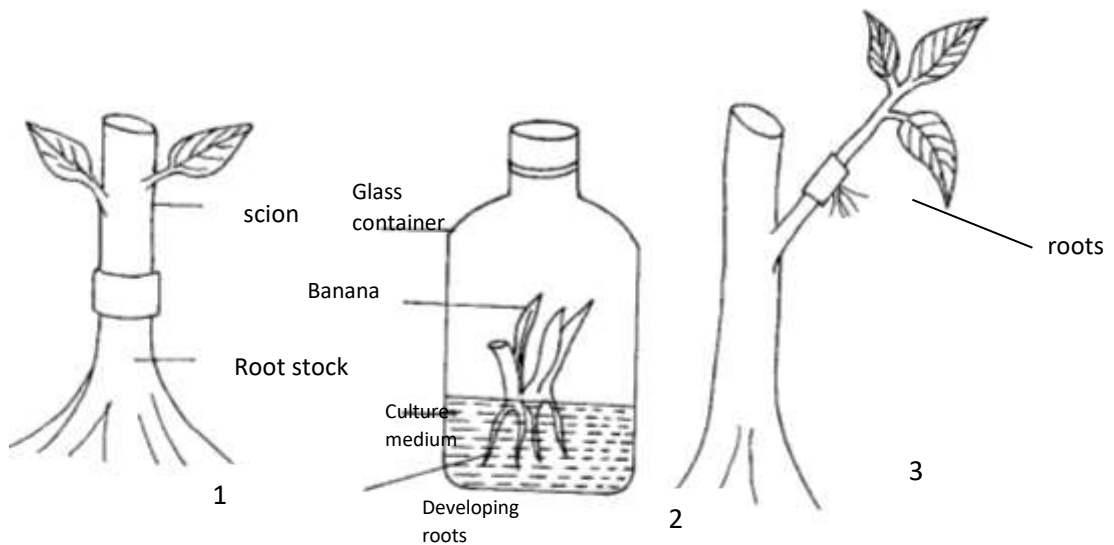
18) Give **four** methods of land reform practiced in Kenya (2mks)

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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



a) Identify the methods of crop propagation illustrated above.

1..... (½ mark)

2 (½ mark)

3..... (½ mark)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

b) Give **one** condition under which method (1) above is carried out. (½ mark)

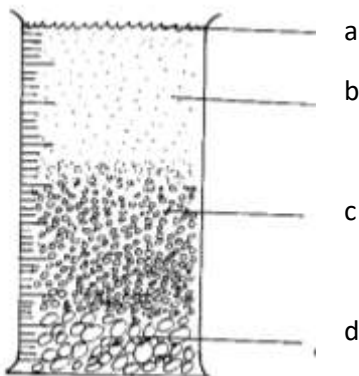
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c) State **two** disadvantages of using stem cuttings for planting. (2marks)

.....

.....

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.



(i). Name the layers marked a,b,c and d. (4x ½ =2 mark)

a)

b)

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c).....

d).....

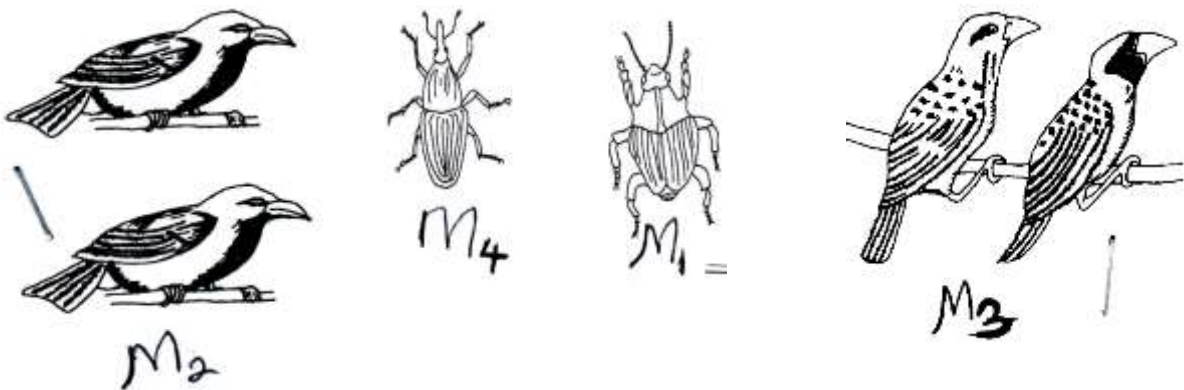
(ii) What was the function of sodium carbonate in this experiment? (1mark)

.....

(iii) 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)

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M₁.....

M₂.....

M₃:

M₄:

b) State **two** ways by which pest labelled M₂ causes loss in cereal crops.

