

AGRICULTURE MOCKS

COMPRISES OF 10 TRIALS OF MOCKS

(BOTH PAPER 1 AND PAPER 2 ARE PRESENT IN EACH TRIAL)



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They have been well prepared by top experienced examiners with respect to the KCSE setting format

(SERIES 1)

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QUESTIONS ARE FREE OF CHARGE

NAME.....ADM NO.....

SCHOOL.....CLASS.....

DATE.....

AGRICULTURE MOCKS

SERIES 1 TRIAL 1 PAPER 1

Kenya Certificate of Secondary Exams

TIME:2HRS 30 MINS

SECTION A (30 MARKS)

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

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

18.State TWO ways in which burning leads to loss of soil fertility (1mark)

19.State TWO benefits of hardening off seedlings before transplanting. (1mark)

SECTION B (20 MARKS)

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

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



(i) Name the practice (1mark)

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

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

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

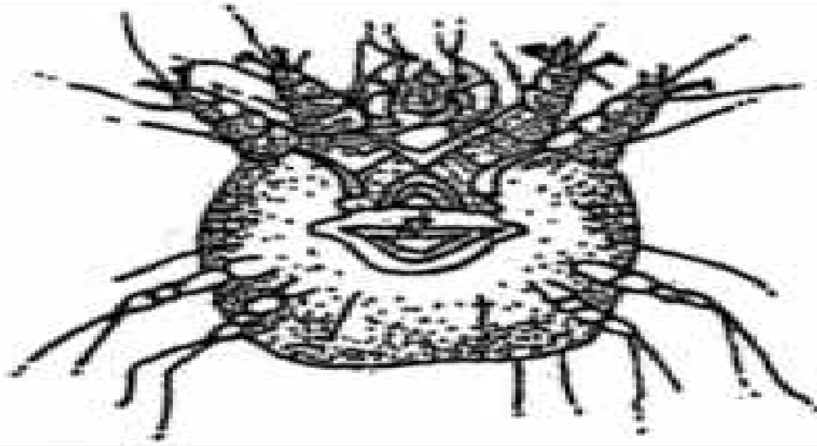
| Date | Amount Sold | Price per unit (Kshs.) | Total value (Kshs) | Where sold | Remarks |
|-----------|-------------|------------------------|--------------------|----------------------|----------------|
| 19/5/2015 | 120kg | 30 | 3,600 | Professional Agrovet | Fair Price |
| 20/5/2015 | 150kg | 32 | - | Nunguni Agrovet | To supply more |

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

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

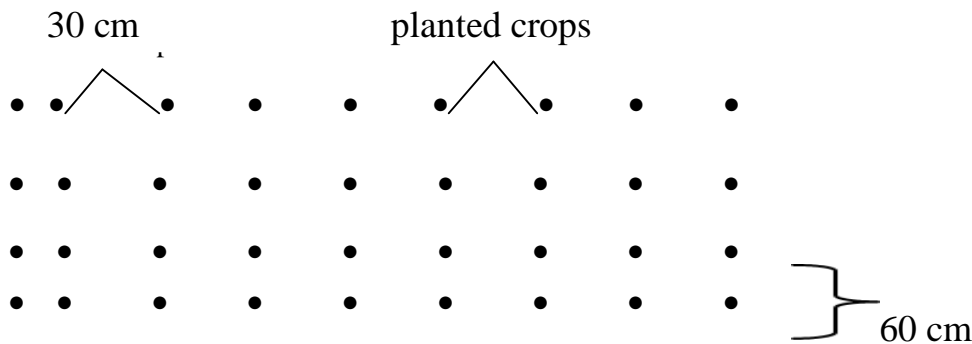
(iii)Give a farm statement that heavily depends on information extracted from the farm record named above (1mark)

22.The diagram below illustrates a crop pest



- (i) Identify the pest (1mark)
 (ii) Give **TWO** reasons why the above pest is difficult to control (2marks)
 (iii) Give a reason why indiscriminate use of pesticide on the farm may cause increased crop damage by the above pest (1mark)

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



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

SECTION C (40 MARKS)

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

- 23.(a) Explain challenges faced by Kenyan vegetable farmers in the production of crops (10mks)
 (b) Discuss various safety precautions observed when using herbicides (5mks)
 (c) Describe the benefits of minimum tillage in crop production (5mks)
 24.(a) Outline various ways in which land fragmentation increases the cost of food production in Kenya (5mks)
 (b) Describe the importances of top dressing in pasture establishment (5mks)
 (c) Explain **FIVE** factors that influence soil erosion (10mks)
 25.(a) Describe the importance of any **FIVE** nursery management practices in crop production (10mks)
 (b) State the functions of farm manager in agricultural production (10mks)

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AGRICULTURE MOCKS

SERIES 1 TRIAL 1 PAPER 2

Kenya Certificate of Secondary Exams

TIME:2HRS 30 MINS

SECTION A (30 MARKS)

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

- 1.State **FOUR** categories of produce stores found in a farm (2mks)
- 2.Give **TWO** reasons for tooth clipping in piglets (1mk)
- 3.State **TWO** uses of a rake (1mk)
- 4.State **TWO** diseases that may affect bees in a colony (1mk)
- 5.Differentiate between a heifer and a cow (1mk)
- 6.Name **FOUR** species of livestock that are affected by tapeworms (2mks)
- 7.Name **FOUR** viral diseases that affect poultry (2mks)
- 8.State **FOUR** disadvantages of natural incubation in poultry production (2mks)
- 9.Name **TWO** causes of bad flavours in milk production (1mk)
10. Give **TWO** causes of death in cows during or after parturition (1mk)
11. Differentiate between roughages and concentrates as used in livestock nutrition (1mk)
12. List **THREE** zoonotic diseases that can occur on the farm (1½ mks)
13. State **FOUR** uses of harrows on the farm (2mks)
14. State **FOUR** signs of heat in pigs (2mks)
15. Name **FOUR** plant species that can be used to establish live fences (2mks)
16. Give **TWO** benefits of scattering grains in a deep litter poultry house (1mk)
17. List **THREE** types of lubrication systems in farm machines (1½ mks)
18. List **THREE** sheep breeds reared for meat production in Kenya (1½ mks)
19. List **THREE** farm tools used during castration of farm animals (1½ mks)
- 20.Give **FOUR** disorders associated with calcium deficiency in livestock

SECTION B (20 MARKS)

Answer ALL the questions in this section in the spaces provided after every question.

The photograph below illustrates a livestock rearing practice carried out in the farm.

