KCSE 2024 FINAL PREDICTION

AGRICULTURE

(PREDICTIONS TRIALS 1-10)

Final series of Possible Questions expected to be examined in the forthcoming Final Exams. This provides a framework and means of illumination to guide our candidates in preparation for the KCSE Examinations scheduled for November 2024

The following are Questions to expect in KCSE 2024.

CONFIDENTIAL!

For Marking Schemes

Mr Isaboke 0746 222 000 / 0742 999 000

ALL THE BEST IN KCSE!

KCSE 2024 FINAL PREDICTION

EXPECTED EXAM 1

443/1

AGRICULTURE

PAPER 1 *(Theory)*

TIME: 2 HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO STUDENTS

a) *Write your name and Admission number in the spaces provided at the top of this page s*

b) *This paper consists of three sections: A, B and C*

c) *Answer all questions in sections A and B*

d) *Answer any two questions in section C*

e) *All answers should be written in the spaces provided*

f) *Candidate should answer the questions in English*

FOR EXAMINER'S USE ONLY

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATE SCORE
A	1-20	30	
B	21-24	20	
C		20	
		20	
	TOTAL SCORE	90	

SECTION A. (3O MARKS)

Answer all questions in this section in the spaces provided.

1. What is organic farming? **(1 mark)**
2. Give **three** reasons why burning is discouraged in land-clearing **(1½ marks)**
3. Give **two** cultural methods of controlling bollworms in a tomato crop. **(1mark)**
4. State **three** ways through which agricultural activities pollute water **(1½ marks)**
5. List **two** advantages of proper stocking rate in pasture management **(1mark)**
6. State **three** ways through which mono-cropping leads to loss of soil fertility **(1½ marks)**
7. State the law of diminishing returns in economics **(1mark)**
8. State **four** factors to consider when deciding on a farming system to undertake **(2 marks)**
9. Give **two** benefits of earthing-up in Irish potatoes production **(1mark)**
10. List **four** steps followed in land adjudication **(2 marks)**
11. Give **two** factors that determines the depth of ploughing **(1mark)**
12. List **four** methods of fertilizer application **(2marks)**
13. Give **four** precautionary measures that a farmer should put into consideration when harvesting cotton **(2 marks)**
14. State **four** factors that should be considered before deciding to use a chemical method of pest control. **(2 marks)**
15. State **four** ways in which grass cover help to conserve soil **(2 marks)**
16. Give **four** advantages of rotational grazing **(2 marks)**
17. State **three** advantages of landlordism and tenancy land tenure system **(1½ marks)**
18. State **three** benefits of using tissue culture in crop propagation **(1½ marks)**
19. How are following conditions prevented in carrot production **(1½ marks)**

i) Cracking……..

ii) Forking……..

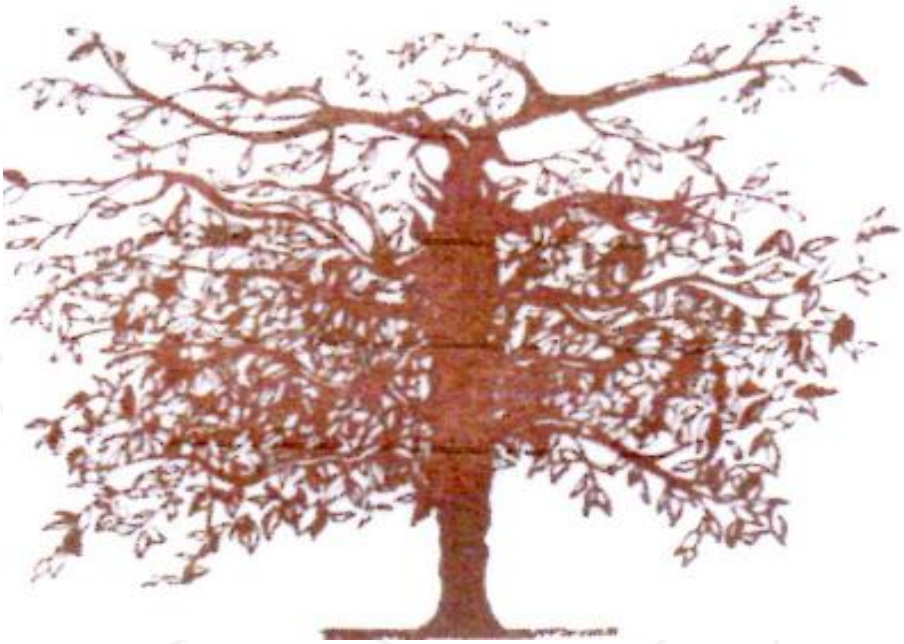
iii) Greening……

20. List **two** micro-catchments systems in water harvesting **(1 mark)**

SECTION B: (20 MARKS)

Answer all questions in this Section on the spaces provided

21. The diagram below shows a pruning method in coffee. Study it and answer the questions that follow

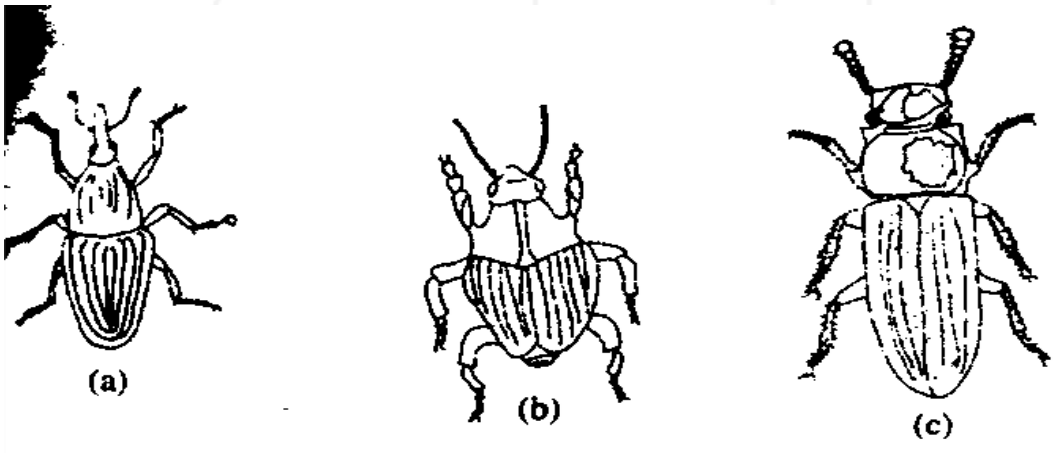


a) Identify the pruning method illustrated above **(1mark)**

b) Explain how the pruning illustrated above is carried out **(2½ marks)**

c) State **three** reasons for pruning in coffee **(1½ marks)**

22. The diagrams below shows some storage pests. Study them and answer the questions that follow

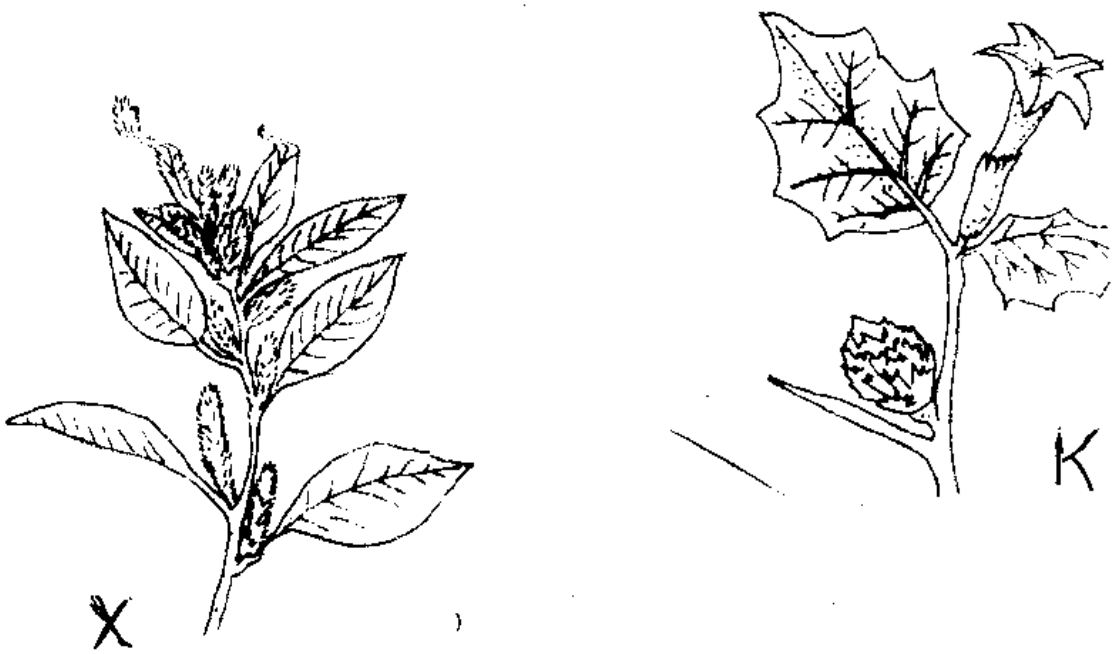


a) Identify the pest a, b and c **(3marks)**

ii) State **two** kinds of damages they cause to stored produce **(1mark)**

iii) State **two** methods which can be used to control storage pests **(1mark)**

23. The diagram below shows two different weeds x and k. Study them and answer the questions that follow



a) Identify the weeds x and k **(2 marks)**

X ……..

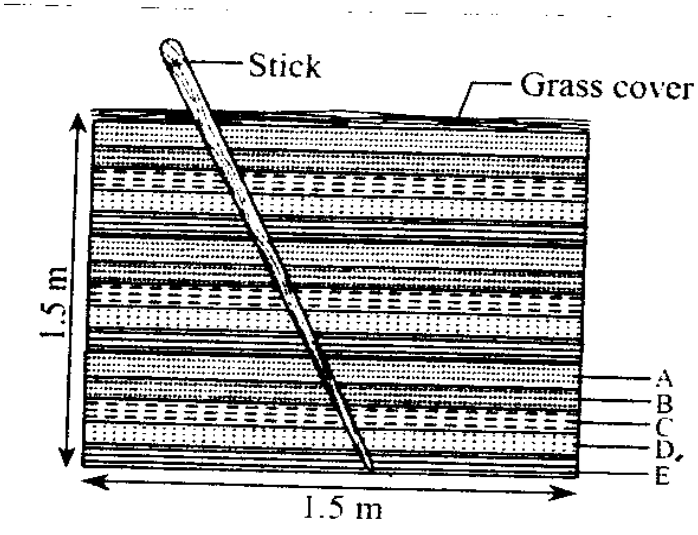
K ……..

b) On basis of plants morphology, identify the class of weed x **(1 mark)**

c) Give **one** disadvantage of weed k **(1 mark)**

d) Give **one** beneficial use of weed x **(1mark)**

24. Below is a diagram of a compost pit. Study it and answer the questions that follow



i. Identify the layers A, B, C, D and E **(2½ marks)**

A……

B……

C……

D……

E……

ii. State **two** importance reasons of layer B **(1 mark)**

iii. State the functions of the stick and the grass cover **(1 mark)**

iv. Name the other method of making compost manure **(½ mark)**

SECTION C: (40 MARKS)

Answer any two questions in section on the spaces provided after question 24

25. a) Describe the risks and uncertainties encountered by wheat farmers in Kenya.**(7 marks)**

b) State the importance of Agroforestry **(7 marks)**

c) Outline **six** factors that affect rooting of cuttings **(6 marks)**

26. a) Discuss the influences of soil structure on crop production **(7 marks)**

b) Outline **six** factors that influences price of a commodity or service **(7 marks)**

c) Explain **six** types of pesticides according to their mode of action **(6 marks)**

27. a) Describe the uses of farm accounts in the farm **(8 marks)**

b) Explain **six** advantages of using seeds for crop propagation **(6 marks)**

c) Discuss factors to consider when selecting implements to use for primary cultivation **(6marks)**

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KCSE 2024 FINAL PREDICTION

EXPECTED EXAM 1

443/2

AGRICULTURE

PAPER 2 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO STUDENTS

a) *Write your name and Admission number in the spaces provided at the top of this page*
b) *This paper consists of three sections:* ***A*** *,* ***B*** *and* ***C***
c) *Answer all questions in sections* ***A*** *and* ***B***
d) *Answer any two questions in section* ***C***
e) *All answers should be written in the spaces provided*
f) *Candidate should answer the questions in English*

FOR EXAMINER'S USE ONLY

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1-19	30	
B	20-23	20	
C		20	
		20	
	TOTAL SCORE	**90**	

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SECTION A (30 Marks)

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

1. State the functional difference between a **rasp** and a **bustard file**. **(1 mark)**

2. List **two** pork breeds of pigs. **(1 mark)**

3. Differentiate between the terms **type** and **breed** as used in livestock production when studying breeds of livestock. **(2 marks)**

4. Name **two** developmental stages of a liver fluke in water snail. **(1 mark)**

5. Name the term used to indicate the act of parturition in the following animals. **(2marks)**

Animal	Parturition term used
Cattle	
Pigs	
Sheep	
Goats	

6. Give **four** importance of docking in sheep management **(2 marks)**

7. What does the term Epistasis mean in livestock improvement? **(1 mark)**

8. Give **two** disadvantages of using a spray race. **(1 mark)**

9. Outline **four** symptoms of coccidiosis disease in kids. **(2 marks)**

10. Name **four** causes of stress in a flock of layers. **(2 marks)**

11. State **four** advantages of natural feeding in calf rearing. **(2 marks)**

12. Give **four** implements that obtain power from power take off shaft (PTO) of a tractor. **(2 marks)**

13. State **four** harmful effects of keds. **(*melophagus ovinus*).** **(2 marks)**

14. List **four** enzymes produced in the jejunum. **(2 marks)**

15. Give **two** methods of applying acaricides on animals. **(1 mark)**

16. List **four** components of power transmission system. **(2 marks)**

17. Give **four** maintance practices carried out on chisels**.** **(2 marks)**

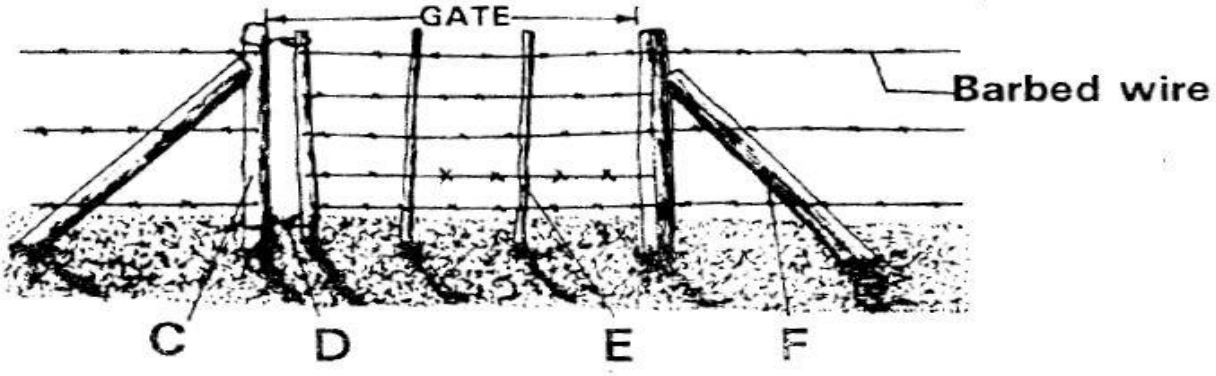
18. Name **two** bloodless methods of castration. **(1 mark)**

19. State **two** uses for which wind power is harnessed. **(1 mark)**

SECTION B (20 Marks)

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

20. Study the farm structure below and answer the questions that follow.



a) Identify the type of gate illustrated above. **(1 mark)**

b) Distinguish between a **pass** and a **gate.** **(1 mark)**

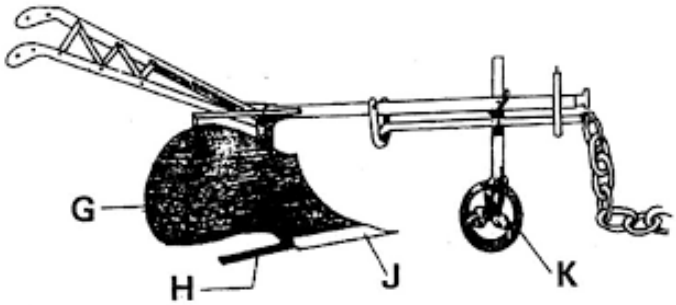
c) List **four** types of tools used in the establishment of the structure above**.** **(2 marks)**

d) State **one** practice maintenance carried out on the structure. **(1 mark)**

21 Below are farm implements, study them and answer the questions that follow.



U



V

a) Name the farm implements shown above. **(2 marks)**

U…….

V……

a) Identify the parts labeled H and G above. **(2 marks)**

H…….....

G ……

b) State **one** field condition under which the implement U can be used. **(1 mark)**

22 The photographs below show a rearing practice carried out on farm animals. Study them carefully and answer the questions that follow.





a. Name the routine management practice shown above. **(1 mark)**

b. Name the tool shown above used to carry out the practice. **(1 mark)**

c. State three reasons for carrying out the practice shown above. **(3 marks)**

23. Below is a photograph of a rabbit breed, study it and answer the questions that follow.



a) Identify **two** observable characteristics used to identify the above rabbit breed. **(2 marks)**

b) State **one** reason why the above rabbit breed is preferred by most farmers. **(1 mark)**

c) Give **two** reasons why rabbit keeping is gaining more popularity in Kenya. **(2 marks)**

SECTION C (40 Marks)

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

24. a) Describe East Coast Fever under the following sub-headings.

i) Causal organism **(1 mark)**

ii) Symptoms **(5 marks)**

iii) Control measures **(4 marks)**

b) Describe the requirements of deep litter system. **(5 marks)**

c) State the principles considered while controlling endo-parasites**.** **(5 marks)**

25. a) Describe the daily maintenance /short-term services of a tractor. **(9 marks)**

b) State the characteristics of indigenous cattle that make them survive in marginal areas. **(5 marks)**

c) Explain **six** ways of improving power output while using draught animals. **(6 marks)**

26. a) Explain the role of livestock industry in Kenya's Economy. **(6 marks)**

b) State five sources of carbohydrates in livestock nutrition. **(5 marks)**

c) Describe the procedure of harvesting honey in a Kenya Top Bar Hive . **(5 marks)**

d) State **four** properties of concrete that make it more suitable in construction of farm structures. **(4 marks)**

KCSE 2024 FINAL PREDICTION

EXPECTED EXAM 2

AGRICULTURE

443/1

PAPER 1 (THEORY)

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.*
- *The paper consists of **three** sections A , B and C.*
- *Answer all questions in section A and B in the spaces provided*
- *Answer **any two** questions from section C in the spaces provided*

FOR EXAMINER'S USE ONLY

Section	Question	Maximum score	Candidate's score
A	1–16	30	
B	17	20	
	18		
	19		
	20		
C	21-23	40	
	TOTAL	90	

SECTION A (30 marks)

Answer all questions

1. Give two reasons why agriculture is looked as an artistic practice **(2marks)**

2. Outline two disadvantages of communal land tenure system **(1mark)**

3. Give three different types of soil water **(1 ½ marks)**

4. Give two ways of utilization of napier grass as a forage crop **(1mark)**

5. Give two signs of crop infestation by root nodes nematodes **(1mark)**

6. Name two chemicals used in water treatment **(1mark)**

7. a) A farmer was advised to apply 210 kg of calcium of ammonium nitrate (CAN 21-0-0) per hectare. Calculate the amount of nitrogen required **(2 marks)**

b) Different between fertilizer grade and fertilizer ratio **(2marks)**

8. Give four biotic factors that influence agriculture **(2marks)**

9. a) Give reasons why land should be prepared early in readiness for planting **(2marks)**

(b) State reasons for deep ploughing during land preparation **(2marks)**

10. List two methods of land reclamation **(2marks)**

11. A form four student planted maize for her KCSE agriculture project. She use a spacing of 75cmx25cm; her plot was 4 x3m.