(1marks)

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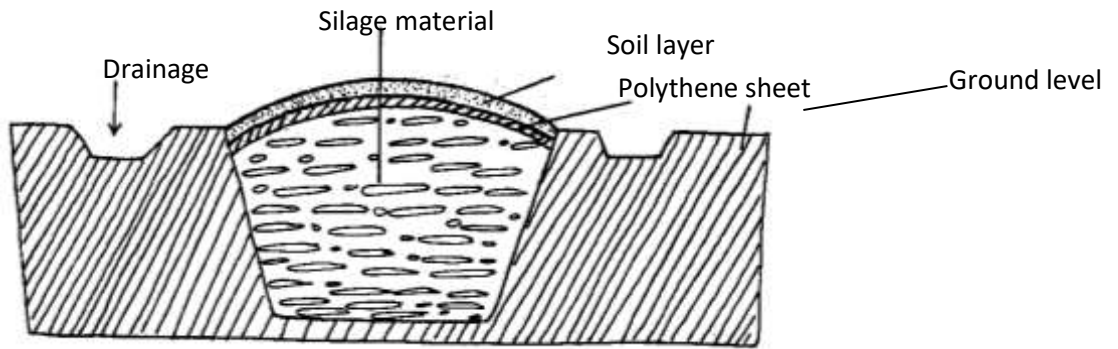
c) State **two** methods which are used to control the pest labeled M₂.

(2marks)

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

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a) Identify the silage preparation method shown above.

(1mark)

.....

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

(2marks)

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.....
.....

c) State **two** advantages of this method of forage conservation over other methods. (2marks)

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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)

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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? (1mark)
- 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)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

NAME.....ADM..... CLASS.....

443/2

AGRICULTURE

PAPER 2

CLASS OF KCSE 2024

TIME: 2 HOURS

THE NYANZA & WESTERN REGIONS KCSE

JOINT NATIONAL MOCK 2024

Kenya Certificate of Secondary Education (KCSE)

Instructions to candidates.

- a) Write your name and adm number in the spaces provided above.
- b) Sign and write the date of examination in the spaces provided above.
- c) This paper consists of **three** sections; **A, B and C**.
- d) Answer all the questions in section **A and B**.
- e) Answer **any two** questions in section **C**.
- f) All answers should be written in the spaces provided.
- g) This paper consists of **10 printed pages**.
- h) Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.
- i) Candidates should answer all the questions in English.

For Examiner's Use Only

Section	Question	Maximum Score	Candidate's Score
A	1-16	30	
B	17-20	20	
C	21-23	60	
Total Score			

MINISTRY OF EDUCATION (KNEC COMPLIANT)

SECTION A (30 marks)

ANSWER ALL QUESTIONS IN THIS SECTION IN THE SPACES PROVIDED

1. Name **four** light breeds of poultry. (2mks)

2. State **four** conditions necessary for egg incubation (2mks)

3. Give **four** disadvantages of inbreeding. (2mks)

4. Give **four** factors that a farmer may consider while carrying out culling in livestock production. (2mks)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

5. State **four** predisposing factors of pneumonia in lambs (2mks)

6. Name **four** tools used in dehorning. (2mks)

7. Give **four** general methods of controlling livestock diseases. (2mks)

8. State **four** features of clean milk. (2mks)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

9. Name **four** factors to consider while choosing construction materials in the farm.

(2mks)

10. State **four** control measures of liver fluke (2mks)

11. State **four** factors that influence the pulse rate of an animal. (2mks)

12. Distinguish between the Saanen and Jamnapari breeds of goats. (2mks)

13. Give **four** types of beehives. (2mks)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

14. State **two** ways of caponisation in poultry. (2mks)

15. Name **four** disadvantages of battery cage system. (2mks)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

SECTION B (20 MARKS)

ANSWER ALL THE QUESTIONS IN THIS SECTION IN THE SPACES PROVIDED.

16. Study the diagram of a cow below and answer the subsequent questions.



i. Identify the livestock equipment marked E above.

(1mk)

ii. State **two** uses of the equipment in 17 (i) above.

(2mks)

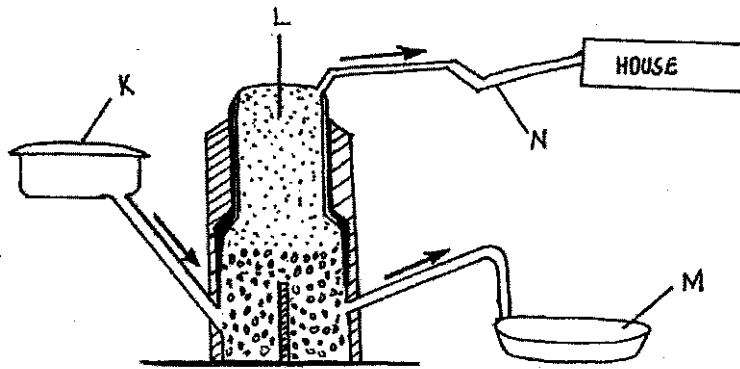
iii. Name the **two** types of identification marks applied on the animal above.