(2mks)



(i) Identify the practice

(1mk)

(ii) Give two farm tools used to carry out the above practice

(2mks)

(iii) Give TWO importances of carrying out the above process

(2mks)

22. Fill in the table below

(3mks)

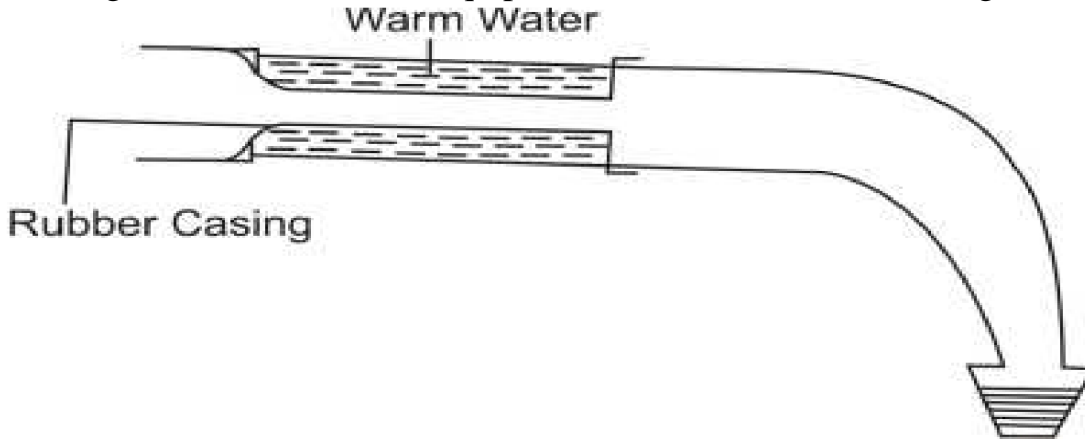
| Animal | Gestation Period |
|--------|------------------|
| Cattle | |
| Pig | |
| Rabbit | |

23. The photograph below shows a farm implement



- (i) Identify the implement (1mk)
- (ii) Label parts A and B (2mks)
- (iii) State the function of part labeled C (1mk)
- (iv) Explain TWO maintenance practices done on the implement (2mks)

24. The diagram below shows an equipment used in livestock breeding.



- (i) Identify the equipment (1mk)
- (ii) What is the importance of:
 - (a) Using warm water on the equipment (1mk)
 - (b) Smearing Vaseline jelly on the rubber casing before use (1mk)
- (iii) Outline the procedure of using the above equipment in the farm (3mks)

SECTION C (40 MARKS)

Answer ANY TWO questions in this section in the spaces provided after question 27

- 25.(a) Discuss symptoms of tapeworm attack in farm animals (5mks)
- (b) Discuss pneumonia disease in livestock under the following sub-headings
 - (i) Animals attached (3mks)
 - (ii) Predisposing factors (3mks)
 - (iii) Symptoms of attack (4mks)
- (c) Describe qualities of a goat house that help to control diseases (5mks)
- 26.(a) Outline the importance of water in livestock nutrition (6mks)
- (b) Give FOUR functions of the gear box in a tractor (4mks)
- (c) Discuss ways of improving milk production (5mks)
- 27.(a) Give FIVE qualities of camels that enable them to survive the harsh conditions of arid and semi-arid areas (5mks)
- (b) Outline various challenges hampering successful poultry production in Kenya (7mks)
- (c) Discuss uses of various farm hand tools in the construction of a cattle dip (8mks)

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AGRICULTURE MOCKS

SERIES 1 TRIAL 2 PAPER 1

Kenya Certificate of Secondary Exams

TIME:2HRS 30 MINS

SECTION A (30 MARKS)

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

1. State **two** precautions when handling inoculated seeds. (1mk)
2. State **four** causes of land fragmentation in Kenya. (2mks)
3. Explain the meaning of the following post-harvesting practices carried out in crops such as beans. (1½mk)
 - (i) Dusting:
 - (ii) Threshing:
 - (iii) Cleaning:
4. Give **four** characteristics that a good plant used as green manure should possess. (2mks)
5. State **four** ways in which chemical kills the weed in the crop field. (2mks)
6. Outline **three** factors that determine the method of harvesting crops. (1½mk)
7. State **three** ways in which crop rotation may improve soil fertility. (1½mks)
8. State **three** ways in which primary tillage destroy soil-borne pests. (1½mks)
9. State **four** ways of improving labour productivity in a tea plantation. (2mks)
10. Give **four** edaphic factors that influence crop production. (2mks)
11. Differentiate between the term afforestation and reafforestation. (1mk)
12. Explain the importance of gapping in crop production. (1mk)
13. State **three** possible solutions to curb the problem of perishability in horticultural crops. (1½mks)
14. Give **three** reasons why an inventory should be updated from time to time. (1½mks)
15. (a) What is meant by the term joint product as used in production economic? (1 mk)
(b) List **two** joint-products in crop production. (1mk)
16. (a) Mention **three** methods of forage conservation. (1½mks)
(b) Outline **three** effects of frequent early defoliation. (1½mks)
17. List **three** Financial Documents. (1½mks)

18. Study the following types of vegetable crops:-

- Cowpeas
- Spring onion
- Pigeon peas
- Pepper
- Tulips

Identify:-

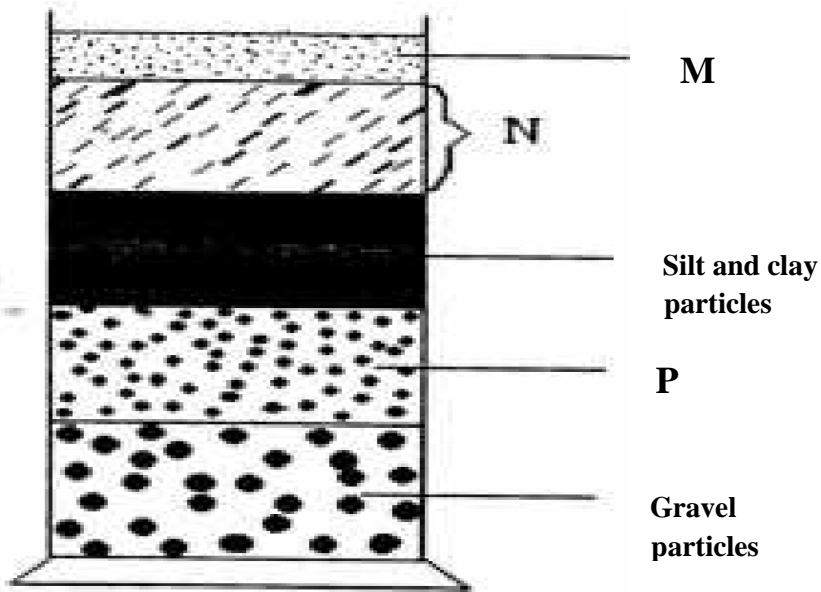
- (i) Leaf vegetable
- (ii) Fruit vegetable