(i) What does 75cm stand for in this statement **(1mark)**

(ii) Calculate the plant population showing your working **(3marks)**

12. Name two pests with piercing and sucking mouth parts **(1mark)**

13. a) Explain the form changing the cycle in coffee growing **(1mark)**

b) State two importance of tissue culture in crop production **(1mark)**

14.Why are leguminous plants preferred for green manure? **(1mark)**

15. i) What is opportunity cost **(1mark)**

ii) A farmer has an option of growing either wheat or maize in her one hectare of land. Wheat gives a return of Kshs. 20, 000 while maize fetches Kshs. 35, 000 in the market. If the farmer chooses to grow wheat, what will be the opportunity cost? **(1mark)**

16. State three control measures of maize streak disease **(1.5marks)**

SECTION B (20 MARKS)

17. The table below shows output of maize in response to increase in D.A.P fertilizers on one hectare of land.

Fixed input land (in ha)	Variable input D.A.P in 30kg-bag	Total product maize yield in 90-kg bag	Average product (AP) maize in 90kg bag	Marginal product (M.P) in 90kg bag
1	0	2	-	-
1	1	5	-	-
1	2	14	-	-
1	3	21	-	-
1	4	26	-	-

a) Fill in the table for average product (A.P) and marginal products (M.P) **(5marks)**

18. The diagrams below illustrate irish potato seed preparation before planting. Study it carefully and answer the questions that follow.



(a) Before the practice.



(b) After the practice.

a) Name the practice used in preparing the seed potato above before planting. **(1mark)**

b) Describe the procedure followed in preparing the seed potatoes for planting. **(3marks)**

c) Give **one** reason for carrying out the practice named above. **(1mark)**

19. The photograph below shows an irish potato plant attacked by a disease. Study it and answer the questions that follow.



a) Identify the disease represented by the photograph. **(1mark)**
b) Name the causative agent of the diseases. **(1mark)**
c) Give **one** other crop that can be attacked by the same disease. **(1mark)**
d) List **two** control measures of the disease. **(2marks)**

20. The photographs below show common weeds C and D in pasture land. Study them carefully and answer the questions that follow.



C



D

a) Identify weeds C and D. **(2marks)**

C……D…….

b) Classify weed D according to plant morphology. **(1mark)**

c) State the major problem posed by each of the weeds above in pasture land. **(2marks)**

C

D

SECTION C (40MARKS)

Answer Any TWO questions in this section

21. (a) Explain **FIVE** cultural methods of pest control **(10marks)**
(b) Outline **FIVE** factors considered in timely planting of annual crops **(10marks)**

22. (a) Outline the process of land Adjudication **(5marks)**
(b) Discuss **five** reasons for carrying out minimum tillage. **(5 marks)**
(c) Explain **5** ways in which soil losses fertility. **(10 marks)**

23. (a) Describe **seven** field management practices in tomato production. **(7marks)**
b. Outline **five** factors that determine water requirements in an animal's body. **(5 marks)**
c. Describe the transplanting of tree seedlings. **(8 marks)**

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KCSE 2024 FINAL PREDICTION

EXPECTED EXAM 2

AGRICULTURE

443/2

PAPER 2 (THEORY)

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.*
- *The paper consists of **three** sections A, B and C.*
- *Answer all questions in section A and B in the spaces provided*
- *Answer **any two** questions from section C in the spaces provided*

FOR EXAMINER'S USE ONLY

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A	1–17	30	
B	18	20	
	19		
	20		
	21		
C	22-24	40	
	TOTAL	90	

SECTION A (30MARKS)

Answer all questions in this section

1. Give **two** reasons for docking in sheep production. **(1 mark)**

2. Give **four** ideal qualities of a good calf pen **(2 marks)**

3. Outline **four** characteristics of Romney marsh sheep breed **(2 marks)**

4. (a) State **two** disadvantages of using metal frames in construction of farm buildings **(1 mark)**

(b) Give **two** reasons for seasoning timber **(1 mark)**

5. Outline **four** reasons for swarming of bees **(2 marks)**

6. List **two** methods that can be used to preserve fish **(1 mark)**

7. (a) What is a notifiable disease? **(1 mark)**

(b) Name **four** examples of notifiable diseases in livestock. **(2 marks)**

8. Name **two** major physical differences between Bactrian and Dromedary breeds of camel.**(1 mark)**

9. State **two** characteristics of heavy poultry breeds. **(1 mark)**

10. List **two** maintenance practices of a wood chisel. **(1 mark)**

11. State **four** ways of controlling tsetse flies. **(2 marks)**

12. State **four** characteristics of livestock roughage feedstuff. **(2 marks)**

13. List **two** equipment used in handling cattle during agricultural exhibition. **(1 mark)**

14. State the gestation period of the livestock animals given below

a) Rabbit **(½ mark)**

b) Goat **(½ mark)**

15. State **four** disadvantages of natural mating **(2 marks)**

16. State **one** egg content added to it at the magnum during egg formation process. **(1 mark)**

17. State **four** methods used to control cannibalism in a deep litter system **(2 marks)**

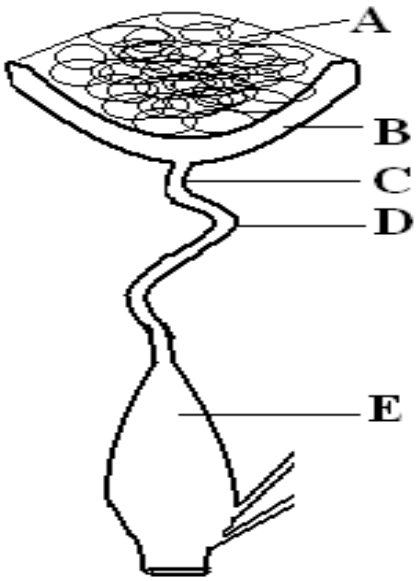
18. (a) Give **three** uses of Biogas in the farm **(1 ½ marks)**

(b) State **three** reasons why the use of wind power on the farm is limited. **(1 ½ marks)**

SECTION B (20 marks)

Answer ALL questions in this section.

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

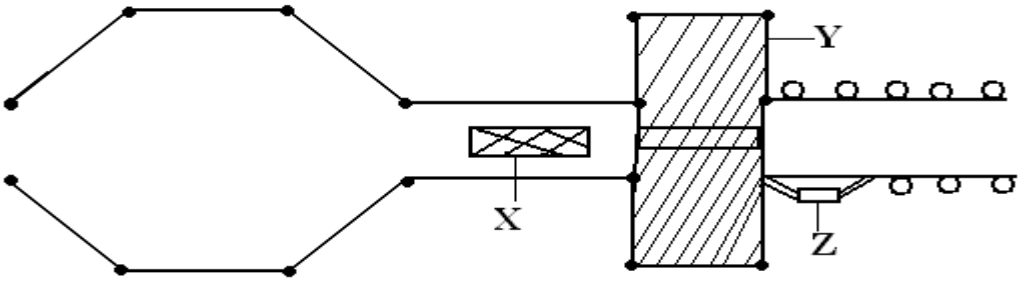


(i) Name the parts labelled A, B, C, D and E in the diagram. **(2½ marks)**

(ii) State the function of each part. **(2½ marks)**

20. Give two reasons why a jersey breed cattle is adapted to arid and semi arid areas. **(2marks)**

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



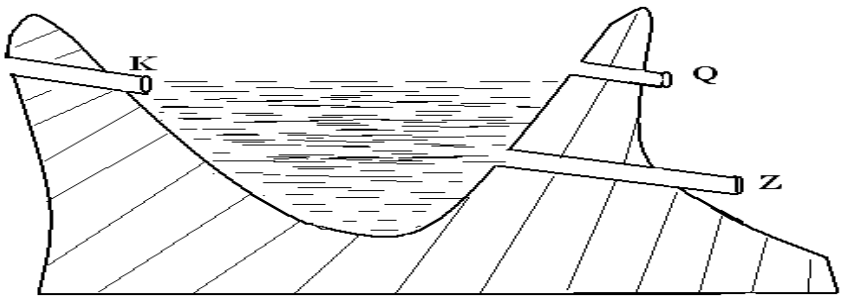
a) Identify the structure. **(1 mark)**

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

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

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

23. The illustration below is a farm structure.



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

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

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

SECTION C

Answer only two questions from this section.

24. (a) Describe the control measures of cannibalism in layers. **(10 marks)**

(b) State **five** maintenance practices of a mould board plough. **(5 marks)**

(c) State the advantages of a four stroke engine. **5 marks)**

25. (a) Describe **six** effects of parasite on livestock **(6 marks)**

(b) Explain **five** reasons for maintaining farm tools and equipment **(5 marks)**

(c) Discuss the management of layers in a deep litter system **(9 marks)**

26. (a) Explain the practices observed in clean milk production **(8 marks)**

(b) Explain the importance of fences in a farm **(12 marks)**

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KCSE 2024 FINAL PREDICTION

EXPECTED EXAM 3

443/1

AGRICULTURE

PAPER 1

TIME: 2 HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES

(a) Write your name, index number, admission number and class in the spaces provided.

(b) Sign and write the date in the spaces provided above.

*(c) Answer **all** the questions in section A and B.*

*(d) Answer any **two** questions in section C.*

(e) Answers should be written in the spaces provided.

For Examiner's Use Only

	Question	Maximum Score	Candidate's Score
A	1-14	30	
B	15-18	20	
C	19-21	20	
		20	
Total score		90	

SECTION A. (30 MARKS)

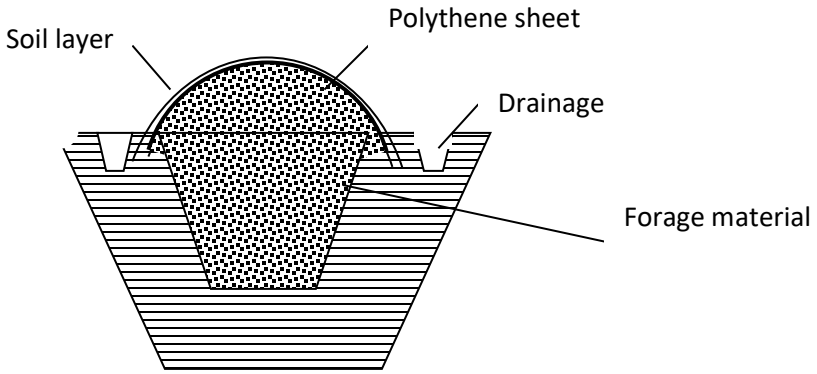
Answer ALL questions in this section in the spaces provided

1. Name **four** classes of livestock farming **(2 marks)**
2. State **four** advantages of landlordism and tenancy land tenure system. **(2 marks)**
3. Give **four** methods of harvesting agro forestry trees **(2 marks)**
4. State **four** characteristics of a good grain store. **(2 marks)**
5. Give **four** structural soil and water conservation measures. **(2 marks)**
6. Name **two** types of labour records kept by a farmer. **(1 mark)**
7. State **four** methods of land acquisition **(2 marks)**
8. State **four** factors which increases seed rate during planting **(2 marks)**
9. State **four** importance of growing crops under optimum temperature **(2 marks)**
10. Name **four** classes of weeds. **(2 marks)**
11. State **four** factors to consider when siting a nursery bed. **(2 marks)**
12. State **four** contents of a tomato sales receipt **(2 marks)**
13. State **four** factors that determine pesticide efficiency. **(2 marks)**
14. State **four** conditions under which land clearance may be necessary. **(2 marks)**
15. Name **two** non-competative market system **(2 marks)**
16. Name **two** methods of soil sampling. **(1 mark)**

SECTION B (20MARKS)

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

17. The diagram below shows a method of forage conservation



(i) Name the structure illustrated above **(1 mark)**

(ii) Name the form of forage conservation using the above structure. **(1 mark)**

(iii) State **two** factors to consider when siting the structure. **(2 marks)**

(iv) Name other form of forage conservation apart from the one illustrated above. **(1 mark)**

18. Below is a format of a record kept by a farmer. Use it to answer the questions the follow.

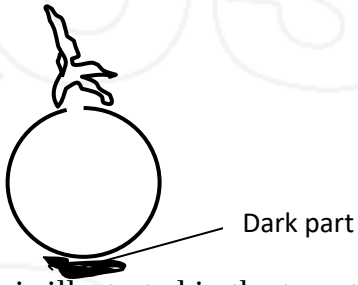
Date	Disease symptom	Animal affected	Drug used	Cost of treatment	Remarks

(i) Name the type of farm records illustrated above. **(1 mark)**

(ii) State two importance of the record to the farmer **(2 marks)**

(iii) Give any two entries on the remark section. **(2 marks)**

19. During harvesting of tomato, a farmer noticed some symptoms at the bottom of the tomato fruit as shown below

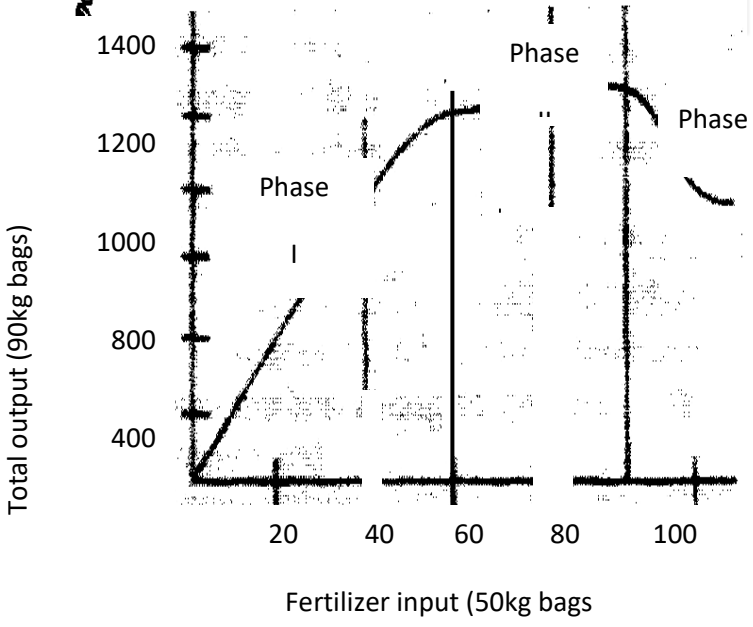


(i) Name the disease whose symptom is illustrated in the tomato (diagram) **(1 mark)**

(ii) State two causes of the disease in the tomato **(2 marks)**

(iii) State two ways of controlling the disease. **(2 marks)**

20. Below is a graphical representation of a law in Agricultural economics. Study the graph carefully and answer the questions that follow.



i) Identify the law represented by the graph. **(1 mark)**

ii) State the law. **(1 mark)**

iii) Explain how each additional unit of fertilizer input relates to total output of maize in the Phases **II and III.**

Phase II …….. **(1 mark)**

Phase III ……..…….. **(1 mark)**

iv) State the importance of the law identified in (i) above to a maize farmer**.** **(1 mark)**

SECTION C (40 MARKS)

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

21. i) State five importance of irrigation. **(5 marks)**

ii) State four roles of calcium in crops. **(4 marks)**

iii) State six cultural disease control measures. **(6 marks)**

iv) Describe five factors that may increase the demand of maize in Bondo market. **(5 marks)**

22. i) State five causes of land fragmentation. **(5 marks)**

ii) Describe five ways by which soil looses its fertility. **(5 marks)**

iii) Describe transplanting of tomato seedlings from the nursery bed to a seedbed**.** **(5 marks)**

iv) Describe the management of agro forestry trees. **(5 marks)**

23. **i)**Describe five ways by which a farmer can overcome risks and uncertainties in maize production. **(5 marks)**

ii) Describe harvesting and precaution taken during harvesting of tea. **(5 marks)**

iii) State four farming practises which may destroy soil structure. **(4 marks)**

iv) State six importance of crop rotation in a farming business. **(6 marks)**

KCSE 2024 FINAL PREDICTION

EXPECTED EXAM 3

443/2

AGRICULTURE

PAPER 2

TIME: 2 HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

(Kenya Certificate of Secondary Education)

INTRODUCTION TO CANDIDATES

- *Write your name and index number, in the spaces provided above.*
- *This paper consists of three sections A, B and C.*
- *Answer all questions in section A and B.*
- *Answer any two questions in section C.*
- *Check and ascertain that all pages are printed*
- *All answer must be in English.*

SECTION	QUESTION	MAX SCORE	CANDIDATES SCORE
A	1 – 22	30	
B	23-26	20	
C		20	
		20	
TOTAL SCORE		90	

SECTION A (30MARKS)

Answer all the questions in this section in the spaces provided

1. Name a breed of camel with two humps **(1/2mks)**

2. State **two** types of roughages as used in livestock nutrition **(1mk)**

3. Give **two** reasons why it is advisable to dehorn cattle **(1mk)**

4. Give **three** properties of clean milk **($1\frac{1}{2}$mks)**

5. Name the tool or equipment used to carry out the following routine livestock practices

a) Castration **(1/2mks)**

b) Vaccination **(1/2mks)**

6. What is the role of iron in livestock nutrition? **(1mk)**

7. List **two** importance of fish farming in Kenya **(1mk)**

8. Name **two** hormones that in fluence milk let-down in dairy cattle **(1mk)**

9. Name **two** exotic breeds of dairy goats reared in Kenya **(1mk)**

10. What is the role of a crop in the digestion system of poultry? **(2mks)**

11. Name **two** zoonotic diseases of livestock **(1mk)**

12. Give **four** routine practices carried out during calf rearing **(2mks)**

13. State **two** factors that determine the amount of water required by an animal **(1mk)**

14. List **three** methods of outbreeding as used in livestock nutrition **($1\frac{1}{2}$mks)**

15. Outline **four** conditions necessary for artificial incubation **(2mks)**

16. List **three** sources of lipids in livestock diet **($1\frac{1}{2}$mks)**

17. Name **two** parasites of bees **(1mk)**

18. State **four** qualities of an ideal calf pen **(2mks)**

19. Give **four** reasons why stones are good as construction materials **(2mks)**

20. Name a disease transmitted by the following vectors **(1mk)**

a) Tsetse fly ……..

b) Brown ear tick ……..