(1mk)

iv. Show with an arrow and mark with letter P where pye-grease acaricide should be applied on the animal. (1mk)

17. Study the illustration of a biogas digester plant and answer the questions that follow.

MINISTRY OF EDUCATION (KNEC COMPLIANT)



a) Name the major component of biogas that is trapped in part L above.
(1mk)

b) Give the name of the material deposited in part labeled M and its use.
(1mk)

name _____

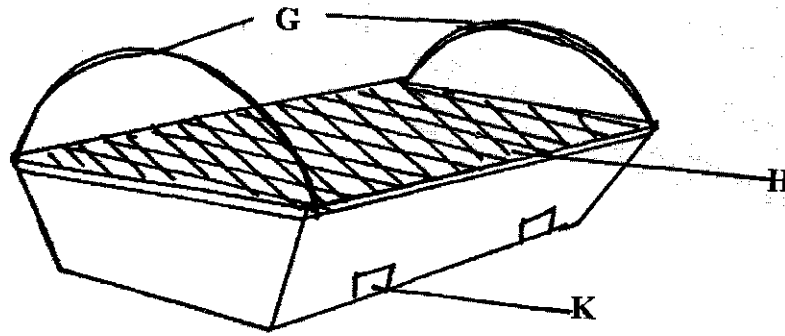
Use _____

c) What is the component of K in the biogas production?
(1mk)

d) Give **three** disadvantages of biogas as a source of farm power.
(3mks)

18. Below is a diagram illustrating a beehive? Study carefully and answer the questions that follow.

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a) Name the type of beehive shown

(1mk)

b) Name the parts labeled H and K

(1mk)

H _____

K _____

c) Give **two** importance of part G

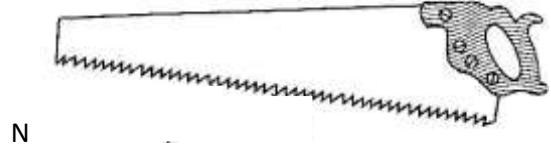
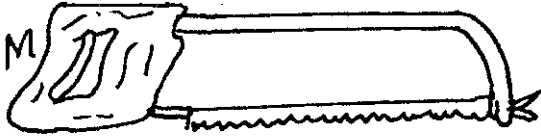
(2mks)

d) Give **two** tools used for detaching honey combs during honey harvesting.

(2mks)

19. Study the diagram below of farm tools and equipment and answer questions that follow.

MINISTRY OF EDUCATION (KNEC COMPLIANT)



i. Identify tool M and N (1mk)

M _____

N _____

ii. State **one** functional difference between M and N (1mk)

iii. State **two** maintenance practices of tool M. (1mk)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

SECTION C (40 MARKS)

ANSWER ANY TWO QUESTIONS FROM THIS SECTION IN THE SPACES PROVIDED AFTER THE SECTION.

- 20. (a) State **four** reasons for breeding cattle. (4mks)
- (b) Explain **four** routine management practices carried out during rearing of dairy calves. (8mks)
- (c) State **five** reasons for swarming in bees. (5mks)
- (d) List **three** ways of controlling liver flukes in sheep. (3mks)
- 21. (a) Discuss the disease Trypanosomiasis under the following sub headings.
 - i. Causal organism (1mk)
 - ii. Animals attacked (1mk)
 - iii. Mode of transmission (1mk)
 - iv. Symptoms (2mks)
 - v. Control (2mks)
- (b) Explain **six** measures used in controlling diseases in livestock. (12mks)
- 22. (a) Explain the management of growers in deep litter system until the time of laying (1mks)
- (b) State and explain **eight** materials and equipment used during milking. (8mks)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

NAME _____ **ADM** _____ **INDEX NO** _____

443/1

AGRICULTURE

PAPER 1

CLASS OF KCSE 2024

TIME: 2 HOURS

THE COASTAL & EASTERN REGIONS KCSE

JOINT NATIONAL MOCKS 2024

Kenya Certificate of Secondary Education (KCSE)

Instructions:

- Write your name and index number in the space provided at the top of this page .
- Sign and write the date of the examination in the space provided above
- This paper consist of three section A, B, and C
- Answer all questions in section A and B
- Answer any two questions in section C
- All answers should be written in the spaces provided
- Candidate should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing .
- Candidate should answer the question in English

FOR EXAMINERS USE ONLY

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATE SCORE
A	1-16	30	
B	17-20	20	
C		20	
		20	
	TOTAL SCORE	90	

MINISTRY OF EDUCATION (KNEC COMPLIANT)

SECTION A (30 MRKS)

Answer all question in this section in the space provided

1. Differentiate between olericulture and pomoculture as used in crop production
(1mrk)

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2. List the physical weathering agents in soil formation process (1 ½ mrks)

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3. Give four method of farming (2mrks)

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4. Give two examples for each of the following types of cost incurred in broiler production .

e) Variable cost (2 marks)

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f) fixed cost (2 marks)

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5. Give four advantages of crop rotation .(2mrk)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

6. State four factors that that should be considered when classifying crop pest (2mrks)

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7. Give three reasons why a water logged soil is unsuitable for most crops(1 ½)

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8. Give four advantages of tissue culture (2mrks)

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9. Outline four observable indicators of economic development of a nation (2mrks)

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10. Outline four indicators of well decomposed manure (1 ½)