(1/2mk)
(1/2 mk)

SECTION B (20 MARKS)

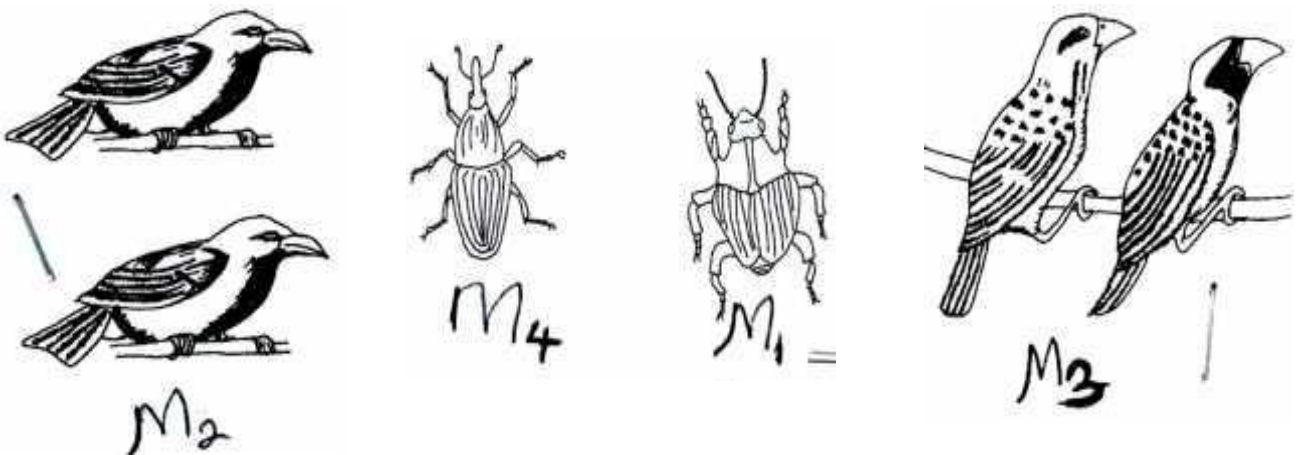
Answer all questions in the spaces provided in this section

19. The diagram below shows the result of an experiment carried out by a form one student. The student mixed water with sodium carbonate then added in a soil sample after which thorough shaking was done and the contents were left to settle on a bench.



- (a) What was the aim of the above experiment? (1mk)
- (b) Identify the layers represented by M, N and P. (2mks)
- (c) What was the role of sodium carbonate used in the experiment? (1mk)

20. The diagrams below illustrate both field and storage pests.



(a) Identify the pests in the illustration.

(1½mark)

M₁: M₂: M₃:

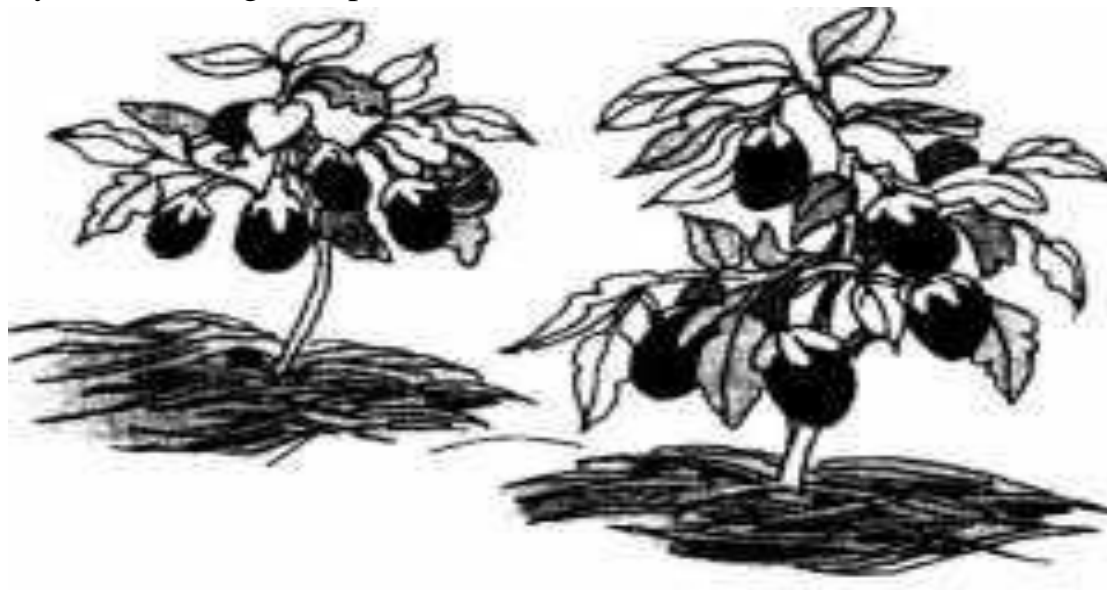
(b) State **two** ways by which pest labelled M₂ causes loss in cereal crops.

(2marks)

(c) State **three** methods which are used to control the pest labelled M₂.

(2marks)

21. Study the following field practice.



(a) Identify the practice carried out in the above diagram.

(2marks)

(b) Give **four** reasons for carrying out the above practice.

(2marks)

(c) Outline **two** limitations of the above practice.

(2marks)

22. A farmer wishes to change her enterprise from vegetable production to dairy cattle rearing. The costs she incurs in growing of vegetables is as follows:-

| | |
|------------|---------|
| Weed | Sh. 200 |
| Harvesting | Sh. 300 |
| Fertilizer | Sh. 500 |
| Seeds | Sh. 400 |

When she changes her enterprises to dairy cattle rearing, she incurs the following:-

| | |
|-----------------------|----------|
| Cost of buying cattle | Sh. 5000 |
| Disease | Sh. 200 |
| Salary of milk person | Sh. 2000 |
| Fencing | sh. 500 |

The revenue she got when growing vegetable is 10,000.

In dairy production, the revenue she gets from milk sales is Shs. 15,000 and manure sales shs. 1,000.