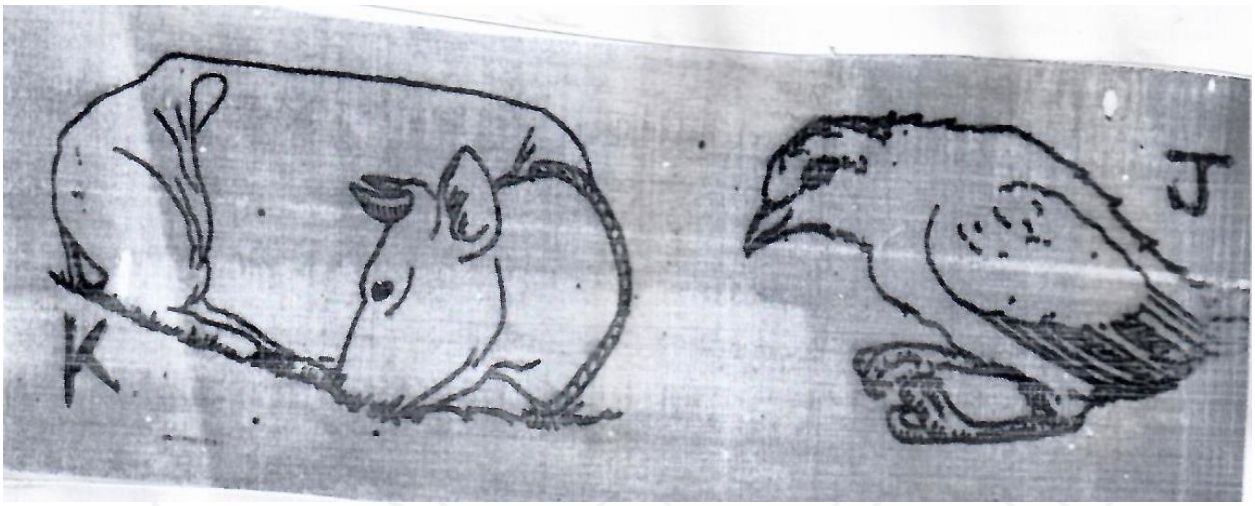
21. List **four** requirements in a deep litter house **(2mks)**

22. Give **two** causes of soft shells in eggs **(2mks)**

SECTION B (20MKS)

Answer all questions in this section in the spaces provided

23. Study the diagram and answer questions that follow.



a) Identify the condition or deficiency disease as illustrated in J and K above

J ……**(1mk)**

K ……**(1mk)**

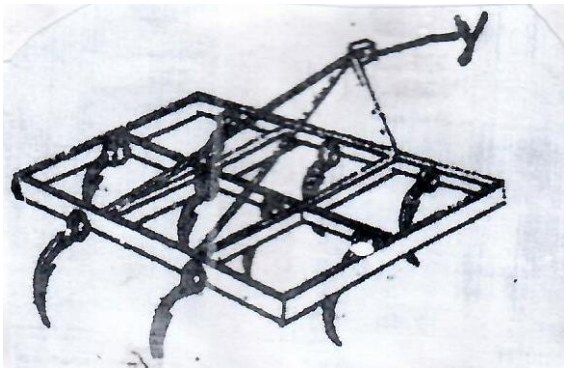
b) Name cause of the deficiency condition in

J ……**(1mk)**

K ……**(1mk)**

c) Give **one** remedy to control condition K in lactating cows **(1mk)**

24. Below is a diagram illustrating a farm implement. Study it and answer the questions that follow.



a) Identify the implement **(1mk)**

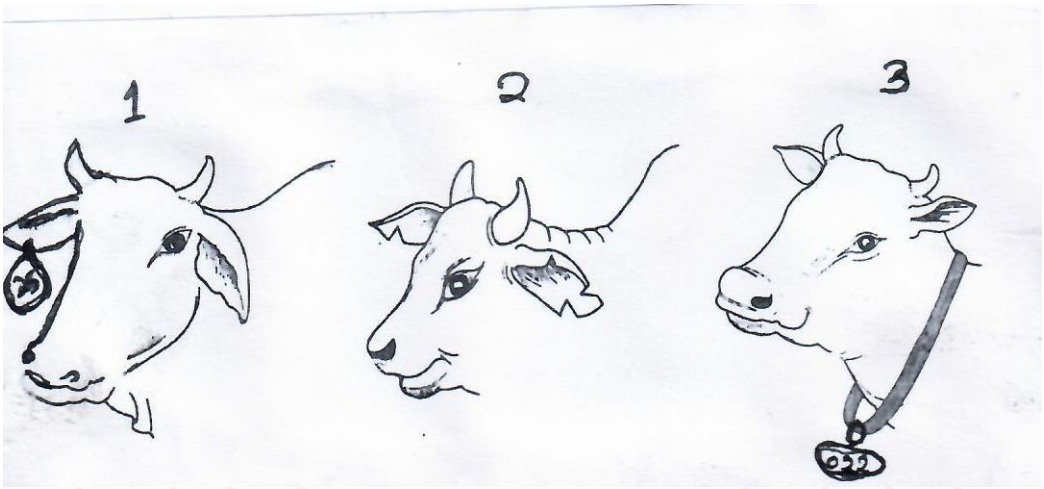
b) State:

(i) The role of the part labelled Y **(1mk)**

(ii) **Three** uses of the implement on the farm **(3mks)**

c) List **two** maintenance practices carried out on the implement **(2mks)**

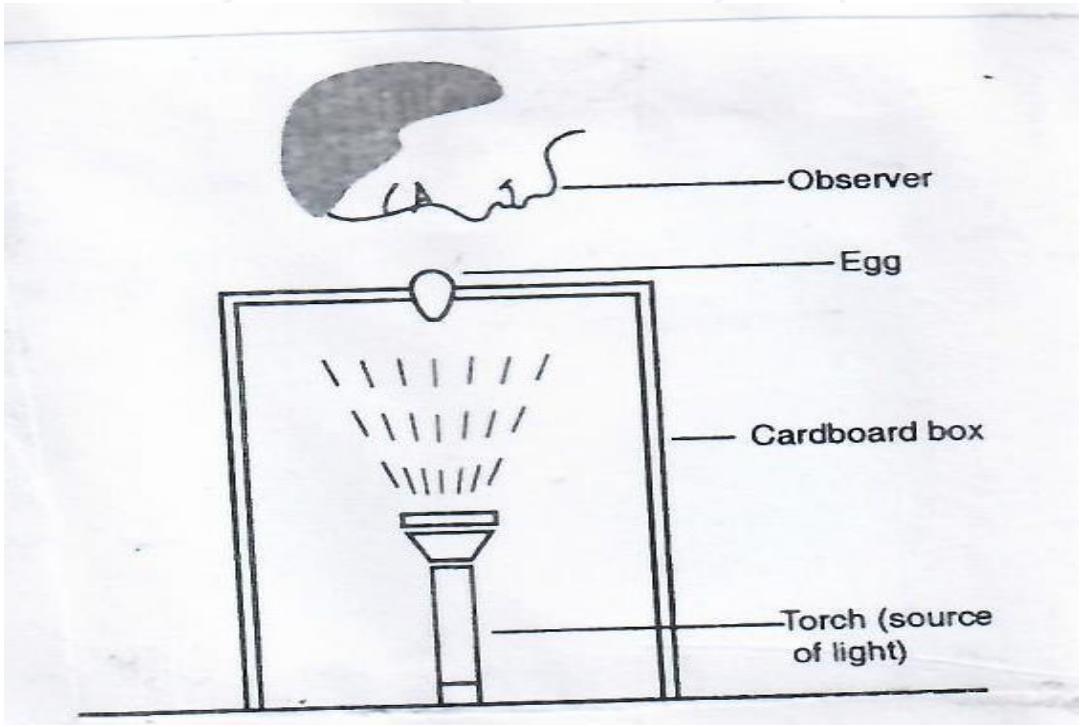
25. The diagram below represents methods of identifications in livestock. Use them to answer questions that follow.



a) Name the **three** methods shown above **(1½mks)**

b) State **three** importance of identification method shown above **(1½mks)**

26. The diagram below illustrates a common practice in poultry production



a) Identify the practice **(1mk)**

b) Give abnormalities of eggs that can be observed using the above illustrated practice **(4mks)**

SECTION C(40MKS)

(Answer any two questions from this section)

27. a) Discuss causes and control of cannibalism in poultry. **(10mks)**

b) Highlight various measures that famers undertake to control tapeworms **(5mks)**

c) Explain the importance of streaming up in dairy cattle **(5mks)**

28. a) Describe the precautions undertaken while handling farm tools and equipment (**10mks)**

b) Discuss contagious abortion disease under the following sub headings:

(i) Animals attacked **(2mks)**

(ii) Casual organism **(2mks)**

(iii) Symptoms **(2mks)**

(iv) Control measures **(4mks)**

29a) Discuss the structural and functional differences between petrol and diesel engines **(10mks)**

b) Describe general characteristics of indigenous cattle breeds **(5mks)**

c) Outline five general methods of disease control in livestock **(5mks)**

KCSE 2024 FINAL PREDICTION

EXPECTED EXAM 4

443/1 Agriculture (Theory) Paper 1

Time: 2 Hours

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

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*

For examiner's use only

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATE SCORE
A	1 -15	30	
B	16-19	20	
C		20	
		20	
Total score		90	

SECTION A 30 MARKS

Answer all question

1. Name **two** physical agents of weathering **(1 marks)**

2. Outline **three** methods of breaking seed dormancy **(1 ½ marks)**

3. List **two** signs shown by crops when they are attacked by nematodes **(1 marks)**

4. Distinguish between soil structure and soil texture **(2 marks)**

5. State any **three** examples of working capital **(1 ½ marks)**

6. What is Land reform: **(1 mark)**

(b) State any **four** methods of land reform **(2 marks)**

7. Mention **four** ways in which losses may be incurred during hay making. **(2marks)**

8. Give **two** precautions taken to ensure good crop establishment during planting. **(1mark)**

9.(a) Define inventory records. **(1mark)**

b). State **four** pieces of information that is contained in health records. **(2marks)**

10)a. List **four** problems associated with nomadic pastoralism in Kenya. **(2marks)**

(b) Name **four** factors of production in agriculture. **(2marks)**

11. List **two** farming practices that can be carried out to increase the amount of light harnessed by crops. **(2marks)**

12. State **four** reasons why land is prepared before planting **(2marks)**

13. Give **one** reason in each case why the following tertiary operations are important**. (3marks)**

i) Ridging

ii) Rolling

iii) Leveling

14. Distinguish the following terms as used in pasture management. **(2marks)**

a. Intensity of defoliation

b. Frequency of defoliation

15. What does the term ‘close season’ in crop production mean? **(1mark)**

SECTION B

Answer All Question

16. Use the following crops to answer the questions that follow.



D



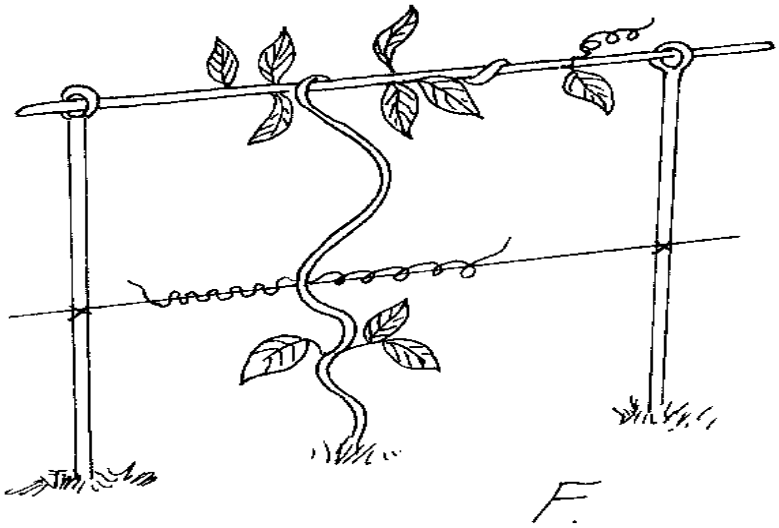
E

a) Name the crops labelled D and E above. **(2mark)**

b) Why is crop D rarely destroyed by pests in the stores? **(1mark)**

c) Name any **two** diseases that affect crop E. **(2marks)**

17. The diagram F, below illustrates a method of training in crops.



F.

i) Identify the method shown in F above. **(1mark)**

ii) Name **two** other methods used in training in crop production. **(1mark)**

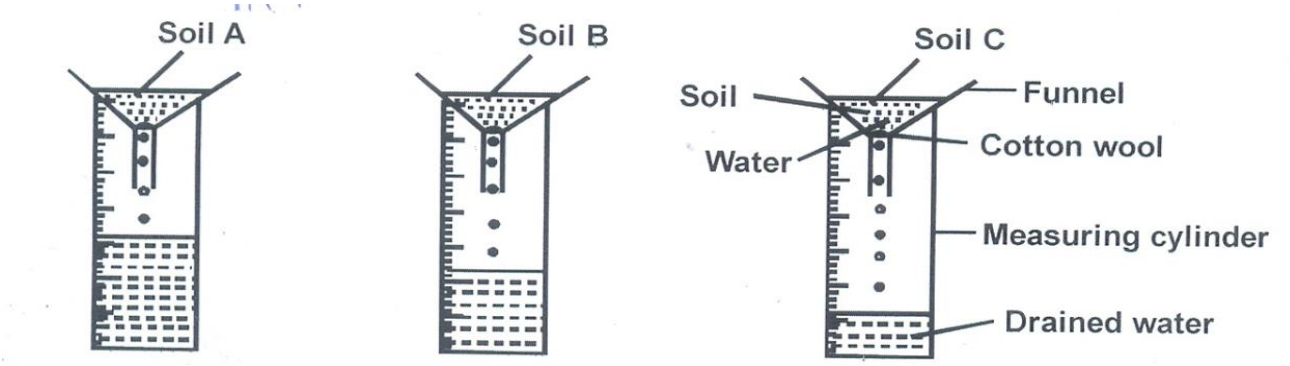
iii) State **two** advantages of training in crop production. **(2mark)**

iv) List **two** crops that require training. **(1mark)**

18.a) Describe the procedure which should be followed in spraying a crop of tomatoes using a fungicide in powder form, water and knapsack sprayer. **(3 marks)**

(b) State **two** safety measures that should be taken while spraying the crop with fungicide **(2 mk**

19. The diagram below illustrate an experiment on soil



a) State the aim of the experiment **(1 mark)**

b) If the volume of water illustrated in the measuring cylinder was observed after one hour.

Identify the soil sample A and B

Soil **A**……..**(1 mark)**

Soil **B**…… **(1 mark)**

c) State **two** ways in which the soil structure of the sample labelled c above can be improved.

(2 marks)

SECTION C 40 MARKS

Answer Only Two Questions

20. a) Giving one example in each case, identify **three** classes of crop diseases. **(6marks)**

b) Describe the physical measures of disease control in crops. **(10marks)**

c) **Identify** the factors affecting the efficiency of pesticides **(4marks)**

21).Describe the production of tomatoes (Lycoperiscon esculentum) under the following subheadings.

(a) Ecological requirements **(4marks)**

(b) Nursery establishment **(4marks)**

(c) Transplanting **(4marks)**

(d) Seed bed preparation **(4marks)**

(e) Field management practices **(4marks)**

22. a) State and explain **five** agricultural services available to farmers. **(10marks)**

b) Explain the ways in which labour efficiency can be increased in the farm **(5marks)**

c) State any **five** measures which are taken to minimize water pollution In the farm. **(5marks)**

KCSE 2024 FINAL PREDICTION

EXPECTED EXAM 4

443/2 Agriculture (Theory) Paper 2

Time: 2 Hours

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES.

a) *Write your name & Index Number in the spaces provided.*

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 I Section **A** and **B***

e) *Answer two question from Section **C.***

FOR EXAMINERS USE ONLY

SECTION	MAXIMUM SCORE	CANDIDATE SCORE
A	30	
B	20	
C	40	

SECTION A (30MKS)

Answer ALL the Questions in this section

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

SECTION B (20MARKS)

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



A



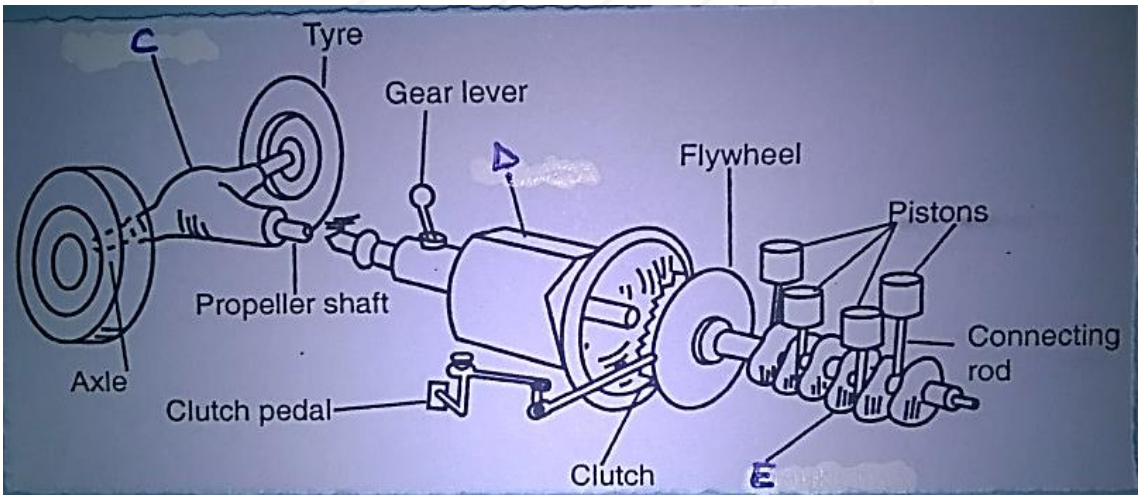
B

a) Identify the parasites labelled A and B. **(1mk)**

b) Name the livestock affected by the parasite labelled A. **(1mk)**

c) State **two** harmful effects of parasites A and B in livestock production. **(2mks)**

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



a) Name the parts labelled C, D and E. **(3mks)**

b) State the functions of parts C, D and E. **(3mks)**

22. a) Outline the procedure of castrating a male piglet**.** **(4mks)**

b) At what age should the male piglet be castrated? **(1mk)**

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



F



G



H



I

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

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

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

SECTION C (40MARKS)

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

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

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

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

ii. Pre-disposing factors. **(3mks)**

iii. Symptoms. **(4mks)**

iv. Control measures. **(2mks)**

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

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

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

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

KCSE 2024 FINAL PREDICTION

EXPECTED EXAM 5

443/1 **Agriculture** Paper 1

Time: 2 Hours

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

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

FOR EXAMINER'S USE ONLY

Section	Question	Maximum score	Candidate's score
A	1–15	30	
B	16	20	
	17		
	18		
	19		
C	20-22	40	
	TOTAL	90	

SECTION A (30 marks)

1. State **four** reasons why agriculture is important to Kenya's economy. **(2 marks)**

2. State **four** ways in which mulching conserves water. **(2 marks)**

3. State **four** ways in which trees improve soil productivity. **(2 marks)**

4. What is meant by the term integrated pest management? **(2 marks)**

5. State **four** factors that influence soil formation. **(2 marks)**

6. State **four** causes of crop diseases. **(2 marks)**

7. State **four** ways in which a land title deed is important to a farmer. **(2 marks)**

8. Give **four** agents of soil erosion. **(2 marks)**

9. Give **four** reasons for intercropping in crop production **(2 marks)**

10. State **four** characteristics of extensive farming system. **(2 marks)**

11. Outline **four** minimum tillage practices **(2 marks)**

12. Give **four** reasons why burning of land is discouraged. **(2 marks)**

13. State **four** functions of Young Farmers Club **(2 marks)**

14. Distinguish between a perfect and an imperfect market. **(1 mark)**

15. State the meaning of the following terms as used in crop production.

(a) Crop rotation. **(1 mark)**

(b) Pruning. **(1 mark)**

(c) Rogueing. **(1 mark)**

SECTION B (20 marks)

16. A farmer has a piece of land on which he can grow maize, cabbages and beans. The expected yields and selling prices of the three crops are shown below.