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11. Give two conditions where opportunity cost does not exist (2mrks)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

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12. Give four management practice that promote high herbage yields in pasture production (2mrks)

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13. Give three reasons why primary cultivation should be done early before the onset of the rains(1 ½)

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14. Give two examples of farm records that are general in nature .(1mrk)

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15. Give four role of nitrogen in plants (2mrks)

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16. Give four benefits of possessing a land title deed (2mrks)

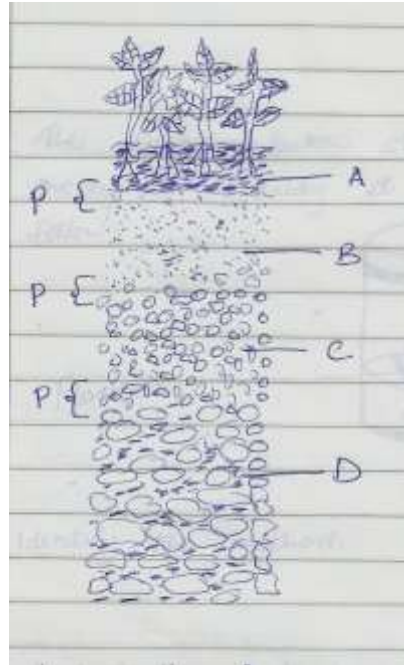
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MINISTRY OF EDUCATION (KNEC COMPLIANT)

SECTION B (20 MRKS)

Answer all the questions in this section in the spaces provided

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



v. Identify the feature that the diagram above represents in the study of soil (1mrk)

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vi. What is the name given to the part labeled p(1mrk)

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vii. Give a reason why part b is also referred to as layer of accumulation (1mrk)

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viii. State two ways in which the knowledge of the above feature would be of benefit to farmer (2mrks)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

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



a) Identify the method (1mrk)

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b Name two crops that can be propagated using this method.(1mrk)

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c. Give three ingredients used when preparing the tissue culture.(1 ½)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

19. The following information was obtained from the records of Mr Juma's farm for the year ended on 31st March 2011

<u>Particulars</u>	<u>kshs</u>
Opening Valuation	100,000
Calves	72,000
Hired Labour	21,000
Sales of milk	13,000
Sales of cereals	33,000
Rent	9,000
Feed	5,300
Seed	1,700
Fertilizers	4,700
Sales of Vegetables	9,300
Sales of poultry	1,800
Sales of fruits	700
Pesticides	1,250
Depreciation	650
Repair and Maintenance	950
Interest on loans	200
Closing Valuation	9,0000

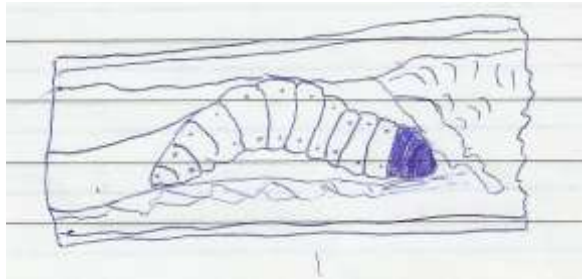
- vi. using the information given above , prepare a profit and loss account for Mr Juma's farm for the year ended 31st March (7mrks)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

vii. Giving a reason, State whether Mr. Juma's farm made a profit or loss (1/2 mark)

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20) The diagram below shows a maize stalk infected by a certain pest .Study it and answer the questions that follow .



a) Identify the pest (1/2)

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b) Apart from maize, name another crop attacked by the pest named above (1/2 mark)

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c) Give three cultural measures that can be applied to control the pest (3mrks)

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SECTION C (40MARKS)

Answer any two questions in this section in the spaces provided

21a) Describe six advantages of rotational grazing (6mrks)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

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viii. Explain eight ways in which soil fertility can be maintained (8mrks)

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d) Explain six factors considered when drawing a farm plan (6mrks)

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22a) Explain the factors that influence the type of irrigation to be used in a farm (8mrks)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

ix. Explain six reasons for pruning coffee.(6mrks)

x. Describe 6 ways in which lab our productivity can be improved on a farm (6mrks)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

23a) Describe five importance of agro -forestry in soil and water conservation (6mrks)

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b) Describe the procedure of silage making (10mrks)

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c) Describe five effect of over application of nitrogenous fertilizer(5mrks)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

NAME _____ **ADM** _____ **INDEX NO** _____

443/2

AGRICULTURE

PAPER 2

CLASS OF KCSE 2024

TIME: 2 HOURS

THE COASTAL & EASTERN REGIONS KCSE
JOINT NATIONAL MOCKS 2024
Kenya Certificate of Secondary Education (KCSE)

INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the spaces provided above.
2. This paper has **THREE** sections: A , B and C
3. Answer **ALL** the questions in section A and B and any **TWO** questions in section C
4. ALL answers **MUST** be written in the spaces provided.
5. Do not remove any pages from this booklet.