Draw up the partial budget and indicate the effect of the change. (Show your working)

(5marks)

SECTION C

Answer any two questions in the spaces provided

23. (a) Describe the production of beans under the following sub-topics:

- (i) Planting (2marks)
- (ii) Field Management Practices. (4marks)
- (iii) Harvesting. (2marks)
- (b) Outline the safety measures in the use of chemicals to minimize environmental pollution. (8marks)
- (c) Explain **four** qualities of a good silage. (4marks)
24. (a) Explain **five** biological factors that influence soil formation. (10marks)
- (b) Describe the causes of crop diseases. (5marks)
- (c) Describe the field production of tea under frame formation by pegging method. (5marks)
25. (a) Describe the procedure of harvesting sugarcane. (5marks)
- (b) Explain how farmers overcome risks and uncertainties in farm business.
- (c) Use the information given in the table below to answer the questions that follow. (7marks)

| Fertilizer inputs (units) | Potato yield (bags) | Marginal product (bag) |
|---------------------------|---------------------|------------------------|
| 0 | 50 | - |
| 1 | 62 | 12 |
| 2 | 66 | 4 |
| 3 | 68 | 2 |
| 4 | 69 | 1 |
| 5 | 69 | 0 |

The cost of fertilizer is shs. 320 per unit and the price of potatoes is shs. 200 per bag.

- (i) At what point of fertilizer application should the farmer be advised to stop investing in potatoes? (Show your work) (5marks)
- (ii) Give a reason for your answer in (i) above. (2marks)
- (iii) At what level is net revenue highest? (1mark)

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AGRICULTURE MOCKS

SERIES 1 TRIAL 2 PAPER 2

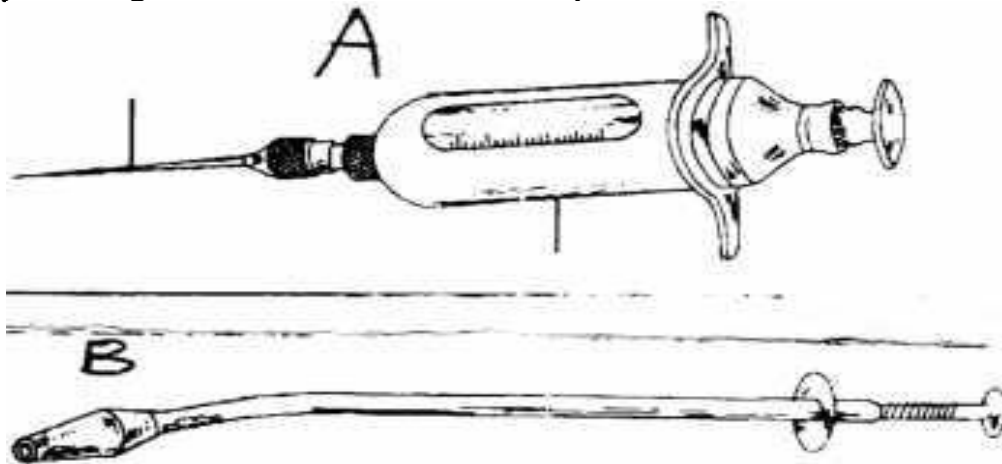
Kenya Certificate of Secondary Exams

TIME:2HRS 30 MINS

SECTION A (30 MARKS)

Answer ALL Questions in the Spaces Provided

- 1.State **four** conditions necessary for artificial incubation in poultry production.(2mks)
- 2.Name **four** Beef cattle breeds.(2mks)
- 3.Study the diagrams below and answer the questions that follow.



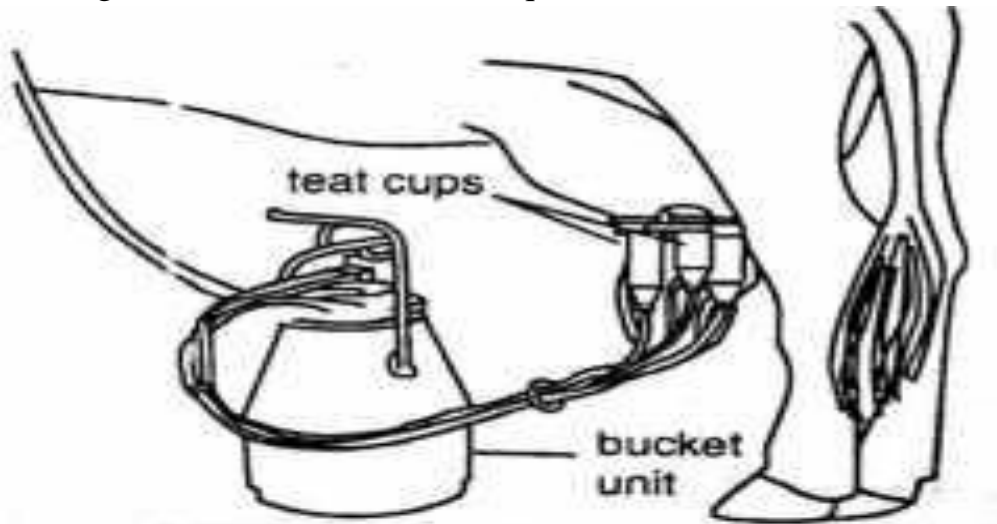
- a. Identify diagrams A and B. (1mk)
 - b. Give **two** uses of A. (1mk)
 - c. Give the use of tool B. (1mk)
4. State **four** pre-disposing factors of livestock diseases (2mks)
 5. State **four** functions of corner posts in barbed wire fences. (2mks)
 6. (a) Name **three** meat breeds of sheep. (1½mks)
(b) Name **one** wool breed of sheep. (½mk)
 7. Give **four** control measures of tapeworm. (2mks)

- 8.(a) Name the equipment used in detection of mastitis. (½ mk)
 (b) State **four** predisposing factors to mastitis. (2mks)
- 9.(a) Name **two** Meat Goat Breeds. (1mk)
 (b) Name **one** Hair Goat Breed. (½mk)
10. State **four** preventive measures in disease control in livestock. (2 mks)
 11. State **four** factors considered when planning for a farm structure. (2 mks)
 12. Apart from Dipping, give **two** other methods of Acaricide application. (1 mk)
 13. Give **two** major physical differences between Dromedary and Bactrian camels. (1 mk)
 14. State **four** disadvantages of a spray Race. (2 mks)
 15. State **three** advantages of Natural mating. (1½mk)

SECTION B (20 MARKS)

Answer all questions in the spaces provided in this section

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



- a. Identify the above practice. (1mk)
 b.(i) State the next procedure immediately after the removal of teat cups from the teats. (1mk)
 (ii) Why is it necessary to carry out the procedure in b (i) above? (1mk)
 c. What is meant by the term Dry Cow Therapy? (1mk)
 d. Which hormone is responsible for stimulating milk-let-down? (1mk)
 e. Why is it not advisable to feed silage to dairy animals just before milking?