Crop	Yield (kg)	Selling prices (ksh/kg)
Maize	4000	40
Cabbages	2800	60
Beans	3000	80

If the cost of producing any of the three crops is the same.

(a) Which crop should the farmer grow? Show your working. **(2 marks)**

(b) **(i)** State the farmer's opportunity cost. **(1 mark)**

(ii) Give a reason for your answer in (b) (i) above. **(1 mark)**

(c) Give a reason why farmers always have to make a choice on the enterprise to implement on the farm. **(1 mark)**

17. **A** famer is advised to apply 60kg N, 20kg P2O5 and 30kg K2O per hectare. Calculate the quantity of urea (46%N), single super phosphate (20%P2O5) and muriate of potash (50% K2O) the farmer should apply on his 10 hectares land. **(5 marks)**

18. Below is a diagram showing a crop disease.



(a) Identify the crop disease. **(1 mark)**

(b) State **three** control measures for the crop disease. **(3 marks)**

(c) Name the category in which the crop disease is classified. **(1 mark)**

19. The diagram below illustrates a nursery practice.



Identify the practice. **(1 mark)**

Describe the procedure followed in carrying out the practice illustrated. **(2 marks)**

State **two** advantages of the practice illustrated above in crop production. **(2 marks)**

SECTION C (40 marks)

20 (a) Describe **seven** harmful effects of crop pests. **(7 marks)**

Describe **eight** safety measures a farmer should observe when using herbicides to control weeds. **(8 marks)**

Describe the harvesting of coffee. **(5 marks)**

21(a) Explain **five** factors that can increase the demand for tea on a market. **(10 marks)**

(b) State **four** ways of improving labour productivity on the farm **(4 marks)**

(c) The following information was obtained from Upendo Farm inventory on 1st January 2013.

ITEM	VALUE(Ksh)	
Layers		80,000
Beef cattle		240,000
Beans in store		40,000
Cash at hand		15,000
Land		550,000
Machinery		250,000
Buildings		310,000
Calves		75,000

On the same day the farm recorded the following;

ITEM	VALUE(Ksh)	
Wages payable		5,000
Interest payable		8,000
Bank loan		725,000
Milk sales on credit		12,000
Chicken sales on credit		6,000
Cash in bank		52,000
Purchase of fertilizer on credit		26,000
Taxes payable		3,000

Using the information provided prepare a balance sheet for Upendo Farm. **(6 marks)**

22. (a) Describe the field management practices for tomatoes. **(10 marks)**

(b) Explain ways in which the Kenyan Government can improve maize production to ensure food security in the country. **(10 marks)**

KCSE 2024 FINAL PREDICTION

EXPECTED EXAM 5

443/2 **Agriculture** Paper 2

Time: 2 Hours

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

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

FOR EXAMINER'S USE ONLY

Section	Question	Maximum score	Candidate's score
A	1–16	30	
B	17	20	
	18		
	19		
	20		
C	21-23	40	
	TOTAL	90	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

SECTION A (30 MARKS)

Answer all the questions in this section in the spaces provided

1. Name **four** beef breeds of cattle. **(2 marks)**

2. State **four** observations on the behavior of chicks which would indicate that the temperature in the brooder is too high. **(2 marks)**

3. Give **four** practices carried out on fish before preservation. **(2 marks)**

4. Outline **four** reasons for steaming up a gestating cow. **(2 marks)**

5. List **four** factors considered when selecting eggs for marketing. **(2 marks)**

6. Give **four** disorders associated with calcium deficiency in livestock **(2marks)**

7. State **four** advantages of carrying out raddling in sheep management. **(2 marks)**

8. Give a reason why ruminant animals are able to digest grass. **(1 mark)**

9. Give the difference in meaning of the following terms as used in livestock.

(a)Quarantine and Isolation **(1 mark)**

(b)Zoonotic and notifiable diseases **(1 mark)**

10. List **four** effects of ticks on livestock bodies. **(2marks)**

11. State **four** factors that influence selection of construction materials. **(2 marks)**

12. Name **three** farm implements operated by the tractor's P.T.O shaft. **(1½marks)**

13. State **four** reasons for debeaking in poultry production. **(2 marks)**

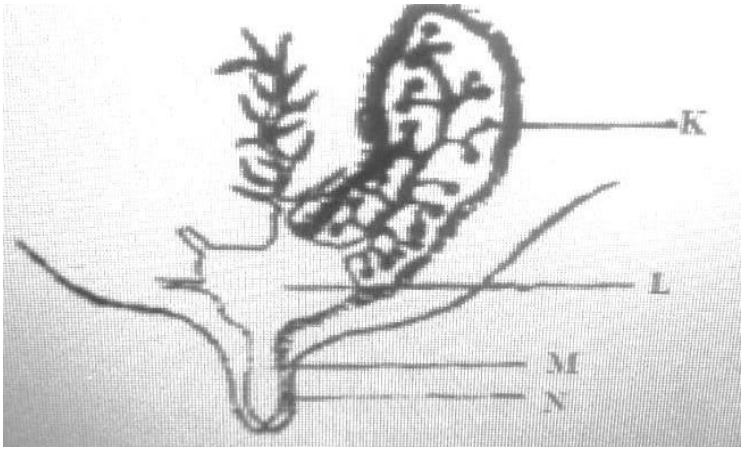
14. Name **three** breeding diseases controlled through the use of artificial insemination. **(1½mks)**

15. Give **four** characteristics of a good vaccine. **(2 marks)**

16. State **four** advantages of Kenya top bar hive in bee keeping. **(2 marks)**

SECTION B (20 MARKS)

17. The diagram below shows the udder of a cow. Use it to answer the questions that follow.



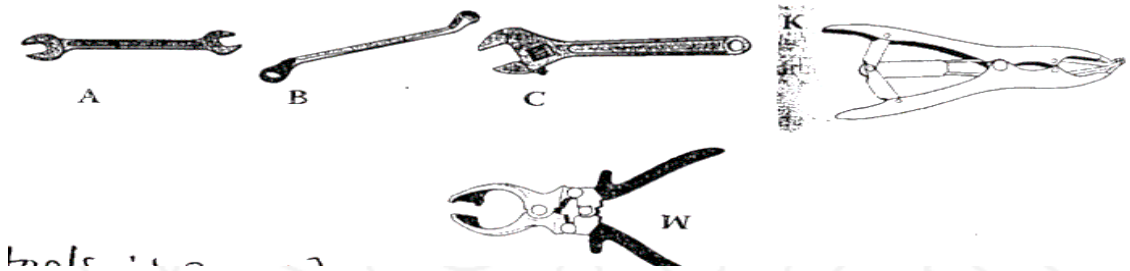
a) Name parts L and M. **(2 marks)**

b) State the hormone responsible for milk let down. **(1 mark)**

c) Define dry cow therapy. **(1 mark)**

d) Why milking should be done quickly and evenly. **(1 mark)**

18. The diagrams below show some farm tools. Study them and answer the questions that follow.



Name the tools. **(2 marks)**

A-

B-

C-

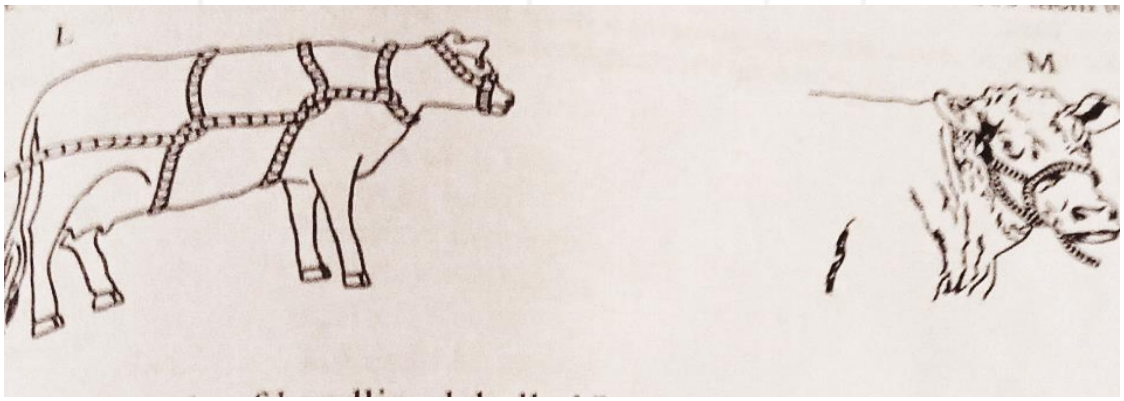
W-

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

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

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

19. The diagram below shows two methods of handling livestock in the farm. Study them and answer the questions that follow.



a) Identify the methods of handling livestock labelled L and M. **(1 mark)**

b) Give **two** occasions when it may be necessary to carry out the practice labelled L above.

(2 mks)

c) Give **two** animal conditions under which method L above cannot be used. **(2 marks)**

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



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

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

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

SECTION C (40 MARKS)

Answer any two questions in this section

21.a) Explain **five** factors that affect milk composition in dairy farming. **(5 marks)**

b) State five signs of parturition in cattle **(5marks)**

c) State five maintenance practices of a fish pond **(5marks)**

d) Explain five factors considered when selecting livestock for breeding **(5marks)**

22.a)Describe the management of a sow during parturition. **(10 marks)**

b) Describe the lifecycle of a three host tick. **(7 marks)**

c) Outline **three** effects of endo-parasites to the host animals **(3marks)**

23. a) Describe a blue tick (*Boophilus decolaratus*) under the following sub-headings.

i) Diseases transmitted. **(2marks)**

ii) Preferred site of attachment. **(3marks)**

iii) Non-chemical control measures. **(5marks)**

b) Discuss mastitis disease under the following sub-headings:

i) Predisposing factors. **(5marks)**

ii) Control and treatment. **(5marks**

KCSE 2024 FINAL PREDICTION

EXPECTED EXAM 6

443/1

AGRICULTURE

PAPER 1

TIME: 2 HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES

(a) Write your name and index number in the spaces provided above.

(c) This paper consist 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	MAXIMUM SCORE	CANDIDATES' SCORE
A		
B		
C		

For Marking Schemes Contact 0746 222 000 / 0742 999 000

SECTION A.(30 marks)

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

1. State four factors influencing the choice of farming methods a farmer may use. **(2 marks)**

2. State four advantages of drip irrigation. **(2 marks)**

3. Differentiate between hybrid and composite as used in crop production. **(2 marks)**

4. Highlight two ways of hardening off tomato seedlings before transplanting. **(1 mark)**

5. Give a reason as to why a farmer is supposed to observe the following precautions in the farm. **(2 marks)**

(a) Always store farm yard manure under a shade.

(b) Wear gloves while applying nitrogenous fertilizers.

6. (a) Distinguish between stocking rate and carrying capacity as used in forage production. **(2 marks)**

(b) Give two reasons for conserving forage. **(1 mark)**

7. Outline four ways in which grass help to conserve soil. **(2 marks)**

8. Give two signs of blight in a field of tomatoes. **(1 mark)**

9. State two types of labour records **(1 mark)**

10. Give two reasons for growing crops under optimum temperature conditions. **(1 mark)**

11. Define the law of profit maximization. **(1 mark)**

12. Outline four ways a farmer can improve labour productivity in the farm. **(2 marks)**

13. State two reasons why farmer should be encouraged to practice organic farming. **(1 mark)**

14. State two ways in which crop rotation controls weeds. **(1 mark)**

15. Give two reasons for carrying out each of the following operations in land preparation:

a) rolling; **(1mark)**

b) leveling. **(1mark)**

16. Why is it advisable to apply straight nitrogenous fertilizer to a crop of maize at a height of 30-45 cm. **(2 marks)**

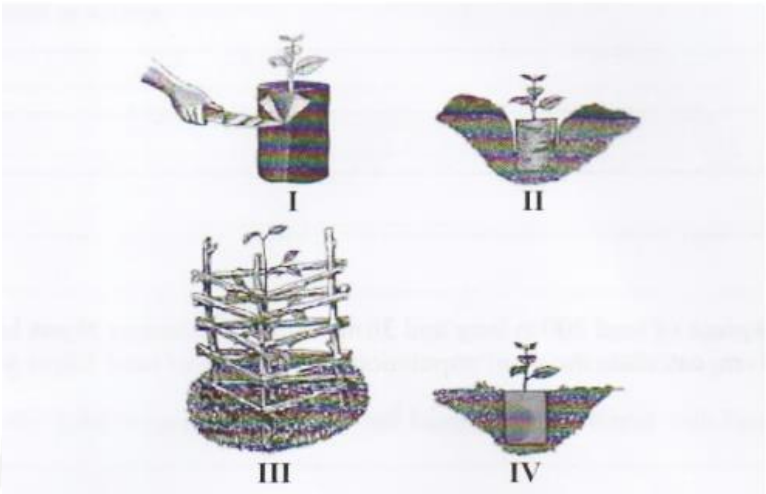
17. Give four reasons why the use of herbicides is discouraged during land clearing. **(2 marks)**

18. Give four conditions that have lead to fragmentations and sub-division of agricultural land in Kenya. **(2 marks)**

SECTION B. (20 marks)

Answer ALL the questions in this section.

19. The diagram below shows a practice in agroforestry.



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

(b) State the importance of the activity labelled:

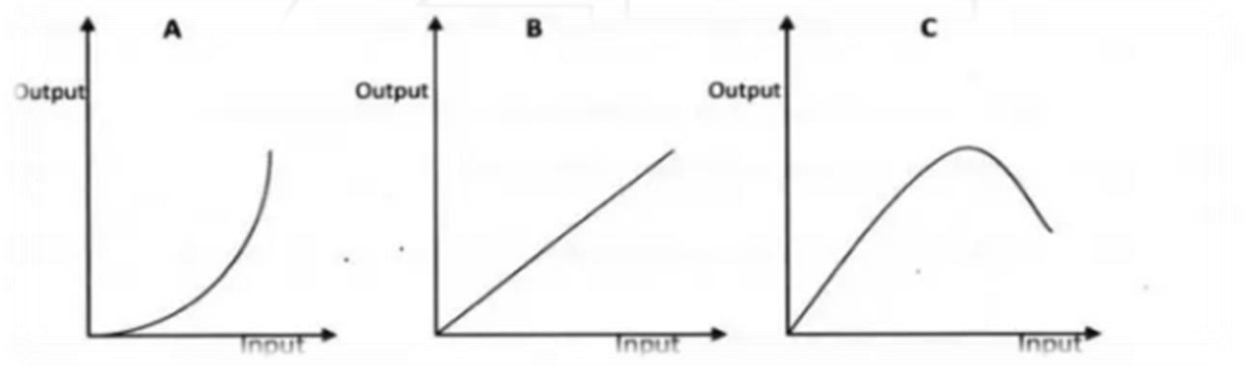
I .....(1 mark)

III.....(1 mark)

IV .....(1 mark)

(a) State the main precaution Observed when covering the seedling as illustrated in III. **(l mark)**

20. The following illustration shows different production function curves in agricultural economics. Study them and answer the questions that follows.



(a) Identify the production function curves labeled A and B.

A…… (1 mark)

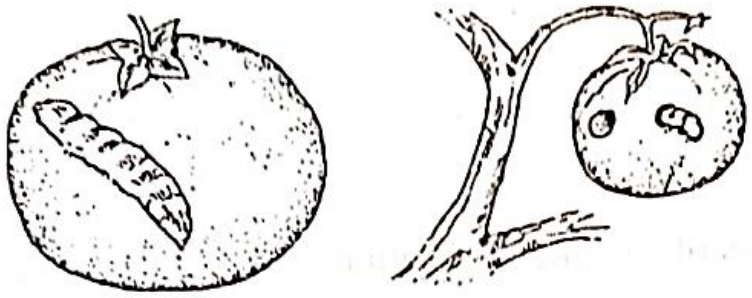
B……(1 mark)

(b) What does the law derived from the production function C states. **(1 mark)**

(c) Which one of the three production curves is rare in Agriculture. **(1 mark)**

(d) Give a reason for your answer in question C above. **(1 mark)**

21. The diagram below illustrate a tomato fruit infested by a field pest

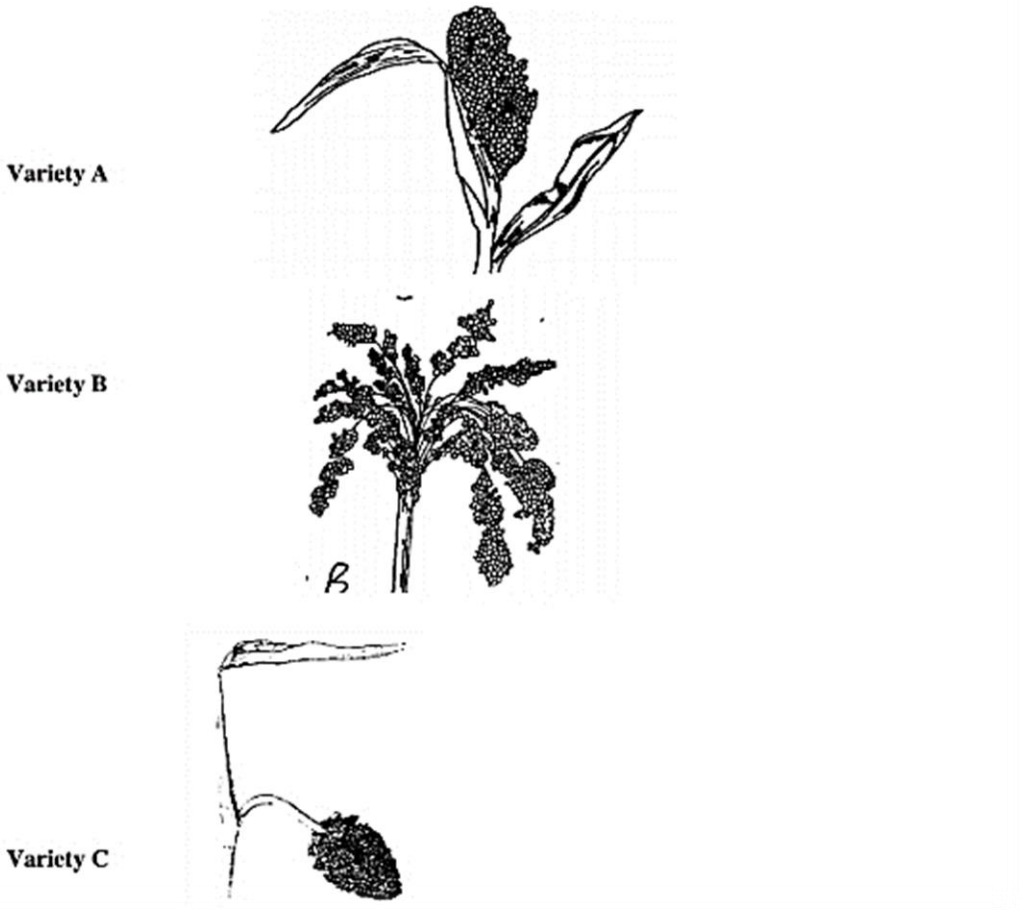


(a) Identify the pest. **(1 mark)**

(b) State two ways in which the pest is economically important. **(2 marks)**

(c) State two cultural ways of controlling the pest. **(2 marks)**

22. Illustration below shows sorghum varieties A, B and C. Study them and answer the questions that follows.



(a) (i) Identify varieties A, B and C. **(1 ½ marks)**

(ii) Which of the three varieties is less likely to be destroyed by birds? **(1 mark)**

(iii) State three reasons in (a) (ii) above. **(1 ½ marks)**

(b) Give one example of the pest and disease affecting sorghum respectively. **(2 marks)**

SECTION C.(40 marks)

Choose ANY TWO questions in this section.