FOR EXAMINER'S USE ONLY

	Questions	Maximum score	Candidate's score
A	01-17	30 marks	
B	18-22	20 marks	
C	23-25	40 marks	
		Total score	

This paper consists of 8 printed pages.
Candidates should check to ensure that all pages are printed as indicated and no questions are missing

MINISTRY OF EDUCATION (KNEC COMPLIANT)

SECTION A (30 MARKS)

Answer ALL questions in this section.

1. State four problems associated with nomadic pastoralism method of farming.

(2 marks)

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2. State one use of the following tools in the farm. **(2 marks)**

a) Spoke shave

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b) Pipe wrench

.....

c) Stock and die

.....

d) Wire strainer

.....

3. Name one exotic dairy cattle breed in Kenya which produces milk with:

a) Highest butter fat content. **(1 mark)**

.....

b) Lowest butter fat content. **(1 mark)**

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4. Name two dual purpose breeds of dairy cattle reared in Kenya. **(1 mark)**

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5. Name two sources of energy concentrates. **(1 mark)**

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

6. Using Pearson’s square method, compute a 100kg ration with 20% DCP from sunflower seed cake which contains 10% DCP and simsim seed containing 60% DCP. (4 marks)

7. Name three livestock diseases transmitted by ectoparasites. (1½marks)

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8. Name an intermediate host for the following internal parasites. (2 marks)

a) Tapeworms

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b) Liver flukes

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9. Give any two reasons for docking in sheep rearing. (1 mark)

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10. State two functions of the queen in a beehive. (1 mark)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

11. State three maintenance practices carried out on a piggery unit. (1½ marks)

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12. State four disadvantages of an electrical fence. (2 marks)

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13. State four advantages of using a spray race for controlling parasites. (2 marks)

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14. Give four disadvantages of artificial insemination in livestock production.

(2 marks)

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15. Give any four structural requirements that a calf pen should possess. (2 marks)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

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16. List two signs of infertility in cows. (1 mark)

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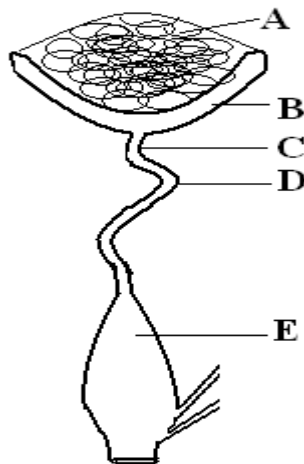
17. Give two methods of introducing vaccines to livestock. (2 marks)

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SECTION B (20 marks)

Answer ALL questions in this section.

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



(i) Name the parts labelled A, B, C, D and E in the diagram.

(2½ marks)

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

MINISTRY OF EDUCATION (KNEC COMPLIANT)

(ii) State the function of each part.

(2½ marks)

A.....

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B.....

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C.....

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D.....

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E.....

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19. Give two reasons why a jersey breed cattle is adapted to arid and semi arid areas.

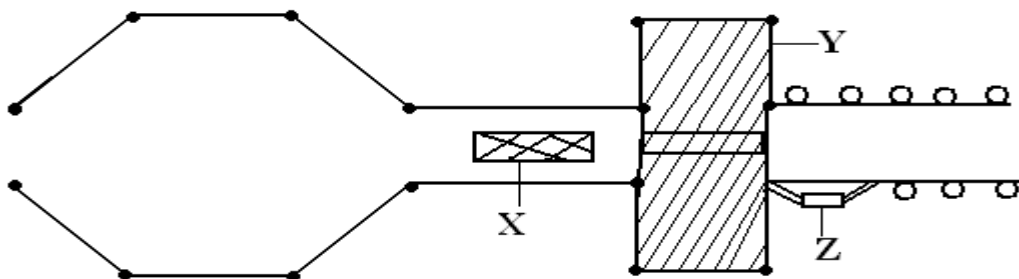
(2marks)

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20. The diagram below represents an aerial view of a farm structure. Study it carefully and answer the questions that follow.



a) Identify the structure. (1 mark)

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b) Name the parts labeled X, Y and Z. (3 marks)

X.....

MINISTRY OF EDUCATION (KNEC COMPLIANT)

Y.....

Z.....

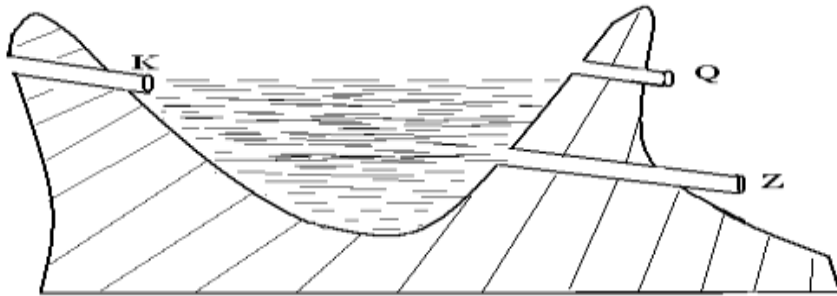
c) List two roles of the part labeled Y. **(2 marks)**

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21. Give two reasons for carrying out hoof trimming. **(1 mark)**

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22. The illustration below is a farm structure.



a) Identify the structure. **(1 mark)**

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b) Name the parts labeled K, Q and Z. **(3 marks)**

K.....