17. The diagram below shows a certain practice in poultry production.



- a. Identify the above practice. (1mk)
- b. State **three** abnormalities that can be detected by using the above procedure. (1½mks)
- c. What is the function of egg yolk? (1mk)
18. (a) Mr. Baraza wanted to prepare a feed ration containing 20% DCP (Digestible Crude Protein). He used oats which contain 12% DCP and Simsim seed cake which contains 50% DCP. Using the Pearson's square method, compute the amounts of oat and simsim seed cake he would use to make a 100kg ration. Show your working. (4mks)
- (b) What is a ration? (1mk)
19. State **five** harmful effects of ticks in livestock production.

SECTION C

Answer any two questions in the spaces provided

20. (a) State **five** advantages of using animal power. (4mks)
- (b) Give **five** advantages of four-stroke engines. (8mks)
- (c) State **five** disadvantages of Natural mating in livestock rearing. (5mks)
- (d) Briefly explain **five** factors considered in siting an Apiary. (3mks)
21. (a) Briefly explain **five** functions of water in the body of an animal. (5mks)
- (b)(i) Define the term Notifiable disease. (1mk)
- (ii) Give the causal organism for Anthrax. (1mk)
- (c) State **five** symptoms of East Coast Fever. (5mks)
- (d) Give **five** characteristics of Beef Cattle Breeds. (5mks)
22. (a) Give **four** reasons for Dehorning in livestock production. (4mks)
- (b) Explain **eight** factors to be considered when selecting a breeding stock. (16mks)

NAME.....ADM NO.....

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AGRICULTURE MOCKS

SERIES 1 TRIAL 3 PAPER 1

Kenya Certificate of Secondary Exams

TIME:2HRS 30 MINS

SECTION A (30 MARKS)

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

1. Differentiate between olericulture and pomoculture as used in crop production . (1mrk)
2. List the physical weathering agents in soil formation process (1½ mrks)
3. Give four method of farming (2mrks)
4. Give two examples for each of the following types of cost incurred in broiler production.
 - a)Variable cost (2 marks)
 - b)fixed cost (2 marks)
5. Give four advantages of crop rotation . (2mrk)
6. State four factors that that should be considered when classifying crop pest (2mrks)
7. Give three reasons why a water logged soil is unsuitable for most crops (1½mks)
8. Give four advantages of tissue culture (2mrks)
9. Outline four observable indicators of economic development of a nation (2mrks)
10. Outline four indicators of well decomposed manure (1½mks)
11. Give two conditions where opportunity cost does not exist (2mrks)
12. Give four management practice that promote high herbage yields in pasture production (2mrks)
13. Give three reasons why primary cultivation should be done early before the onset of the rains (1½mks)
14. Give two examples of farm records that are general in nature . (1mrk)
15. Give four role of nitrogen in plants (2mrks)
16. Give four benefits of possessing a land title deed (2mrks)

SECTION B (20 MRKS)

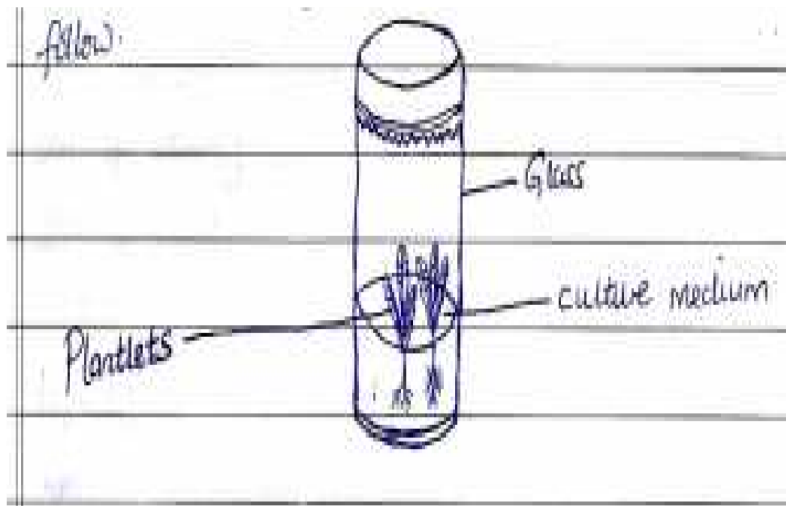
Answer all the questions in this section in the spaces provided

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



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

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



- a) Identify the method (1mrk)
- b) Name two crops that can be propagated using this method. (1mrk)
- c) Give three ingredients used when preparing the tissue culture. (1 1/2mks)

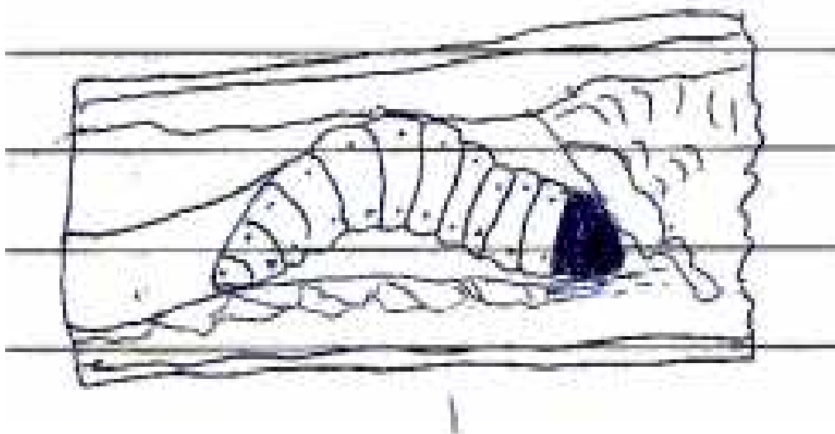
19. The following information was obtained from the records of Mr Juma's farm for the year ended on 31st march 2011

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

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

b) Giving a reason, State whether Mr. Juma's farm made a profit or loss (½ mark)