23. (a) State five functions of young farmers clubs in Kenya. **(5 marks)**

(b) Describe the procedure of preparing green manure. **(5 marks)**

(c) Describe various risks and uncertainties in maize crop farming. **(10 marks)**

24. (a) Outline the information contain in a purchase order. **(5 marks)**

(b) Explain ways in which:

(i) Government policy improves agricultural production. **(5 marks)**

(ii) Low level of education and technology influences agriculture **(4 marks)**

(b) Describe six cultural methods of controlling crop diseases. **(6 marks)**

25. (a) (i) Describe harvesting of harvesting coffee **(5 marks).**

(ii) Describe the precautions when harvesting cotton **(5 marks)**

(b) Describe the safety measures observed when handling herbicides. **(10 marks)**

KCSE 2024 FINAL PREDICTION

EXPECTED EXAM 6

443/2

AGRICULTURE

PAPER 2

TIME: 2 HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS

- *Write down your name and admission number in the spaces provided above*
- *Sign and write the date of examination in the spaces provided above*
- *This paper consists of three sections;* ***A, B*** *and* ***C***
- *Answer ALL the questions in section* ***A*** *and* ***B***
- *Answer any two questions in section* ***C***
- All answers should be written in the spaces provided
- Candidates should check the question paper and ascertain that all the pages are printed as indicated and that no questions are missing.

FOR EXAMINER'S USE ONLY

Section	Question	Maximum score	Candidate's score
A	1-18	30	
B	19--22	20	
C	23	20	
	24	20	
	25	20	
TOTAL		**90**	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

SECTION A (30 MARKS)

Answer ALL the questions

1. Name the complementary tool of each of the tools named below **(1mk)**

i) Hand drill

ii) Bull ring-……..

2. State **four** factors that influence the respiration rate in livestock. **(2mks)**

3.. List **three** body conformation features of Aberdeen Angus. **(2mks)**

4. Give **four** reasons why honey harvesting at night should be discouraged. **(2mks)**

5. List **three** problems associated with air cooled tractor engine **($1^{1/2}$mks)**

6. Give **three** reasons why calves should be housed singly **($1^{1/2}$mks)**

7. Give reasons for the following **($1^{1/2}$mks)**

i) Why feeders in poultry rearing have a rotating bar?

ii) Why brooders are circular in shape?

ii) Why the waterers have a pointed top?

8. State **two** causes of ruminal tympany? **(1mk)**

9. State **six** factors considered when selecting female rabbits for breeding **(3mks)**

10. State **four** ways of controlling tsetse flies. **(2mks)**

11. Give **four** ways of stimulating milk let-down in a dairy cow. **(2mks)**

12. State **four** disadvantages of natural mating as a method of breeding in dairy cattle management. **(2mks)**

13. State **two** functions of a queen in a bee colony **(1mk)**

14. State **four** factors that would determine the amount of concentrate fed to dairy cattle. **(2mks)**

15. Give **four** causes of scouring in calves. **(2mks)**

16. Give **four** ways in which disease causing organisms can gain access into a newly born lamb **(2mks)**

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

18. List **two** equipment used in handling cattle during an agricultural exhibition. **(1mk)**

SECTION B (20marks)

Answer all questions in this section

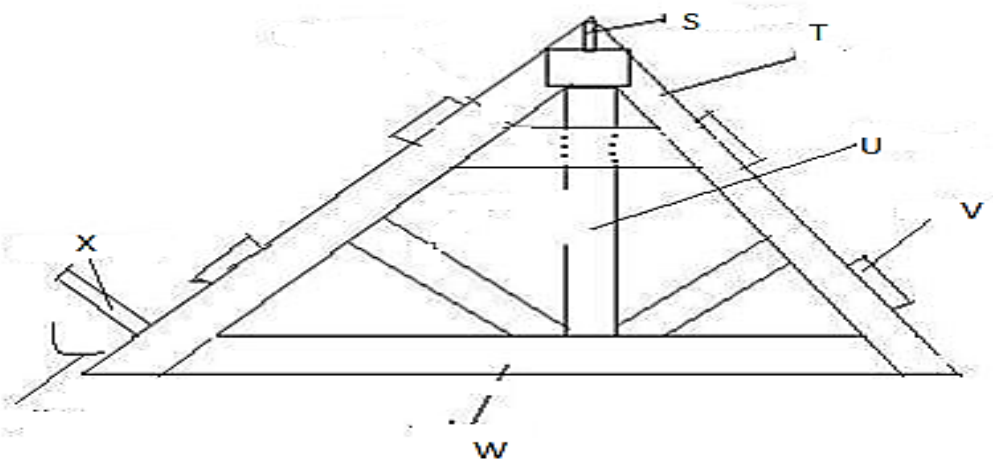
19 .The diagrams is an illustration of a chick suffering from malnutrition



a) State the causes of the above identified deficiency. **(1mk)**

b) A part from the symptom shown above , give four other symptoms shown by the bird **(4mks)**

20. The diagram is an illustration showing parts of a roof. Study it and answer the questions that follow.

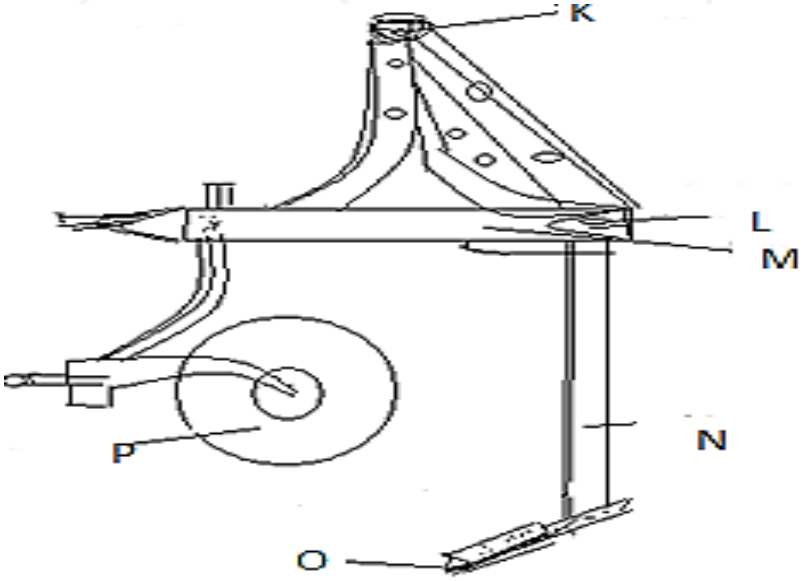


a) Name parts labeled S, U, V, W

b) Give the functions of part labeled

X……

21. Study the diagram below and answer the question that follows



a) Identify the implement shown above **(1mk)**

b) Give the functions of parts labeled **(2mks)**

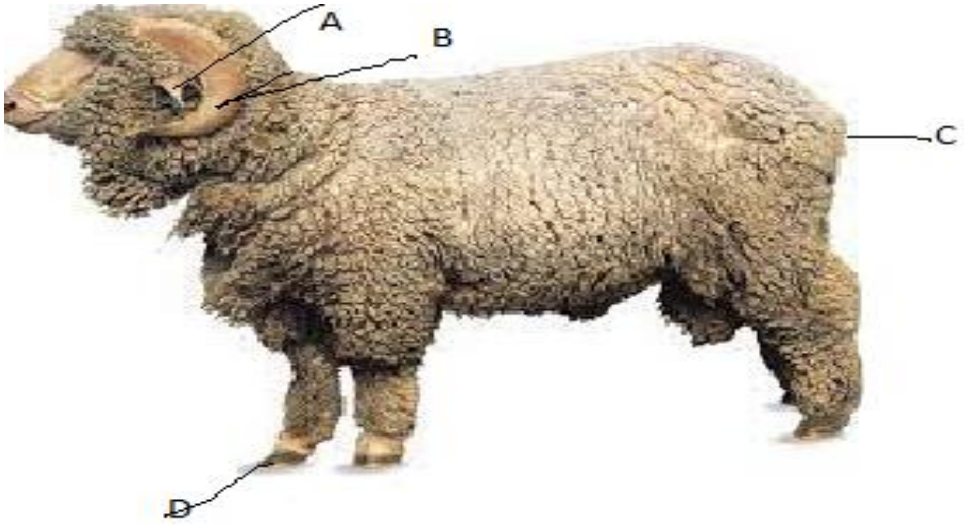
O……

P……

c) Name the method of attachment of the implement you have mentioned above. **(1mk)**

d) State the maintenance practice carried out on part labeled O **(1mk)**

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



a) Identify the sheep breed illustrated **(1mk)**

b) Identify the practice that can be carried out at point labeled **C** and D **(2mks)**

c) Name the practice that should be carried at point **B** at the early stages of development. **(1mk)**

d) Identify the practice that can be carried out at point labeled **C** and D **(2mks)**

SECTION C (40MKS)

Answer any two questions from this section in the spaces provided

23 a) Describe how each stroke in a four-stroke cycle petrol engine operates. **(10mks)**

b) State **six** signs that are likely to be observed when a cow is on heat **(6mks)**

c) State **four** advantages of animal as a source of farm power **(4mks)**

24 a) Discuss Foot and **Mouth** disease under the following headings:

i) Casual organism. **(1mark)**

ii) Animals attacked. **(2marks)**

iii) Symptoms of attack. **(6 marks)**

Iv) Control measures **(4mks)**

b) Describe the **physiological** signs of ill health in an animal **(7mks)**

25 a) Outline the procedure followed when hand spraying cattle to ensure control of ticks. **(10mks)**

***b*) Describe** digestion of grass in small intestines of ruminant animals **(5mks)**

c) Describe **five** factors that affect milk composition in dairy farming. **(5mks)**

KCSE 2024 FINAL PREDICTION

EXPECTED EXAM 7

443/1

AGRICULTURE

PAPER 1

TIME: 2 HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES

i. *This paper consists of THREE sections **A**, **B** and **C***

ii. *Answer **ALL** questions in **sections A** and **B** and **Any TWO** questions in **section C***

iii. *Answer to **ALL** questions **MUST** be written in the spaces provided.*

FOR EXAMINERS' USE ONLY

Section	Questions	Maximum Score	Candidate's Score
A	1 - 17	30	
B	18 - 21	20	
C	22 - 24	40	
TOTAL SCORE		**90**	

SECTION A (30marks)

Answer ALL questions in this section in the spaces provided

1) Give four aspects of rainfall that affect agricultural production. **(2mks)**

2) State four factors considered when choosing water pipes for use in the farm. **(2mks)**

3) List down four types of water erosion. **(2mks)**

4) Give three classes of weeds on the basis of growth cycle. **(1½mks)**

5) Define the term pest. **(1mk)**

6) State four reasons why burning of bushes is discouraged as a method of land clearing. **(2mks)**

7) Outline four factors considered when grading tomatoes. **(2mks)**

8) State four problems associated with marketing agricultural produce **(2mks)**

9) Give three maintenance practices carried out on water tanks. **(1 ½ mks)**

10) Give four characteristics of agroforestry trees **(2mks)**

11. Define the following terms. **(2 mks)**

(i) Nursery bed

(ii) Seed bed

(iii) Pricking out

(iv) Hardening off

12. List four financial documents used in the **farm** **(2mks)**

13. List down four factors of production. **(2mks)**

14. Name the parts harvested for each of the following crops. **(1 ½ mks)**

(a) Onions

(b) Carrots

(c) Coffee

15. Name four main methods of controlling pests in the farm. **(2mks)**

16. Mention three ways of applying water to crops **(1 ½ mks)**

17. Differentiate between pomoculture and olericulture **(1mk)**

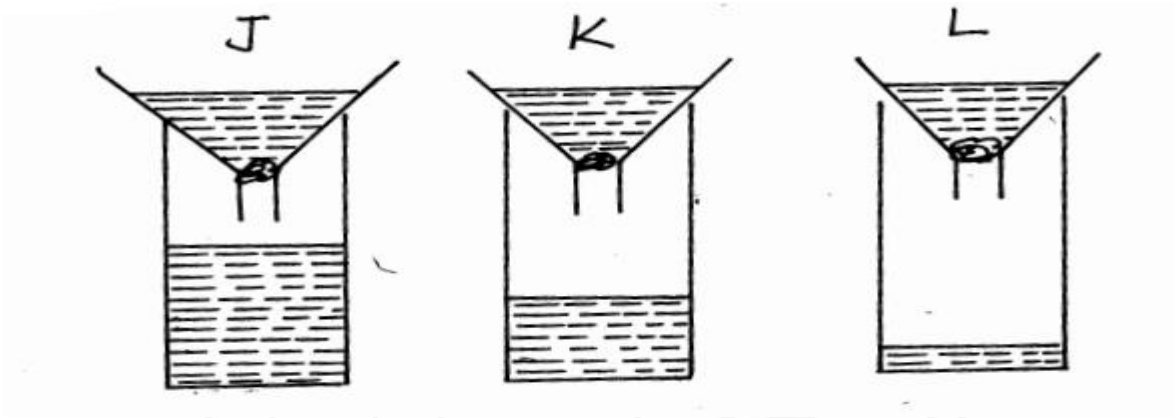
SECTION B (20 MKS) Answer ALL questions in this section

18.a) A farmer in Kabondo was advised to apply 80 kg of nitrogen to his maize plantation during top dressing. The fertilizer available was calcium ammonium nitrate (20% N) .Calculate the amount of this fertilizer in kilograms the farmer should purchase **(2mks)**

b. At what stage should the farmer top dress his maize crop **(1mk)**

c. State three methods of fertilizer application **(3mks)**

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



a.) If the level of water drained into the test tubes were observed after two hours, name the property of soil being investigated **(1mk)**

b.) What is the relationship between this property of soil and the size of soil particles **(1mk)**

c.) Which soil sample will be suitable for growing paddy rice ? **(1mk)**

d.) Name the type of soil labeled **(2mks)**

J. ……

L. ……

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

Pit	Pit	Pit	Pit	Pit
A	B	C	D	E

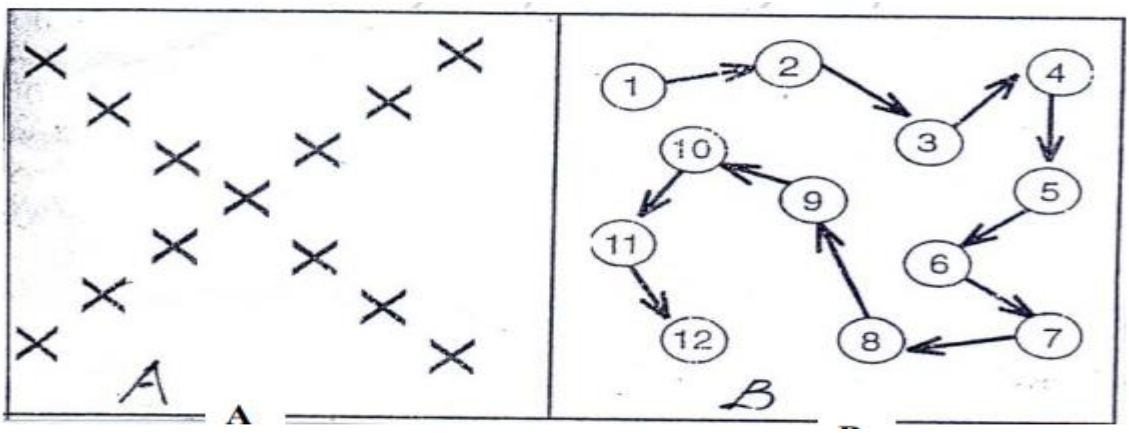
→ Field

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

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

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

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



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

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

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

22. (a) Describe seven cultural or biological methods of soil and water conservation**.** **(7 marks)**

(b) Describe the importances of keeping farm records **.** **(7 marks)**

(c) Explain six objectives of the million acre scheme of land settlements. **(6 marks)**

23[a] Describe the growing of dry bean seeds under the following sub headings.