Q.....

Z.....

c) Give four maintenance practices carried out on the above structure. **(2 marks)**

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

SECTION C (40 MARKS)

Answer ANY TWO questions in this section

- 23. a) Give five functions of vitamins in livestock production. (5 marks)
- b) Describe the importance of colostrum to young animals within the first week of birth. (10 marks)
- c) Outline five advantages of embryo transplant technology in cattle management. (5 marks)

- 24. a) Mention four methods of water harvesting. (4 marks)
- b) Describe the different types of micro catchments used in water conservation. (10 marks)
- c) Explain the importance of micro catchments. (6 marks)

- 25. a) Outline ten factors to consider when selecting gilt for breeding stock. (10 marks)
- b) Explain the economic importance of parasites to livestock animals. (10 marks)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

Name:.....Index No:.....

School:.....Sign:.....Date:.....

443/1

AGRICULTURE

CLASS OF KCSE 2024

Paper 1

Time : 2 Hours

THE RIFT VALLEY & NORTH EASTERN REGIONS
KCSE JOINT NATIONAL MOCKS 2024.

Kenya Certificate of Secondary Education (KCSE)

INSTRUCTIONS TO CANDIDATES

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

FOR EXAMINER'S USE ONLY

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATES SCORE
A	1-19	30	
B	20-22	20	
C	23-25	20	
TOTAL SCORE		90	

MINISTRY OF EDUCATION (KNEC COMPLIANT)

SECTION A (30 MKS)

Answer all the questions in this section in the spaces provided

1.State three characteristic of shifting cultivation. (1 1/2mks)

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2.State any four factors that determine the spacing of a crop . (2mks)

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3.State two conditions under which the opportunities cost is zero in a farming practice.

(11/2mks)

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4.Give two activities carried out during hardening off tomatoes seedling . (2mks)

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5.State three benefits of minimum tillage in crop production . (1 1/2mks)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

6. Differentiate between Olericulture and Pomoculture as used in crop production. (1mks)

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7. Name three negative effects of strong wind on Agriculture . (1 1/2mks)

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8. Differentiate between hybrid and composite as used in crop production . (1mk)

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9. Name three reasons for treating water in the farm. (1 1/2mks)

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10. Outline four disadvantages of communal land tenure system. (2mks)

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11. List three aspects of light that influence crop growth . (1 1/2mks)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

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12. List three reasons for conserving forage. (1 1/2 mks)

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13. Name four factors that influence soil erosion. (2 mks)

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14. What is integrated pest management. (1 mk)

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15. Name four types of water pumps which can be used in the farm. (2 mks)

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16. State four factors that determine the stage at which a grain crop is ready for harvesting.

(1 1/2 mks)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

17. Name four methods of farming. (2mks)

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18. State two crop production practices that can be carried out to maintain optimum plant population. (1mk)

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19. State four information contained in land title deed. (2mks)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

SECTION B (20 MARKS)

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

20 . A farmer has four plots P1,P2,P3,& P4 as shown in the table below .

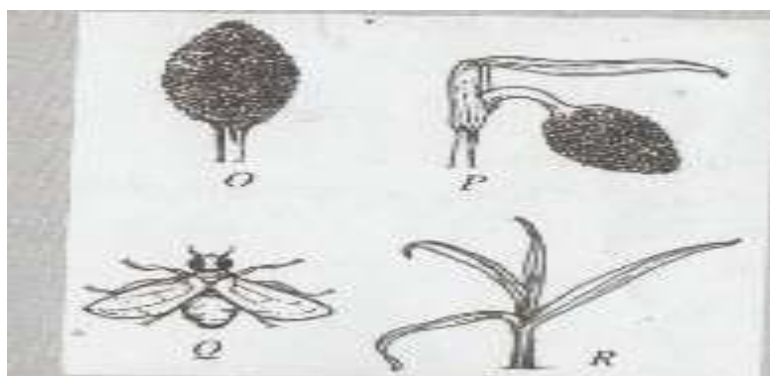
P1	P2	P3	P4
Infested with Bacteria wilt	Deficient in Nitrogen	Infested with witch grass(strigaspp)	Prone to soil erosion

a)A Farmer intends to grow Maize ,Irish potatoes ,beans and Rhodes grass .plan a rotation for the first year of the rotation system. **(2mks)**

b)Account for the plan above . **(4mks)**

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21)Study the illustration below and answer the question that follow.



MINISTRY OF EDUCATION (KNEC COMPLIANT)

a)Name the varieties which is resistantto bird attack . (1mk)

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b)Give a reason for your answer in a above. (1mk)

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.....

c)Identify pest Q which has attacked sorghum seedling labeled R. (1mk)

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d).State two methods that are used in controlling birds in a field of sorghum.(2mks)

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22.Below is a diagram of a crop pest .



a) Identify the pest in the diagram . (1mk)

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b) Suggest two ways of controlling the pest . (2mks)

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c) Name any two diseases of cabbages. (2mks)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

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d) Give three advantages of training in crops. (3mks)

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SECTION C (40 MARKS)

Answer any two questions in this section in the space provided.