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



- a) Identify the pest (1/2mks)
b) Apart from maize, name another crop attacked by the pest named above (1/2 mark)
c) Give three cultural measures that can be applied to control the pest (3mrks)

SECTION C (40MARKS)

Answer any two questions in this section in the spaces provided

- 21 a) Describe six advantages of rotational grazing (6mrks)
b) Explain eight ways in which soil fertility can be maintained (8mrks)
c) Explain six factors considered when drawing a farm plan (6mrks)
- 22 a) Explain the factors that influence the type of irrigation to be used in a farm (8mrks)
b) Explain six reasons for pruning coffee. (6mrks)
c) Describe 6 ways in which labour productivity can be improved on a farm (6mrks)
- 23 a) Describe five importance of agro-forestry in soil and water conservation (6mrks)
b) Describe the procedure of silage making (10mrks)
c) Describe five effect of over application of nitrogenous fertilizer. (5mrks)

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AGRICULTURE MOCKS

SERIES 1 TRIAL 3 PAPER 2

Kenya Certificate of Secondary Exams

TIME:2HRS 30 MINS

SECTION A (30 MARKS)

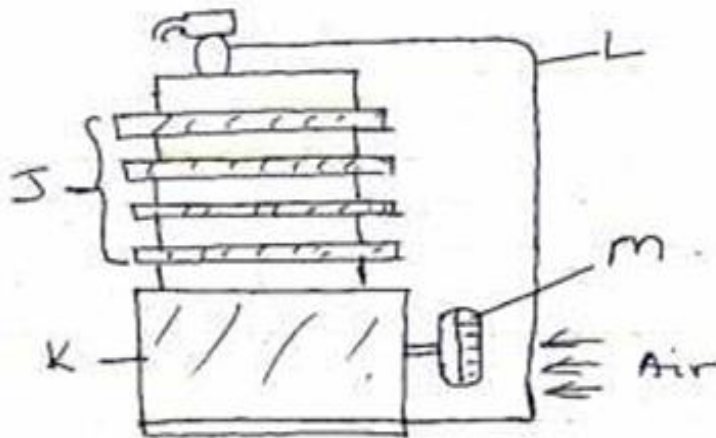
Answer ALL the questions in this section in the spaces provided.

- 1.Name the most appropriate tools used in the following operations
a)Removing metal chippings in file (1mark)
b)Cutting wood along grains (1mark)
c)Branding (1marks)
- 2.State **four** characteristic of Boran cattle (2marks)
- 3.State **two** functions of a useful bacteria in livestock production (1mark)
- 4.Name **four** function of lipid in an animal body (2marks)
- 5.State **two** ways of reducing friction in moving part of farm tool (1mark)
- 6.Outline **four** types of fence that can be used in mixed farm (2marks)
- 7.Name **three** methods of out breeding in livestock production. (1 ½ marks)
- 8.Give **two** reasons for tailing in sheep production (1mark)
- 9.Name any **five** internal parts of cow's udder (2 ½ marks)
10. Give **five** ways of transmitting livestock diseases (2 ½ marks)
11. Give **four** features of improved grain bin (2marks)
12. Give **three** types of calving complications. (1 ½ marks)
13. State **four** advantages of zero grazing as a grazing system (2marks)
14. State **two** functions of a queen bee in a colony (2marks)
15. Name **four** symptoms of anaplasmosis in livestock (2marks)
- 16 .What do you understand by the following terms as used I animal production .

SECTION B (20Mrks)

Answer all the questions in the spaces provided

17. Below is a diagram of a cooling system .Study it and answer the questions that follow



a)Identify the type of cooling system illustrated

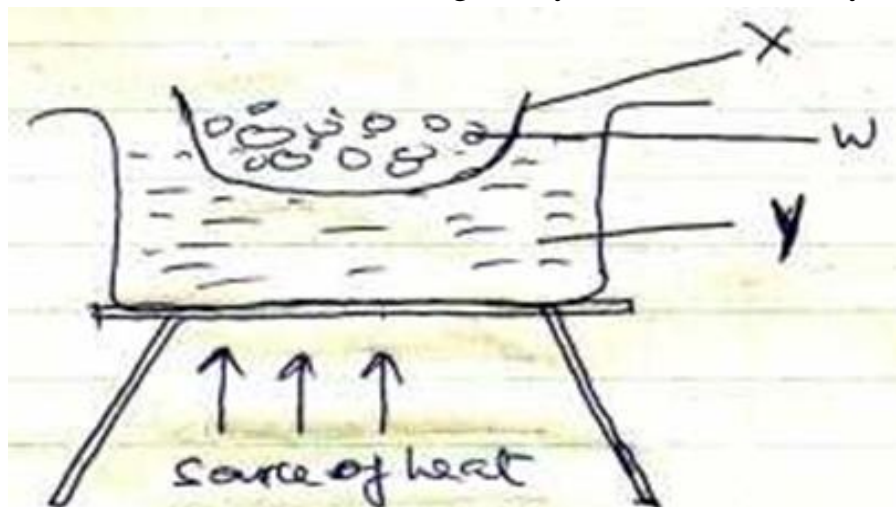
(1mrk)

b)Name parts labelled J, K , L and M

(2mrks)

c).Name two problems associated with the type of cooling system illustrated above(2mrks)

18. Below is an illustration of a method of extracting honey from combs .Study the diagram



and answer the question that follow .

a)Identify the above method of extracting honey

(1mrk)

b)Give a reason why container x should not be heated directly

(1mrk)

c)Name the parts labeled w and y

(2mrks)

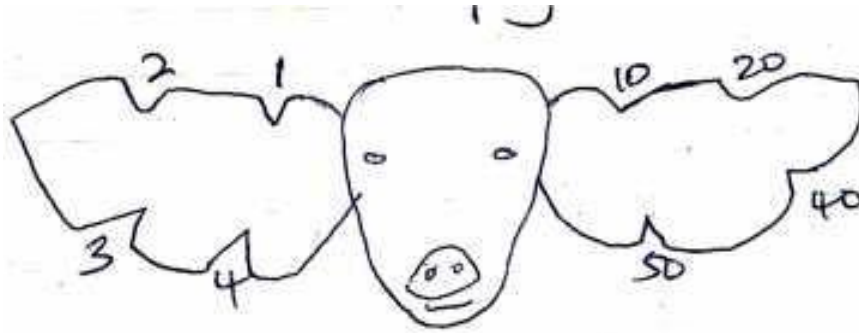
d)Besides the above method ,State one other method of extracting honey

(1mrk)