(i) Selection and preparation of planting materials. **(3marks)**

(ii)Planting. **(4marks)**

(iii) Weeding. **(3marks)**

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

24. (a) Explain seven factors that influence seed rate in crop production. **(7mks)**

(b) Outline seven safety precautions observed when using herbicide in the farm. **(7mks)**

(c) Explain briefly any six factors that affect the quality of hay a farmer may produce in the farm. **(6mks)**

KCSE 2024 FINAL PREDICTION

EXPECTED EXAM 7

443/2

AGRICULTURE

PAPER 2

TIME: 2 HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES

i. *This paper consists of THREE sections **A**, **B** and **C***

ii. *Answer **ALL** questions in **sections A** and **B** and **Any TWO** questions in **section C***

iii. *Answer to **ALL** questions **MUST** be written in the spaces provided.*

FOR EXAMINERS' USE ONLY

Section	Questions	Maximum Score	Candidate's Score
A	1 - 17	30	
B	18 - 21	20	
C	22 - 24	40	
TOTAL SCORE		**90**	

SECTION A (30marks)

Answer ALL questions in this section in the spaces provided

1. Name **a tool** recommended for the following practices in the farm.

(i) Smoothening rough surface of wood. **(½ mark)**

ii) Cutting threads on pipes. **(½ mark)**

iii) Relieving a bloated animal of gases particularly ruminants. **(½ mark)**

2. Study the table below and fill in missing names **(3marks)**

Description	Cattle	Pigs	Poultry
Young from birth /hatching to weaning			Chick
Young female before parturition /laying		Gilt	
Mature male for breeding	Bull		

3. Name **two** livestock diseases controlled through artificial insemination (A.I) **(1mark)**

4. Name **two** dairy goat breeds reared in **Kenya** **(1mark)**

5. Give **four** reason of feeding calves on colostrum. **(2mark)**

6. State **four** effects of tsetse fly (Glossina spp) in livestock . **(2mark)**

7. Why is raddling essential in sheep management. **(1mark)**

8. State **four** factors considered when setting a pigsty in the farm. **(2mark)**

9. Name four sources of power in the farm **(2mks)**

10. State **four** predisposing factors to the occurrence of mastitis in dairy cattle. **(2mark)**

11. Why are the following conditions maintained during artificial incubation of eggs in poultry production?

a. Proper ventilation. **(1mark)**

b. Relative humidity maintained at 60%. **(1mark)**

12. Give **four** reason for keeping a herd of dairy cattle healthy. **(2mark)**

13. Differentiate between the following terms as used in livestock production

a. Close breeding and line breeding. **(1mark)**

b. Crutching and ringing. **(1mark)**

14. State **four** reasons for maintaining farm tools and equipment. **(2marks)**

15. Name **four** ways of restraining cattle during routine management. **(2mark)**

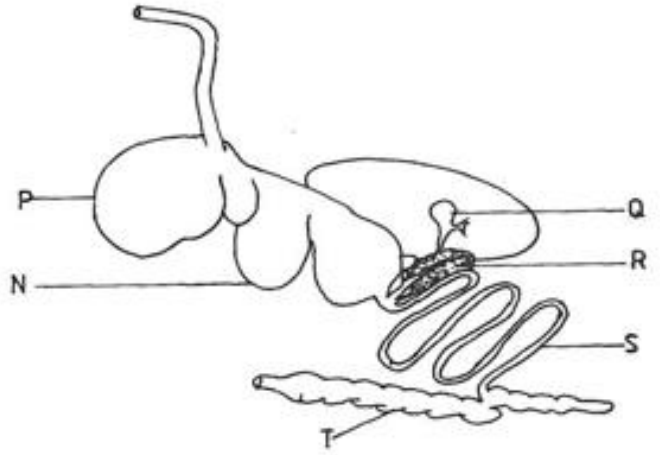
16. State the factors that determine the amount of water an animal drinks. **(2marks)**

17. State **five** causes of stress in a flock of layers. **(2½ marks)**

SECTION B (20MARKS)

Answer all answers to this section in the spaces provided.

18. The diagram below shows part of the digestive system of livestock

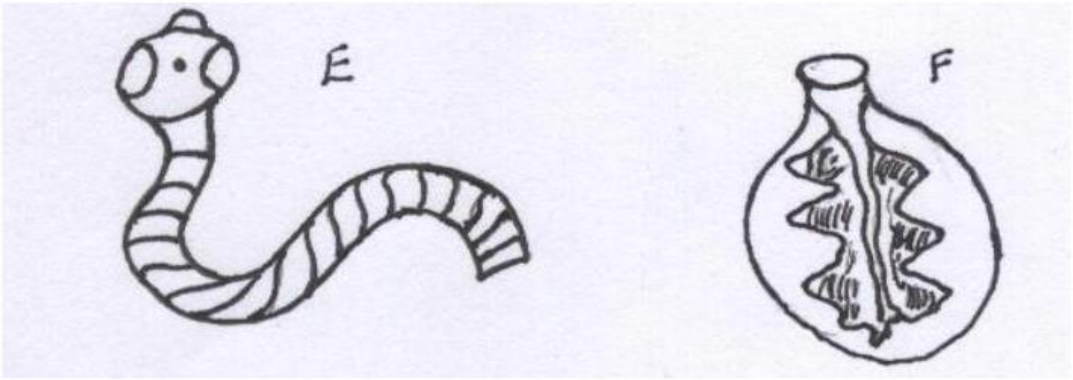


a. Name **one** livestock with the above digestive system **(1mark)**

b. Name parts labelled P and N **(2marks)**

c. State **two** functions of part labelled P **(2marks)**

19. Below shows livestock parasites study them and answer questions that follow



a) Identify parasite labeled E and F**.** **(1mark)**

b) Name the organ in which each parasite is commonly found. **(1mark)**

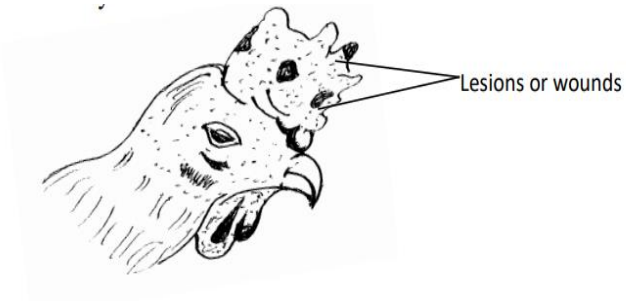
E……

F……

c) Name the intermediate host of the parasite labeled E. **(1mark)**

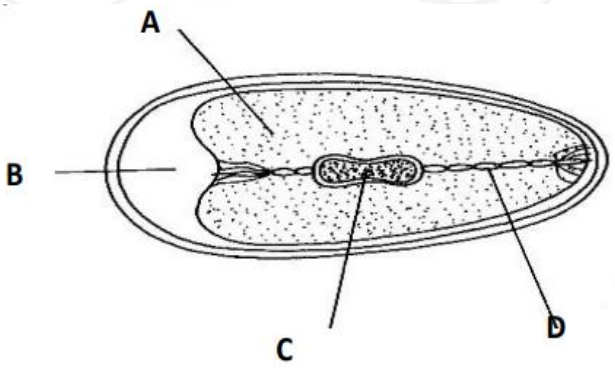
d) State two control measures of the parasite labeled F in livestock production. **(2mark)**

20. The diagram below shows a poultry disease. Study it and answer the question that follow



a) Identify the disease. **(½ mark)**
b) State the causative agent of the above. **(½ mark)**
c) Apart from wounds or lesions or state any other two symptoms of the above disease **(2mks)**
d) State two control measures of the above **(2marks)**

21. The diagram below is an illustration of an egg. Study it carefully and answer the questions that follow.



a) Name the parts labelled A, B, C, and D. **(2 mark)**
b) State two qualities that should be considered when selecting eggs for incubation **(2mark)**
c) What is the function of the part labelled C in a fertilized egg **(1mark)**

SECTION C (40 MARKS)

Answer any two questions from this section in the spaces provided

22. a) Describe the process of milk secretion (**5marks)**
b) outline the advantages of battery cage system of rearing poultry **(8marks)**
c) Describe various management carried out in a fish pond to ensure maximum harvest of fish **(7marks)**

23. a) Describe general methods of controlling livestock diseases **(10marks)**
b) Give eight differences between a petrol and diesel engine **(10marks)**

24. a) Describe the process of egg formation in the reproductive system of a hen **(12marks)**
b) Describe the ideal characteristics of an ideal calf pen **(8marks)**

KCSE 2024 FINAL PREDICTION

EXPECTED EXAM 8

443/1

AGRICULTURE

PAPER 1

TIME: 2 HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

(Kenya Certificate of Secondary Education)

Instructions to students

a) *Write your name and Admission number in the spaces provided at the top of this page*
b) *This paper consists of three sections: A , B and C*
c) *Answer all questions in sections A and B*
d) *Answer any two questions in section C*
e) *All answers should be written in the spaces provided*
f) *Candidate should answer the questions in English*

FOR EXAMINER'S USE ONLY

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATE SCORE
A	1-21	30	
B	22-25	20	
C		20	
		20	
	TOTAL SCORE	**90**	

SECTION A (30 MARKS)

Answer all questions in this section on the spaces provided

1. Suggest **three** factors that determine the choice of a method of farming **(1½ marks)**
2. Outline **three** effects of soil organisms which benefit crop growth **(1½ marks)**
3. State the soil component that determines **(1mark)**

Soil Structure class

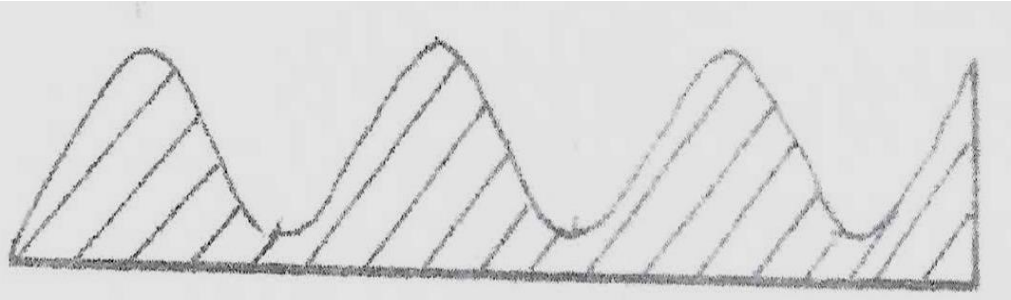
Soil Structure grade

4. State **four** effects of hard pans in the soil **(2 marks)**
5. State **four** factors that determine the number of secondary operations carried out on land in the formation of a seedbed **(2marks)**
6. State **four** factors that are hinder access of enough and clean water to most Kenyans communities **(2marks)**
7. Name **three** causes of water logging in arable land **(1½ marks)**
8. What is the difference between compost manure prepared in drier areas and one prepared in wet areas? **(1 mark)**
9. State **two** methods used to test the PH of the soil **(1 mark)**
10. Differentiate between stem and root tubers **(1 mark)**
11. The average spacing of Arabica coffee is 2.7 m by 2.7 m. Calculate the plant population in one hectare (1Ha) of land (***Show your working***) **(2marks)**
12. State any **two** practices carried out during hardening of seedlings in the production of tomatoes **(1mark)**
13. Name the **three** types of suckers that are supposed to be left in each banana stool after removal or pruning of the extra suckers. **(1½ marks)**
14. State **four** types of information contained in a land title deed **(2 marks)**
15. Explain **two** ways in which grass strips help to conserve the soil **(1 mark)**
16. State **four** disadvantages of tillage as a method of weed control **(2 marks)**
17. Explain the difference between pests economic injury level and integrated pest management **(1mark)**
18. Name the **three** grades of coffee obtained after sorting out the picked berries **(1½ marks)**
19. What is topping in pasture management **(½ mark)**
20. State **three** ways in which labour productivity can be improved **(1½ marks)**
21. State **three** roles of agricultural co-operatives in Kenya **(1½ marks)**

SECTION B (20 Marks)

Answer ALL questions in this section on the spaces provided

22. Below is a diagram of a tertiary land operation. Study it and answer the questions that follow



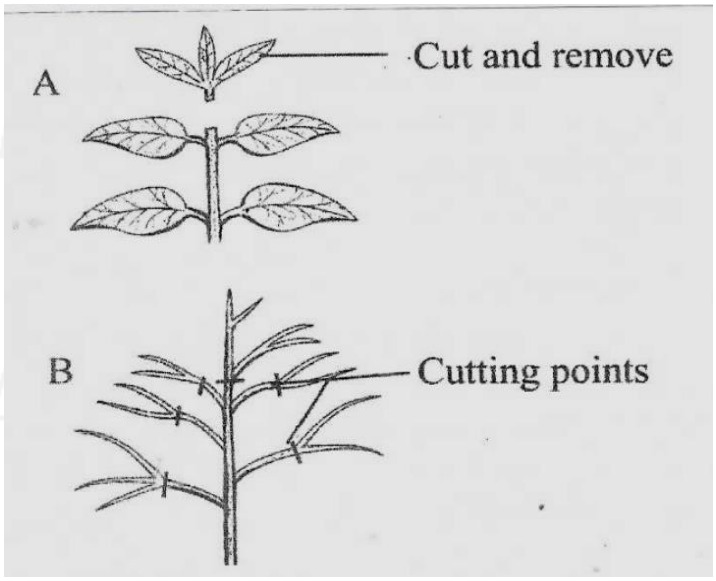
a) Name the tertiary land operation **(1 mark)**

b) Explain the process of performing the tertiary land operation **(1 mark)**

c) Name the tractor implement that can be used to achieve the operation **(1 mark)**

d) State the importance of carrying out the tertiary operation **(2 marks)**

23. Below are diagrams of two methods of pruning. Study them carefully and answer the questions that follow.



i. Identify the pruning methods shown below **(2 marks)**

Method A …….

Method B ……..

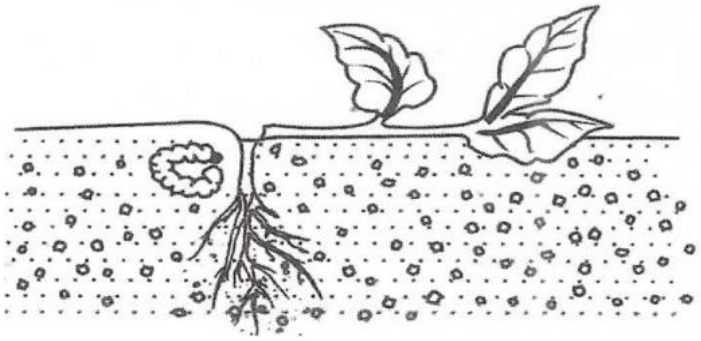
ii. When would it be necessary to carry out the type of pruning illustrated in both cases(**2 marks)**

Method A ……..

Method B ……..

iii. Give **two** advantages of carrying method of pruning in tomatoes **(1mark)**

24. Below is a diagram of a cabbage pest. Study it carefully and answer the questions that follow



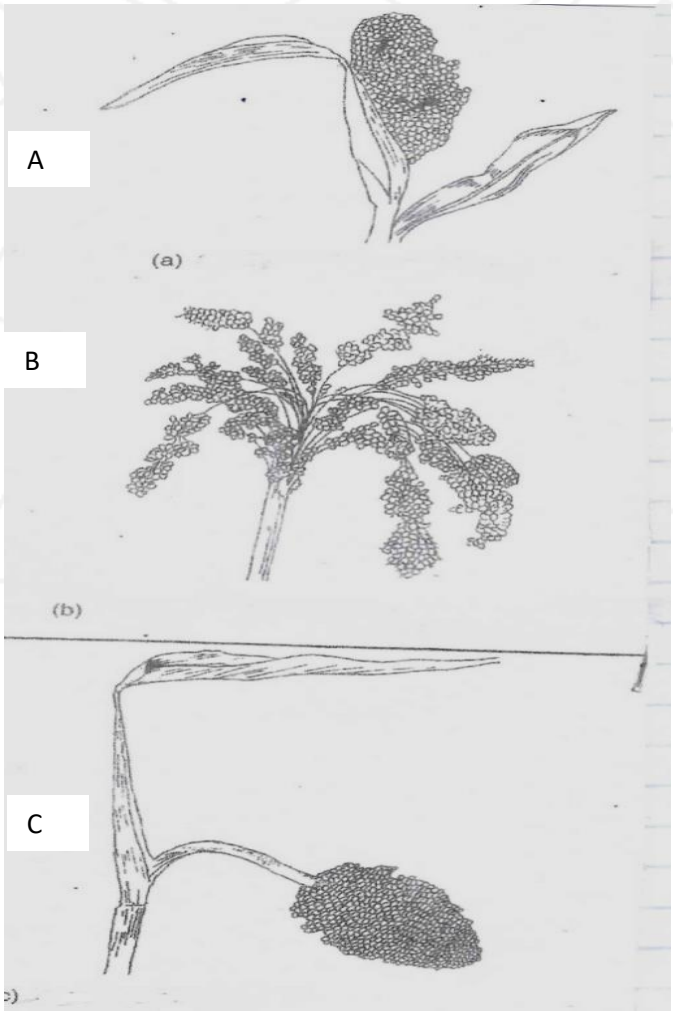
a) Identify the cabbage pest shown above **(1 mark)**

b) In which category of pests does the pest you named in (a) above belong **(1mark)**

c) What kind of mouth part does the pest named in (a) above possess? **(1 mark)**

d) Suggest **two** control measures for the pest named in (a) above **(2 marks)**

25. Below are diagrams of different varieties of sorghum. Study them and answer the questions that follow



i. Identify the different varieties A,B and C **(3 marks)**

ii. State **one** advantage of the variety labeled C over the other varieties **(1 mark)**

iii. Name **two** common pests of sorghum **(1 mark)**

SECTION C (40 Marks)

Answer any TWO questions in this section in the spaces provided after question 28.