23.a) Outline ten harmful effects of crop pest (10mks)

b) State the effect of land fragmentation (10mks)

24. Describe the production of tomatoes under the following sub heading :

- I. Ecological requirement (3mks)
- II. Land preparation (4mks)
- III. Transplanting (4mks)
- IV. field management practices (3mks)

b) Outline six importance of crop rotation. (6mks)

25.a) outline ten safety precautions when using Herbicides. (10mks)

b) state and explain biotic factors that influence agriculture. (10mks)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

Name:.....Index No:.....

School:.....Sign:.....Date:.....

443/2

AGRICULTURE

CLASS OF KCSE 2024

Paper 2

Time : 2 Hours

THE RIFT VALLEY & NORTH EASTERN REGIONS
KCSE JOINT NATIONAL MOCKS 2024

Kenya Certificate of Secondary Education (KCSE)

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 provided above.

*This paper consist of three sections, **A,B** and **C**. Answer all questions in sections **A** and **B** and any **Two** questions from section **C**.*

All answers be written in the spaces provided after every question.

For Examiners use only

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATES SCORE
A		30	
B		20	
C		20	
		20	
	TOTAL	90	

MINISTRY OF EDUCATION (KNEC COMPLIANT)

SECTION A (30 Marks)

Answer all question in this section in the spaces provided.

1 Study the table below fill in the blanks to show the term used to refer to parturition and young ones of the following animals? (2mks)

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

2 Name two tools used to trim overgrown hooves in sheep. (1mk)

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3 Name three dual purpose breeds of sheep. (1 ½ mks)

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4 State four symptoms of mastitis in cattle. (2mks)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

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5 State two functions of the queen bee in a bee colony. (1mk)

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6 State four factors affecting the digestibility of a feed. (2mks)

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.....
7 State four harmful effects of ticks. (2mks)

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.....
8 State four conditions that may inhibit milk let-down during milking. (2mks)

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.....
9 Give three disadvantages of using a plunge -dip for tick control. (1 ½ mks)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

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10 Name two viral diseases that affect each of the following livestock.

(a) Cattle..... (1mk)

(b) Poultry..... (1mk)

11 State four desirable factors to consider when siting a fish pond. (2mks)

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12 Give three disadvantages of cross breeding in cattle. (1 ½ mks)

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13 State four conditions that would encourage hens to eat eggs in poultry production.(2mks)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

14 Outline four reasons for maintaining farm tools and equipment in good condition.

(2mks)

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15 State four nonpathogenic causes of livestock diseases.

(2mks)

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16 In the preparation of artificial colostrum, what is the role of each of the following?

(a) Caster oil

(½ mk)

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(b) Cod liver oil

(½ mk)

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17 What is the importance of applying milking salve on teats of a lactating cow?

(½ mk)

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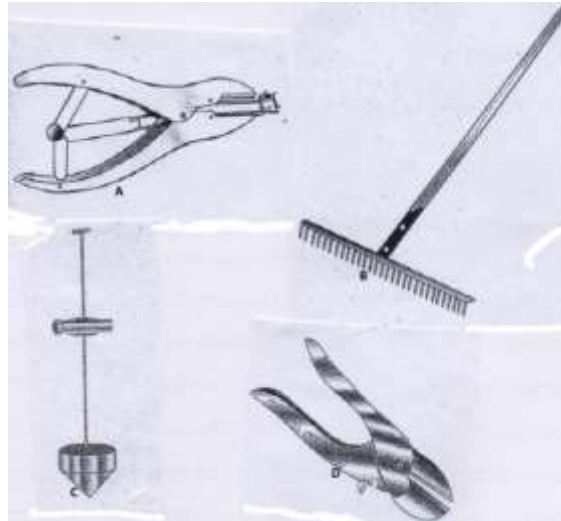
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MINISTRY OF EDUCATION (KNEC COMPLIANT)

SECTION B (20 Marks)

Answer all questions in this section in the spaces provided

18 Below are illustrations of farm tools labeled **A,B,C** and **D**. Study them and answer questions that follow.



(a) Give the correct name of each of the tools illustrated above.

(2mks)

A.....

B.....

C.....

D.....

(b) How is each of the tools **B** and **D** maintained? (1mk)

B.....

D.....