Identify the above method of extracting honey

Besides the above method ,State one other method of extracting honey

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



- a) Identify the practice illustrated above (1mrk)
- b) Draw another illustration depicting pig number 37 (1mrk)
- c) Name the tool used to carry out the practice illustrated above (1mrk)
- d) State two other method of indentifying piglet

20 .Below is an illustration of a farm operation .Study it carefully and answer the question that follow. (2mrks)



- a) Identify the activity being carried out (1mrk)
- b) Give one other activity carried on the animal before the above operation is carried out (1mrk)
- c) Outline the procedure of carrying out the above operation (3mrks)

SECTION C

Answer any two questions in the space provided

- 21.a) Outline management practice carried out in a fish pond to ensure maximum harvest of fish (7mrks)
- b) Discuss the importance of farm mechanization (6mrks)
- c) Discuss the short term maintenance practices carried out on a tractor (7 marks)
- 22.a) Explain the feature of a piggery unit (10mrks)
- b) Explain the factor that influence the work output of a draught animal (10mrks)

23.a) Outline various method of controlling ticks

(10mrks)

b) Describe the management of growers up to the point of lay

(10mrks)

NAME.....ADM NO.....

SCHOOL.....CLASS.....

DATE.....

AGRICULTURE MOCKS

SERIES 1 TRIAL 4 PAPER 1

Kenya Certificate of Secondary Exams

TIME:2HRS 30 MINS

SECTION A (30 MARKS)

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

SECTION A (30 MARKS)

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

1. What is meant by the following terms
(a) Under sowing. (1mark)
(b) Over sowing. (1mark)
(c) Ammonification. (1mark)
2. State four qualities of a scion for use in vegetative propagation materials (2marks)
3. Give two advantages of compound fertilizer. (2marks)
4. State four effects of soil depth on crop production. (2mark)
5. Give four ways of improving sandy soils. (2marks)
6. State two reasons for rolling in wheat crop productivity. (2marks)
7. Give four roles of cost agricultural economics. (2 marks)
8. State two effects of varying spacing in maize production. (1 mark)
9. State three financial documents in agricultural production. (1½ marks)
10. Give four disadvantages of concession land tenure systems. (2 marks)
11. State five symptoms of viral diseases in crop production. (2½ marks)
12. Give four factors that are considered when selecting a nursery site. (2 marks)
13. Distinguish between seed dressing and seed inoculation. (2 marks)
14. Give three reasons for cutting back in pyrethrum. (1½ marks)
15. Give five ways in which consolidation helps to improve farm management. (2½ marks)

SECTION B (20 MARKS)

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

16.i) The following is a farm record Mr. Makau had kept as at 30th June 2011. Study it carefully and

prepare a balance sheet for the farm.

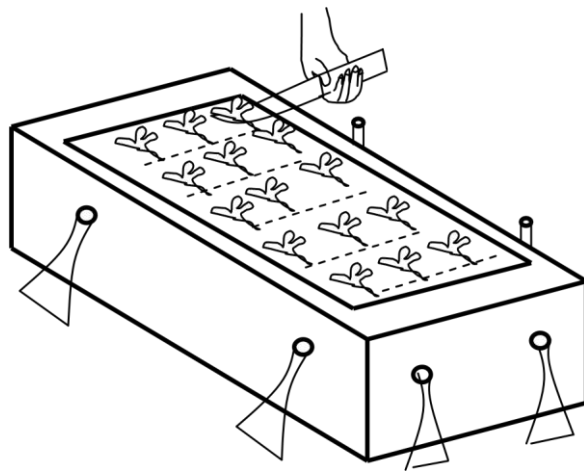
(6 marks)

| | |
|------------------|---------|
| Equity loan | 180,000 |
| Equity overdraft | 24,000 |
| Working tools | 30,000 |
| Cash at hand | 15,000 |
| Cash in bank | 50,000 |
| Buildings | 60,000 |
| Debtors | 18,000 |
| Goats | 48,000 |
| Land | 70,000 |
| Creditors | 49,000 |
| Ox plough | 20,000 |

ii) Is Mr. Makau business solvent or insolvent? Explain

(2 marks)

17. The diagram below illustrates an agroforestry practice. Study it and answer the questions that follow.



i) Identify the agroforestry practice illustrated above.

(1/2 marks)

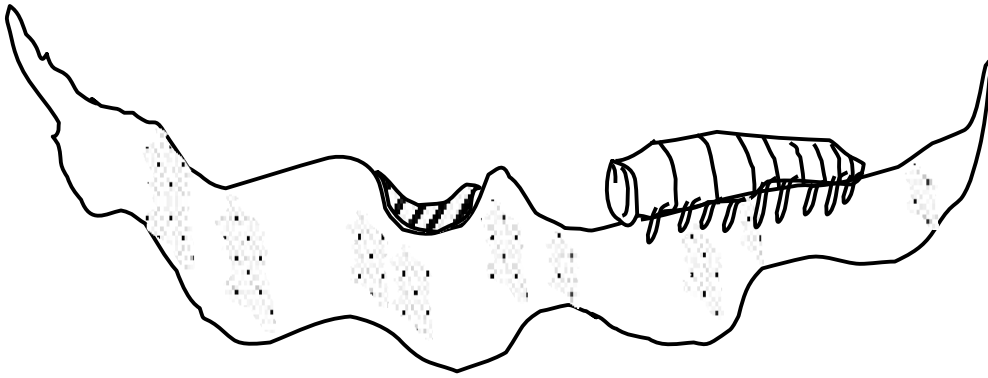
ii) State advantages of the practice illustrated above.

(3 marks)

iii) State three forms of agroforestry.

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

(1½ marks)



- a. Identify the pest (1 mark)
- b. State two methods of controlling the pest. (2 marks)
- c. Name the crops attacked by the pest. (1 mark)

19. The diagram below illustrates a field management practices in tomatoes



- i) Identify the practice (1 mark)
- ii) State three reasons for carrying out the practice. (3 marks)
- iii) Give another practice that could be carried out to give the same results. (1 mark)

SECTION C (40 MARKS)

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

- 20.a) State the functions of the Kenya National Federation of Producers in Kenya (5 marks)
- b) State five factors considered when drawing a farm plan (5 marks)

- c) Describe the harvesting of cotton **(10 marks)**
- 21.a)** Describe the production of carrots under the following sub headings
- b) Seedbed preparation **3 marks)**
 - c) Harvesting **(4 marks)**
 - d) Explain five cultural methods of weed control in bean production. **(10 marks)**
 - e) Outline three roles of sulphur in crop production. **(3 marks)**
- 22.a)** Explain the effects of solifluction **(6 marks)**
- b) Outline importance of grafting in oranges **(4 marks)**
 - c) Describe ways of improving labour efficiency **(10 marks)**

NAME.....ADM NO.....