26. a) State and explain **four** ways in which biological agents may enhance soil formation **(6 mks)**

b) Discuss **six** reasons on the importance of keeping good and up to date farm accounts in the farm **(6 marks)**

c) Discuss why liming is a recommended practice in crop production **(4 marks)**

d) Explain the roles of irrigation water in rice production **(4 marks)**

27. a) Outline the procedure undertaken in inheriting a registered land upon death of the owner **(8 marks)**

b) State the **three** harvesting practices of maize **(3 marks)**

c) Discuss the processes of large scale chemical treatment of water **(9 marks)**

28. The following information was obtained from Keheo farm. Study the information and prepare a balance sheet for the farm for the year ended 31st JULY/AUG 2019

Payable tax	-	16,000
Interest on loan	-	24,000
Payable debts	-	14,000
Two year bank loan	-	120,000
Wages	-	24,000
Buildings	-	84,000
Receivable debts	-	12,000
Livestock	-	124,000
Feeds in store	-	12,000
Maize in store	-	42,000
Cash at hand	-	22,000
Movers	-	5,500
Cash in bank	-	52,000

7 marks

ii) Was Keheo farm solvent or insolvent? **(1 mark)**

b) State **six** advantages of mixed cropping **(6 marks)**

c) Name the **three** zones of the production function and explain what happens in each of the production zone **(6 marks)**

KCSE 2024 FINAL PREDICTION

EXPECTED EXAM 8

443/2

AGRICULTURE

PAPER 2

TIME: 2 HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

(Kenya Certificate of Secondary Education)

Instructions to students

a) *Write your name and Admission number in the spaces provided at the top of this page*
b) *This paper consists of* ***three*** *sections:* ***A, B and C***
c) *Answer all questions in sections* ***A and B***
d) *Answer any two questions in section* ***C***
e) *All answers should be written in the spaces provided*
f) *Candidate should answer the questions in English*

For Examiner's Use Only

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATE SCORE
A	1 – 17	30	
B	18 – 21	20	
C		20	
		20	
	TOTAL SCORE	**90**	

SECTION A (30 MARKS)

Answer ALL Questions in the spaces provided

1. (a) Name a breed of sheep with a lambing percentage of above 125 % and whose fleece maybe inferior due to black features. **(½ mark)**

(b) Name a goat breed which can be used for production of mohair **(½ mark)**

2.Name two tools in each case in a workshop that are used for:

(a) Assembling **(1 mark)**

(b) Holding **(1 mark)**

3. List two equipment used in handling cattle during Agricultural exhibition. **(1 mark)**

4. State **four** methods of maintaining good health in livestock. **(2 marks)**

5. (a) State **four** desirable qualities of milk. **(2 marks)**

(b) State **four** major dairy processors and distributors in Kenya. **(2 marks)**

6. State **four** characteristics of livestock succulent roughage feedstuff. **(2 marks)**

7. State **four** common bacterial diseases that affect livestock in the farm. **(2 marks)**

8. State **four** advantages of using corrugated iron sheets for roofing. **(2 marks)**

9. Give **two** reasons for spreading a damp proof coarse of PVC on the top of foundation. **(1 mark)**

10. (a) State **four** roles played by engine oil in a tractor engine. **(2 marks)**

(b) State **four** practices through which a farmer would ensure that no engine knock occurs in a tractor **(2 marks)**

11. State **two** factors that influence the respiration rate in animals **(1 mark)**

12. State **four** practices that ensure maximum harvest of fish from a fish pond**. (2 marks)**

13. State **two** difference between dromedary species of camel and Bactrian**. (1 mark)**

14. State **one** farm implement which can be used in both primary and secondary operations **(½ mark)**

15. Give a reason why Irish potatoes should not be fed to ruminant animals **(½ mark)**

16. List **four** routes through which pathogens can enter the body of an **animal** **(2 marks)**

17. State **four** reasons why farmers give milk to kids using artificial method. **(2 marks)**

SECTION B (20 MARKS)

Answer all questions in this section in the spaces provided

18. The pictures below show some of the farm tools, observe them and answer the questions that follow



W



D



Y

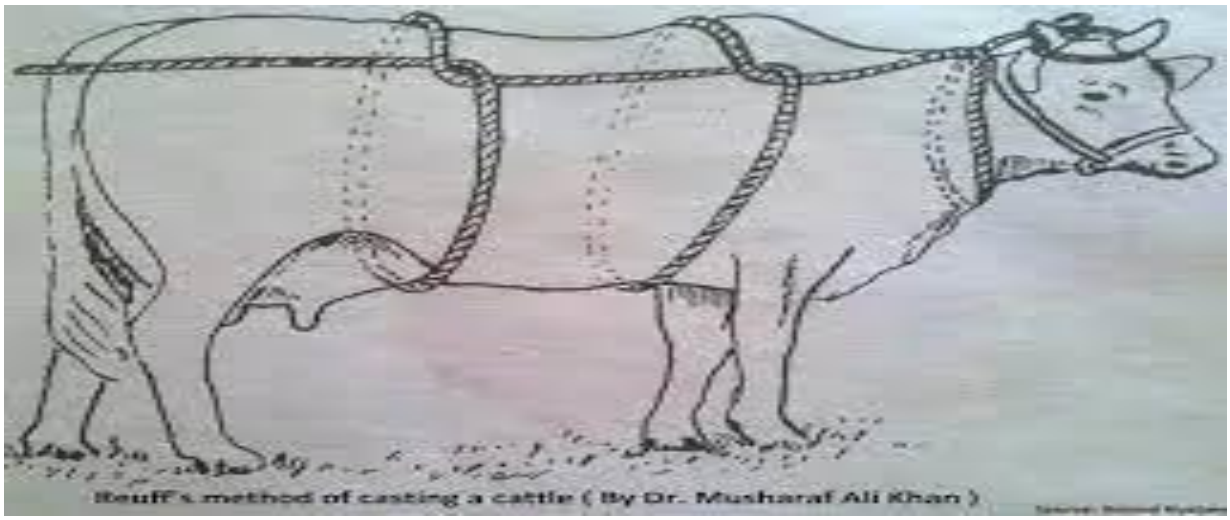


Z

(a) Identify each of the tools shown above W, D, Y, Z **(4 marks)**

(b) State the use of the tool labeled Z and W **(1 marks)**

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

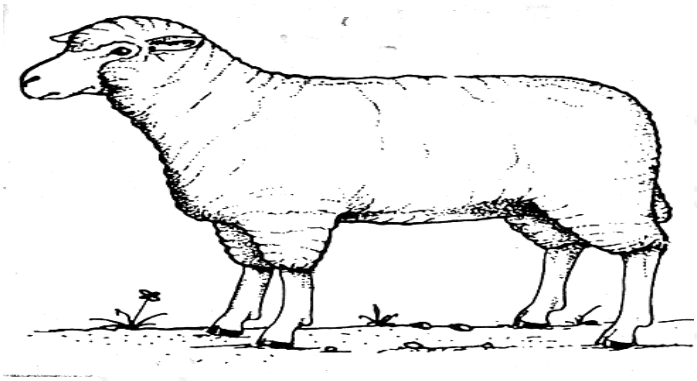


(a) Identify the practice **(1 mark)**

(b) Outline **three** management practices that are usually carried out after restraining an animal **(3 marks)**

(c) Name one precaution observed when carrying out the practice **(1 mark)**

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



(a) Outline **two** reasons for raddling **(2 marks)**

(b) Using letter R, indicate on the diagram the site of ringing **(1 mark)**

(c) Using letter C, show the position of breeding chutes **(1 mark)**

(c) Give the function of fitting canvas apron/sire sine harness on the underside of rams **(1 mark)**

21. Below is a photograph of an artificial method of rearing chicks. Answer the questions below.



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

(b) Give reason why

(i) Newspapers are spread on the floor **(2 marks)**

(ii) The structure has to be round

(c) Outline **two** important practices that should be done before the arrival of the chicks **(2 marks)**

SECTION C

*Answer Any **TWO** questions in this section in the spaces provided after question 24.*

22. a) State **five** conditions that help in observing the disease symptoms in livestock **5 marks)**

b) State and explain why farmers keeping livestock. **(8 marks)**

c) Describe the typical life cycle of a tapeworm **(7 marks)**

23. a) Describe the reasons why bees swarm **(6 marks)**

b) Describe feeding of a dairy calf from birth to weaning. **(8 marks)**

c) State **six** advantages of farm mechanization **(6 marks)**

24. a) Discuss the farming in a fish pond under the following subheadings

i) Stocking (**4 marks)**

ii) Harvesting **(5 marks)**

iii) Practice carried out before fish preservation **(4 marks)**

b) Explain the causes of cannibalism in a flock of layers **(7 marks)**

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KCSE 2024 FINAL PREDICTION

EXPECTED EXAM 9

443/1

AGRICULTURE

PAPER 1

TIME: 2 HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES

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

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

For Marking Schemes Contact 0746 222 000 / 0742 999 000

SECTION A: 30 MARKS

Answer all questions in this section in the spaces provided

1. Give four reasons why farmers are encouraged to practice organic farming **(2marks)**

2. Distinguish between GDP and GNP **(2marks)**

3. What is meant by the following terms **(2marks)**

(i) Seed inoculation

(ii) Seed dressing

4. Name four types of terraces **(2marks)**

5. Name the routine field practice done by;

(a) Removal of extra suckers in a banana stool **(1mark)**

(b) Removal of old stems down to level of top foliage in pyrethrum **(1mark)**

(c) Removal of suckers from coffee bushes **(1mark)**

6. State three characteristics of phosphatic fertilizers **(1.5marks)**

7. Explain the relationship between scarcity and choice as used in agricultural economics **(1mark)**

8. Outline four ways by which crop pests are classified **(2marks)**

9. State four advantages of land consolidation **(2marks)**

10. Outline three benefits derived from trees used in agroforestry **(1½marks)**

11. State four practices which improve light intensity in crop production **(2marks)**

12. Give four factors that influence the quality of hay **(2marks)**

13. Outline two other methods of conserving forage in the farm **(1mark)**

14. State four factors that determine the demand of a commodity in a free market **(2marks)**

15. Give four varieties of tomatoes grown for processing **(2marks)**

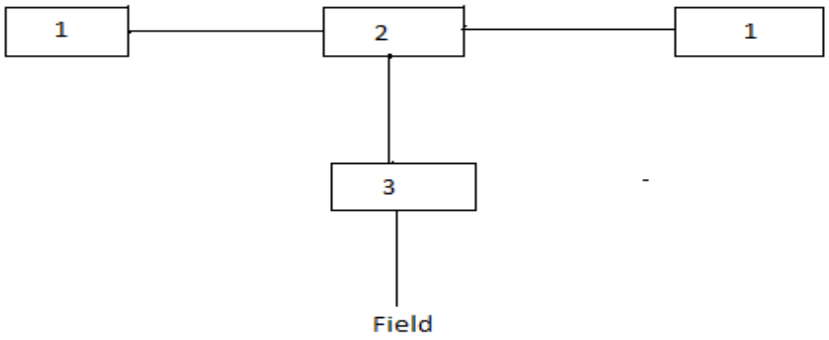
16. State two advantages of mixed farming **(1mark)**

17. Name any two land tenure systems practiced in Kenya **(1mark)**

SECTION B: 20 MARKS

Answer all questions in the spaces provided

18. Illustrated below is a method of turning compost. Study the method and answer the questions that follow.



(a) Identify the method **(1mark)**

(b) Using arrows in the diagram, show how the turning is done before the manure can be taken to the field **(2marks)**

(c) After how long should the compost be ready for use **(1mark)**

(d) Apart from the above named type of organic manure, name any other two types of organic manure **(1mark)**

19. Below is a diagram of a tertiary operation. Study it and answer the questions that follow.



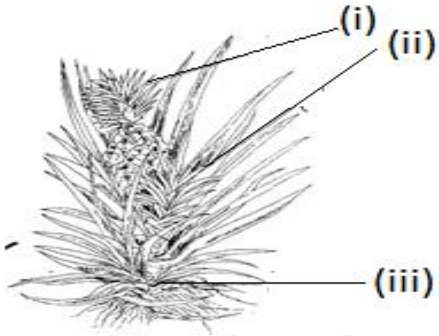
(i) Name the operation **(1mark)**

(ii) Explain the process of performing the operation **(1mark)**

(iii) Name the implement that can be used to achieve the operation **(1mark)**

(iv) State the importance of carrying out the operation **(2marks)**

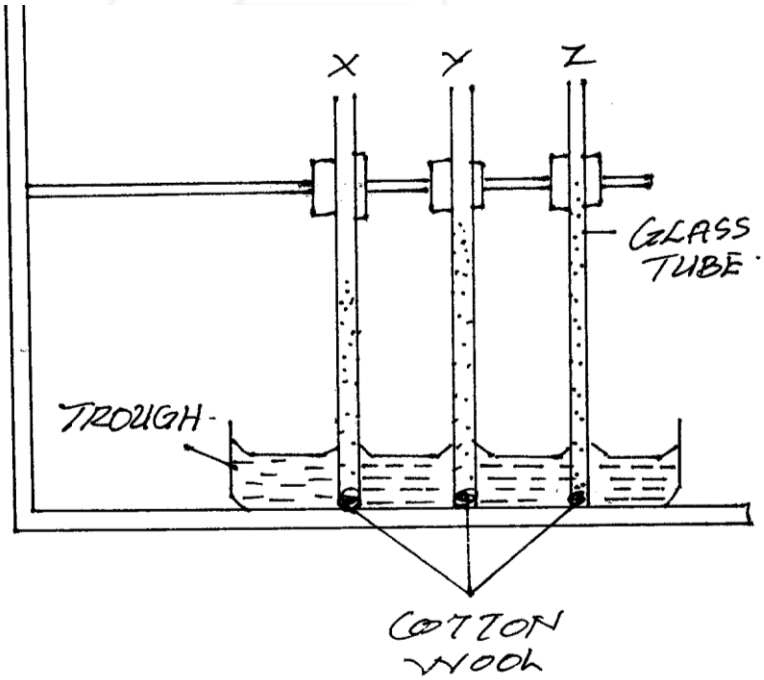
20. Below is the diagram of a planting material. Study it and answer the questions that follow.



(a) Label the parts labelled i, ii and iii **(3marks)**

(b) State two factors that determine seed rate **(2marks)**

21. Below is the set up of three different types of soil.



(a) State the aim of the experiment **(1mark)**

(b) State two ways of improving the soil structure labelled Z **(1mark)**

(c) Name three processes of rock weathering **(3marks)**

SECTION C: 40 MARKS

Answer any two questions from this section.

22. Study the following information which was extracted from Mr Kibui's farm records on 30th November 2023 and answer the questions that follow.

Loans payable to bank	Ksh.300,000
Five milking cows	Ksh.250,000
400 layers	Ksh.80,000
20 goats	Ksh.30,000
Debts payable to cooperative	Ksh.20,000
Buildings and structures	Ksh.600,000
Bonus payable to workers	Ksh.19,000
Cattle feed in store	Ksh.10,000
Animals drugs in store	Ksh.4,000
Breakages to repair	Ksh.30,000
Cash at hand	Ksh.20,000
Cash in bank	Ksh.30,000
Spray equipment	Ksh.12,000
Debts receivable	Ksh.18,000

(a) Prepare a balance sheet for Mr Kibui's farm using the information above **(8marks)**

(b) Was Mr Kibui's business concern solvent or insolvent **(1mark)**

(c)Name any other financial statement that can be found in Mr Kibui's farm **(1mark)**

(d)Describe five factors to consider in siting farm structures **(10marks)**

23.(a) Describe the procedure of silage making **(5marks)**

(b)State five effects of wind on crop production **(5marks)**

(c)State five precautions that should be observed when harvesting cotton **(5marks)**

(d)Why should it be advisable to use a nursery in crop production **(5marks)**

24. State five ways through which a farmer can adjust to risks and uncertainties in farming **(5marks)**

(b) Describe the marketing functions in agricultural economics **(5marks)**

(c) Describe the safety precautions a farmer should take when using herbicides **(5marks)**

(d) Explain five physical methods of pest control **(5marks)**

KCSE 2024 FINAL PREDICTION

EXPECTED EXAM 9

443/2

AGRICULTURE

PAPER 2

TIME: 2 HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

(Kenya Certificate of Secondary Education)

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FOR EXAMINERS USE ONLY

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATE SCORE
A	1-16	30	
B	17-20	20	
C	21	20	
	22	20	
	23	20	
TOTAL		90	

SECTION A: 30 MARKS

Answer ALL questions in this section in the spaces provided

1. State four features of a good pig house **(2marks)**

2. State four features of large white breed of pigs **(2marks)**

3. Name three stages of liver fluke which occurs in the fresh water snail **(1½marks)**

4. State four reasons for controlling livestock diseases **(2marks)**

5. Name four factors which determine the maintenance requirements of an animal **(2marks)**

6. Give four ways of stimulating milk let down in a dairy cow **(2marks)**

7. Distinguish between the following pair of terms as used in livestock production

(a) Ringing and crutching **(1mark)**

(b) Steaming up and flushing **(1mark)**

8. Give four reasons for maintaining a wheel barrow in good working condition **(2marks)**

9. State four symptoms of Newcastle disease in poultry **(2marks)**

10. State four disadvantages of a tractor as a source of power **(2marks)**

11.Give four conditions that reduces the quality of eggs for hatching **(2marks)**

12. Name three methods that are used in selection of breeding stock in livestock production **(1½marks)**

13. State four construction features necessary in a fish pond **(2mark)**

14. Give an appropriate terms that refers to each of the following

(i) Castrated chicken **(½mark)**

(ii) Young one of a rabbit **(½mark)**

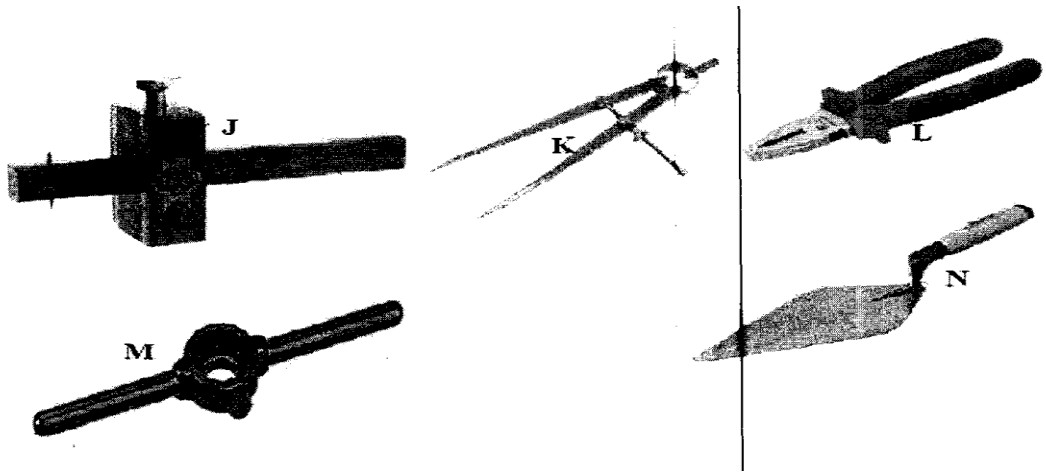
15. State four methods of dehorning **(2marks)**

16. State four disadvantages of in breeding **(2marks)**

SECTION B: 20 MARKS

Answer ALL questions in the spaces provided

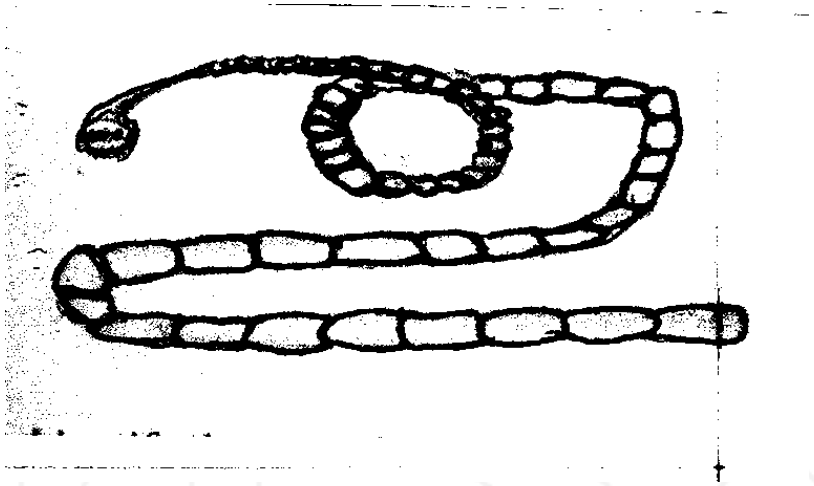
17. The diagram below represents farm tools and equipment. Study them and answer the questions that follow