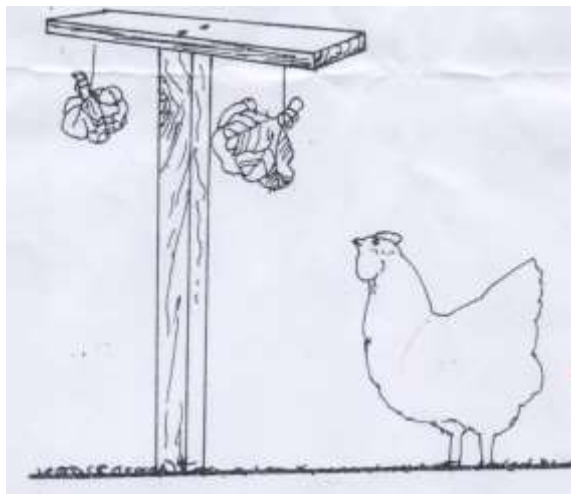
MINISTRY OF EDUCATION (KNEC COMPLIANT)

(c) State one proper use of each of the tools A and C. (2mks)

A.....

C.....

19 The diagram below illustrates a method of providing feed stuff to chicken in a chicken house. Study the diagram and answer the questions that follow.



(i) What type of feed stuff is illustrated in the diagram above? (1mk)

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(ii) Give two reasons why the feed stuff should be suspended above the height of the chicken.(2mks)

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(iii) Apart from above practice, name one other practice that can be used in place of practice (ii) above. (1mk)

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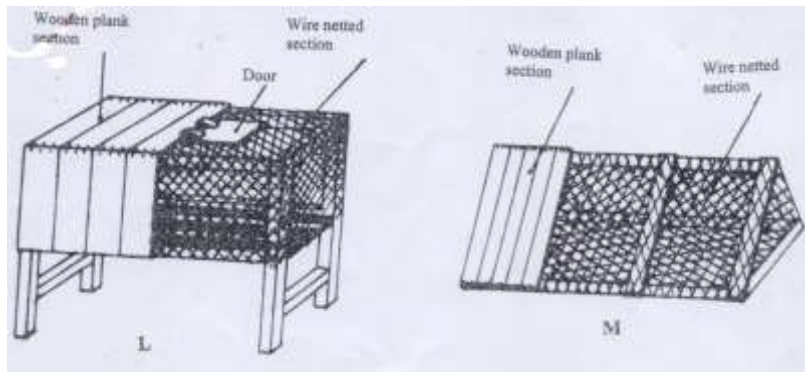
MINISTRY OF EDUCATION (KNEC COMPLIANT)

(iv) What other advantage of the practice named in (ii) in a deep litter house.

(1mk)

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20 The diagrams below illustrate two types of rabbit hutches labeled L and M. Study the diagrams and answer questions that follow.



(a) In which section of the hutches should the water and feed troughs be placed?

(1mk)

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(b) State one use of the wooden section of the hutch.

(1mk)

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(c) What additional facility should be included inside the hutches for a doe?

(1mk)

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(d) Identify the type of floor shown in hutch L above.

(1mk)

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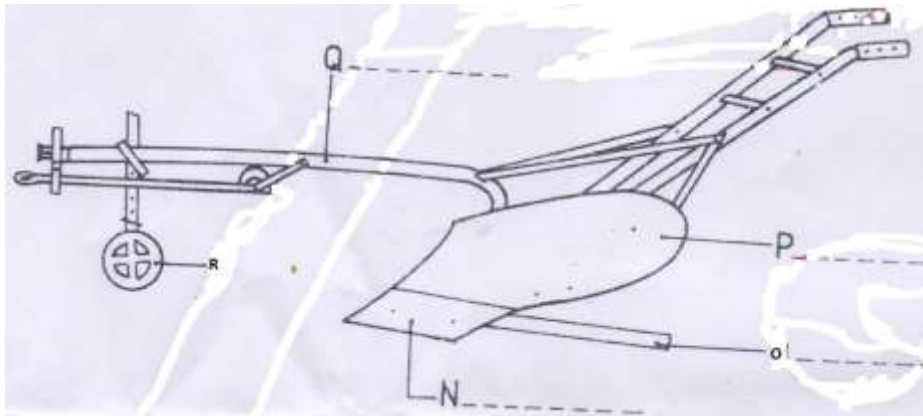
MINISTRY OF EDUCATION (KNEC COMPLIANT)

(e) Give one advantage of the type of floor illustrated in hutch L above.

(1mk)

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21 Below is a diagram of an Ox-plough. Study it and answer questions that follow.



(a) Identify the parts labeled N,O,P and Q on the diagram above.

(2mks)

N.....

O.....

P.....

Q.....

(b) State one maintenance practice that should be carried out in each of the parts labeled N and R.

N..... (1mk)

R.....(1mk)

MINISTRY OF EDUCATION (KNEC COMPLIANT)

(c) What adjustment should be carried out on the implement so as to reduce the depth of ploughing. (1mk)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

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(iv) three control measures. (3mks)

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(c) Outline four ways through which power is made available from a tractor. (4mks)

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23 (a) Explain six requirements of a good calf pen. (6mks)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

(b) (i) Give four reasons for steaming up a dairy cow. (4mks)

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(ii) Explain the management practices carried out on a dairy calf from birth and immediately after birth. (4mks)

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(c) Outline six signs of round worms (*Ascaris* spp) infestation in cattle. (6mks)

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MINISTRY OF EDUCATION (KNEC COMPLIANT)

(c) Describe the process of digestion in the rumen.

(4mks)

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