(a) Identify the tools and equipment J and K **(2marks)**

(b) State the uses of tools labelled L, M and N **(3marks)**

18. The diagram below shows a livestock parasite



(a) Identify the parasite **(1mark)**

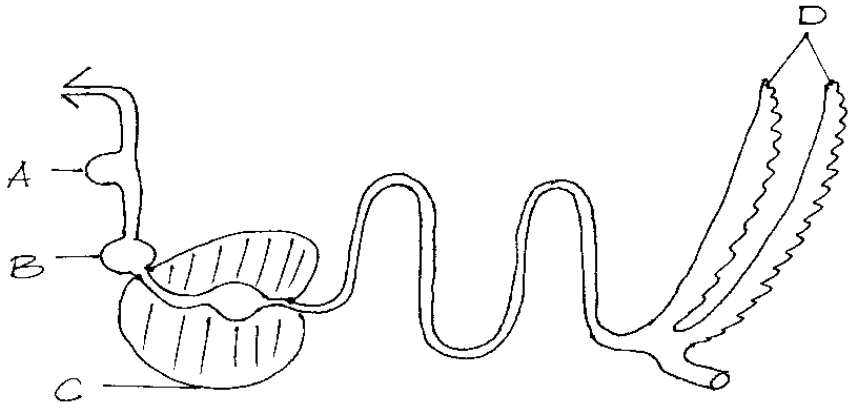
(b) Explain how the parasite can be passed from;

(i) Livestock to human beings **(1mark)**

(ii) Human beings to animals **(1mark)**

(c) State two control measures for the parasite in a zero grazing unit **(2marks)**

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



(a) Identify the parts labelled **(2marks)**

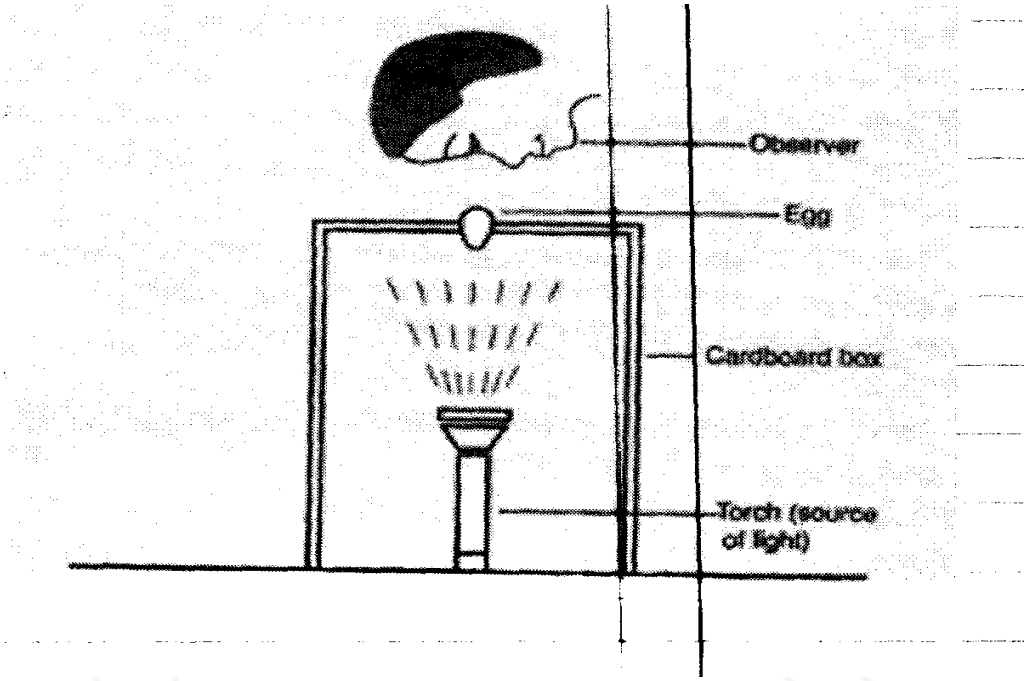
B……

D……

(b) State the function of part labelled A **(1mark)**

(c) State two adaptations of parts labelled C to its function **(2marks)**

20. Below is an illustration of an activity carried out by a poultry farmer keeping layers



(a) Give one reason for carrying out the practice in poultry layering **(1mark)**

(b) State two faults which can be detected using the method illustrated above **(2marks)**

(c) How can a farmer improve the following in poultry production

(i) Hardness of egg shell **(1mark)**

(ii) Yellowness of egg York **(1mark)**

SECTION C: 40 MARKS

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

21.(a) Describe **Ten** causes of low egg production in layers **(10marks)**

(b) Discuss foot and mouth disease under the following headings:

(i) Causal organism **(1mark)**

(ii) Livestock species attacked **(2marks)**

(iii) Symptoms of attack **(4marks)**

(iv) Control measures **(3marks)**

22.(a) Outline **five** advantages of artificial insemination in cattle management **(5marks)**

(b) Explain **five** factors that a farmer should consider when sitting a bee hive to prevent swarming **(5marks)**

(c) Explain **five** precautions taken by dairy farmer to ensure clean milk production **(10marks)**

23.(a) State **five** characteristics of light breed of poultry **(5marks)**

(b) Describe the operation of a four stroke cycle engine **(12marks)**

(c) State three good hygiene practices in livestock feeding **(3marks)**

KCSE 2024 FINAL PREDICTION

EXPECTED EXAM 10

443/1

AGRICULTURE

PAPER 1 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

(Kenya Certificate of Secondary Education)

Instructions to students

a) *Write your name and Admission number in the spaces provided at the top of this page*

b) *This paper consists of three sections: A , B and C*

c) *Answer all questions in sections A and B*

d) *Answer any two questions in section C*

e) *All answers should be written in the spaces provided*

f) *Candidate should answer the questions in English*

For Examiner's Use Only

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATE SCORE
A	1-19	30	
B	20-23	20	
C		20	
		20	
	TOTAL SCORE	**90**	

SECTION A (30 Marks)

Answer all questions in this section on the spaces provided

1. State **four** factors considered when identifying a farming system **(2 marks)**

2. What is training as used in crop production **(1 marks)**

3. Name **two** types of planting materials. **(1 mark)**

4. Give **two** ways in which soil structure influences crop production . **(1 mark)**

5. State **four** importance of raising seedlings in a nursery bed . **(2 marks)**

6. State **one** importance of soil colour in crop production. **(1 mark)**

7. Mention **three** methods of primary cultivation **(1½ marks)**

8. Give **four** reasons why green manures are not commonly used by farmer to enrich the soil **(2 marks)**

9. a) State **four** factors considered when designing a crop rotational programme. (**2 marks)**

b) Give **two** reasons why maize should not be alternated with rice in a rotational programme. **(1 mark)**

10. State **four** importance of organic matter in the soil . **(2 mark)**

11. a) What is seed scarification . **(1 mark)**

b) Give **three** ways of achieving seed scarification. **(1½ marks)**

12. Give **three** types of information contained in a labour record **(1½ marks)**

13. a) What is "government policy" as used in agriculture **(1 mark)**

b) Give three ways in which the government regulates the production and sale of agricultural goods. **(1½ marks)**

14. State **three** ways of modifying the soil pH . **(1½ marks)**

15. State **two** effects of bacteria on crop production **(1 mark)**

16. Differentiate between rolling and ridging as used in crop production. **(1 mark)**

17. Name **three** poor farming practices that lead to water pollution in the fa**rm. (1½ marks)**

18. What is "topping" as used in forage production **(1 mark)**

19. List **two** ways through which water is collected and stored in most farms **(1 mark)**

SECTION B (20 marks)

Answer all questions in this section on the spaces provided

20. Below is a diagram of sorghum seedling that has been attacked by a certain pest



a) Identify the pest **(1 mark)**

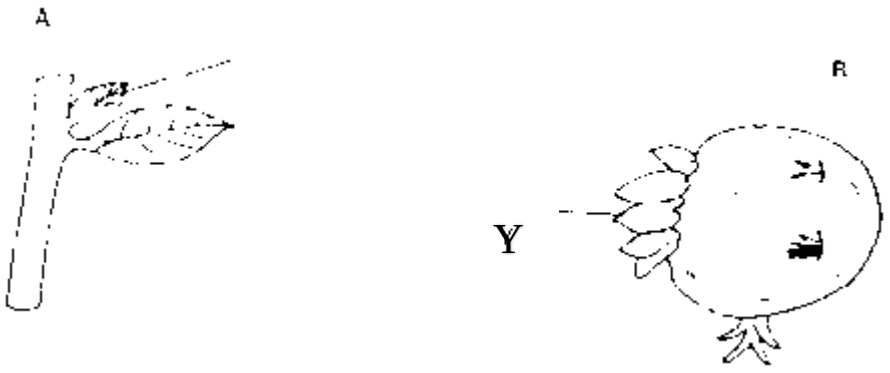
b) Identify the developmental stage of the pest named in (a) above that causes the damage.

(1 mark)

c) State the damage that has been caused by the pest named in (a) above. **(1 mark)**

d) Give **two** control measures that can be used to control the pest named in (a) above **.(2 marks)**

21. The illustration below shows materials used in vegetative propagation, labelled A and B



a) i) Identify the vegetative materials A and B **(1 mark)**

ii) Name the parts labelled **X and Y** **(1 mark)**

iii) Name the preparation method used to get the vegetative material B **(1 mark)**

iv) State **two** disadvantages of using vegetative materials for planting **(2marks)**

22. The illustration below shows a tomato fruit affected by a disease or a condition

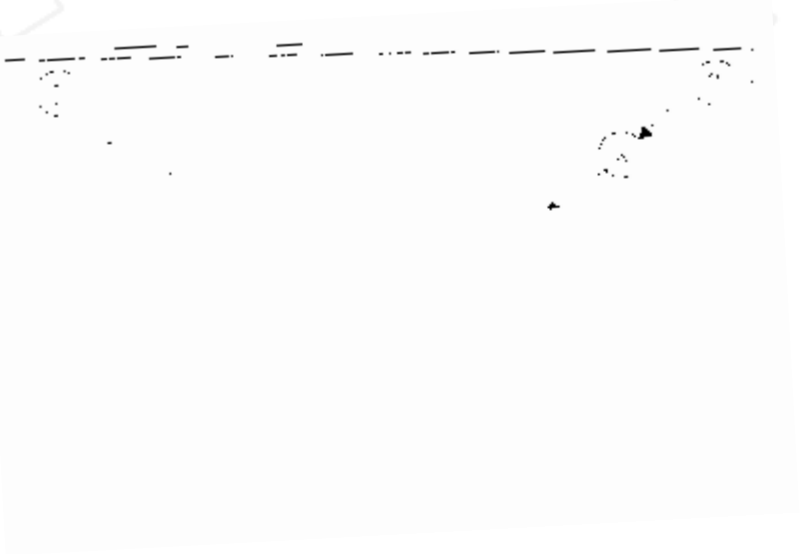


a) Identify the condition illustrated **(1 mark)**

b) State **three** conditions that predispose a tomato plant to the condition stated in (a) above **(3 marks)**

c) Name **two** other diseases that affect tomatoes **(1 mark)**

23. Below is an illustration showing a soil sampling method. Use it to answer the questions that follow.



a) What method of soil sampling is represented above **(1 mark)**

b) Outline **two** areas which should be avoided during soil sampling **(2 marks)**

c) State the **two** sets of information that should accompany the composite soil sample to the laboratory for analysis. **(2 marks)**

SECTION C (40 MARKS)

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

24. a) Explain the advantages of grass-legume pastures over a pure grass pasture . **(8 marks)**

b. Describe the effects of fragmentation and sub-division of land in our country. **(6 marks)**

c) Explain **six** biotic factors that influence agricultural production. **(6 marks)**

25. a) Explain the process of treating water in the farm using the chemical treatment system. **(12 marks)**

b) Explain **six** physical factors that increases the rate of soil erosion in farm. **(6 marks)**

c) Explain how monoculture leads to loss of soil nutrients . **(2 marks)**

26. a) Explain **ten** precautions that a farmer should observe when using farm chemicals . **(10 mks)**

b) Give **five** reasons for pruning in coffee production. **(5 marks)**

c) Describe **five** factors that influence soil formation . **(5 marks)**

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KCSE 2024 FINAL PREDICTION

EXPECTED EXAM 10

443/2

AGRICULTURE

PAPER 2 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

(Kenya Certificate of Secondary Education)

Instructions to students

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		20	
	TOTAL SCORE	**90**	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

SECTION A (30 MARKS)

Answer all the questions in this section in the spaces provided

1. State **four** roles of worker bees in a bee colony. **(2 marks)**

2. Name a tool used for **:** **(1 mark)**

a. Tightening barbed wire.

b. Digging and collecting manure.

3. List **four** routes through which pathogens can enter the body of an animal. **(2 marks)**

4. What is the name given, whereby hind legs come out first during parturition? **(1 mark)**

5. Give **two** functions of Kenya Meat Commission (KMC). **(1 mark)**

6. Name a breed of pig which has the following characteristic.

i. Black body with a white patch on the shoulders and the forelegs. **(½ mark)**

ii. White body with blue spots. **(½ mark)**

7. Mention **two** tools used in cutting mature horns in cattle**.** **(1 mark)**

8. Name the other combination of tool used together with each of the following tools. **(2 marks)**

a. Canula**…….**

b. Brace**……..**

c. Elastrator**……**

d. Wood chisel**……**

9. Give **four** factors that would affect digestibility of food in livestock**.** **(2 marks)**

10. State **two** reasons why the wire loop hanging in Kenya Top Bar Hive (K.T.B.H) is recommended to be smeared with grease. **(1 mark)**

11. State **four** reasons of castration in pig production**.** **(2 marks)**

12. Distinguish between the following practices as used in livestock production.

a. Crutching and ringing in sheep management**.** **(2 marks)**

b. Cropping and harvesting in fish farming**.** **(2 marks)**

13. State **three** aspects to examine in the dung to determine ill health in livestock. **(1 ½ marks)**

14. List **four** farm structures that are necessary for handling dairy animals**.** **(2 marks)**

15. Name the causal agent of the following livestock diseases**.** **(2 marks)**

i. Anaplasmosis……

ii. Anthrax……

iii. Swine fever……

iv. East coast fever……

16. State **three** cultural uses of livestock. **(1 ½ marks)**

17. Name the intermediate host of the following endoparasites**.** **(1 mark)**

a. *Fasciola hepatica*

b. *Taenia saginata*

18. Give **two** advantages of natural mating in pig management. **(1 mark)**

19. What is dry cow therapy? **(1 mark)**

SECTION B (20MARKS)

Answer all the questions in this section in the spaces provided

20. The following photograph shows a poultry structure, study it carefully and answer the questions that follow.



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

b. Give **three** advantages of the above structure in poultry rearing. **(3 marks)**

c. Name any other structure used for rearing poultry **(1 mark)**

21. The diagrams below show farm tools. Study them and answer the questions that follow.



J



K

a. Identify tool J and K **(2 marks)**

b. State **two** uses of the tools shown above **(2 marks)**

c. Classify the tools under woodwork tools and equipment. **(1 mark)**

22. Below is a photograph of a bull. Study it carefully and answer the questions that follow.

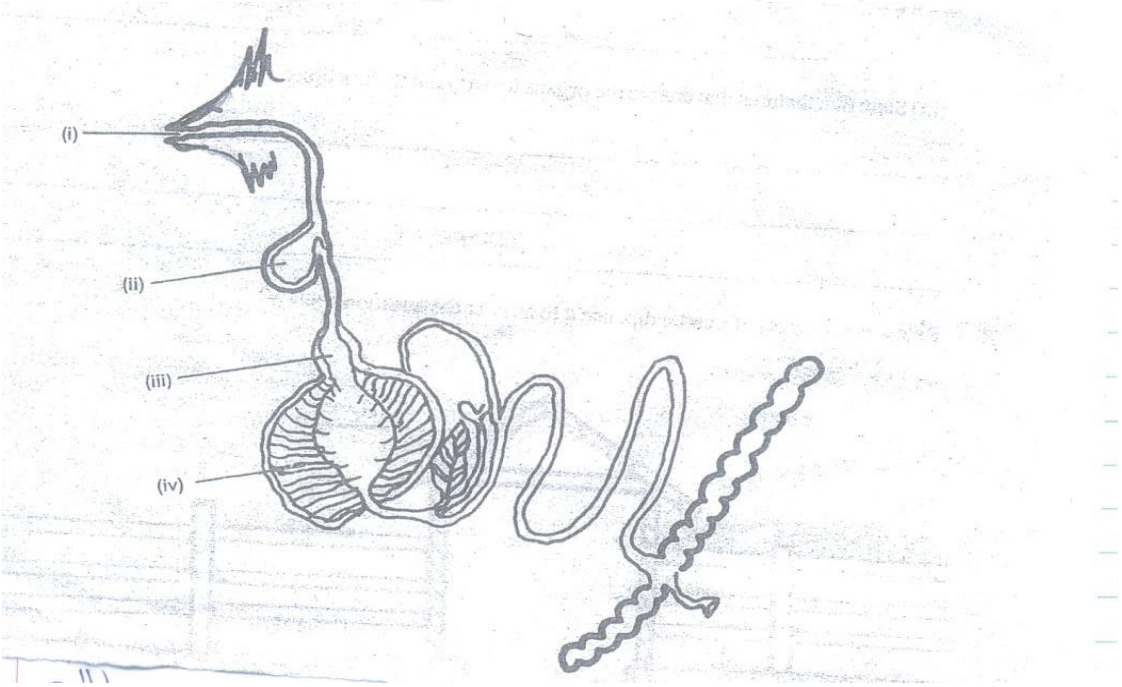


a. Name **two** observable methods of **identification** **(2 marks)**

b. State the name of the rope placed on the face around the head of the animal **(1 mark)**

c. State **two** observable characteristics of the bull shown above. **(2 marks)**

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



a. The diagram above shows digestive system of a **chicken** **(2 marks)**

Name the parts labelled:

(i)……..

(ii)…….

(iii)……

(iv)……

b. State **two** functions of part (i) above **(2 marks)**

c. State **two** features that enable the organ (iv) to carry out its **function** **(1 mark).**

SECTION C (40 MARKS)

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

24. a) Discuss the management of day old chicks to the end of brooding. **(10 marks)**

b) Explain **five** functions of water in livestock nutrition . **(5 marks)**

c) Give the management practices carried out on a hedge grow/live fence. **(5 marks)**

25. a) Outline the management practices carried out in a fish pond to ensure maximum harvest of fish. **(7 marks)**

b) State the mechanical methods used to control ticks. **(5 marks)**

c) Describe brucellosis disease in cattle under the following sub-headings:

i. Casual organism**.** **(1 mark)**

ii. Symptoms of attack **(3 marks)**

iii. Control measures **(4 marks)**

26. a) Explain **six** routine management practices carried out in rearing a dairy male calf.**(6 marks)**

b) Describe the procedure of milking using hand milking method. **(8 marks)**

c) Outline the factors that a farmer should consider when selecting materials for constructing a dairy cattle shed **(6 marks)**

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PLEASE DO NOT PANIC!

KILA LA HERI