SCHOOL.....CLASS.....

DATE.....

AGRICULTURE MOCKS

SERIES 1 TRIAL 4 PAPER 2

Kenya Certificate of Secondary Exams

TIME:2HRS 30 MINS

SECTION A (30 MARKS)

Answer ALL the questions in this section in the spaces provided

SECTION A (30 MARKS)

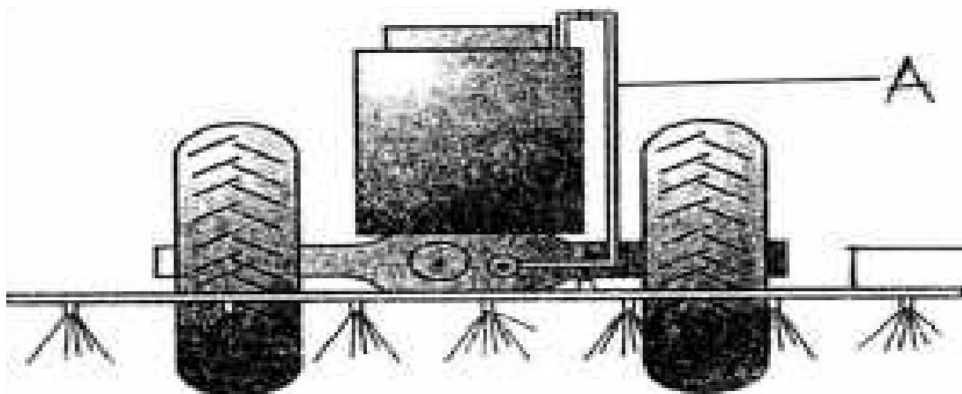
Answer all the questions in this section in the spaces provided.

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

SECTION B (20 MARKS)

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

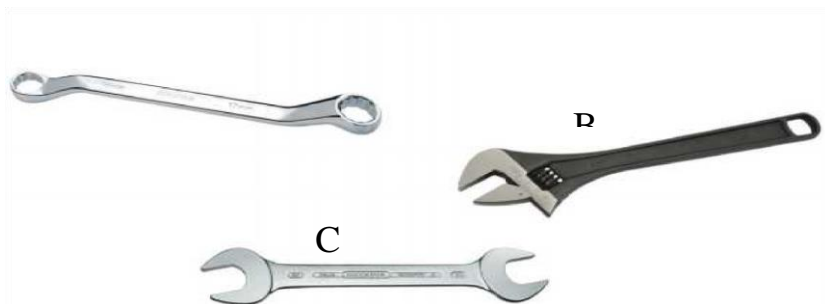
17. Below is a diagram illustrating a farm implement, Study it and answer the questions that follow.



- a) Identify the implement illustrated above. **(1 mark)**
- b) State the use of the implement on the farm. **(1 mark)**
- c) Explain three maintenance practices carried out on the implement. **(3 marks)**

18. Below are illustrations of farm tools and equipment.

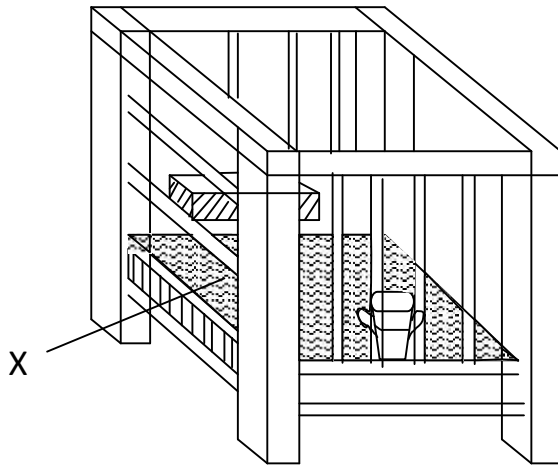
A



- a) Identify the tool labelled A and C **(2marks)**
- b) State the advantage of tool B over tool C **(1 mark)**
- c) State two maintenance practices carried out on tool labelled B.

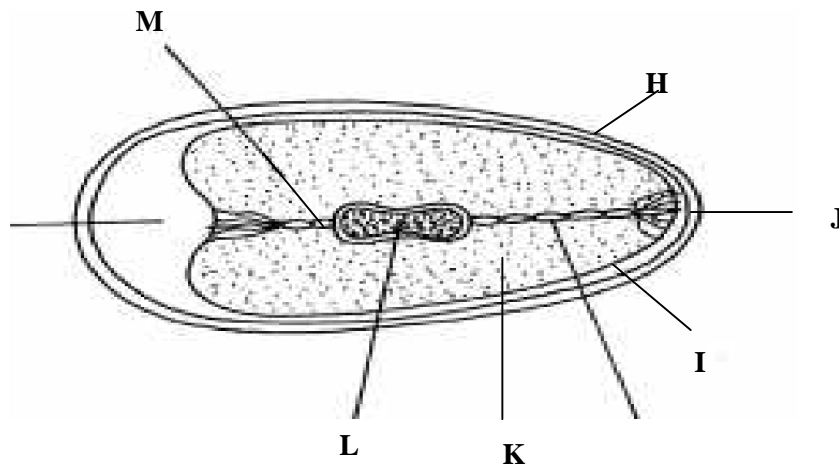
19. Below is a farm structure. Study it carefully and answer the questions that follow.

(2 marks)



- a) Identify the farm structure above (1 mark)
- b) State the requirement of the part labelled X (1 mark)
- c) State three maintenance practices that should be carried on the structure. (3 marks)

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



- a) Name the parts labelled I, J, K and M. (2 Marks)
- b) Give two qualities of the part labelled H that would be considered when selecting eggs for incubation. (2 Marks)
- c) What is the function of the part labelled L (1 Mark)

SECTION C (40 Marks)

Answer any two questions from this section.

- 21.a) State five reasons for feeding livestock (5 marks)
- b) Describe the factors a farmer should consider when selecting a gilt for breeding. (8 marks)
- c) Outline routine management practices that should be carried out on a lactating ewe. (7 marks)
- 22.a) Outline routine maintenance practices that should be carried out in deep litter system.

- (6 marks)**
- b) State eight practices that would ensure clean milk production. (6 marks)**
- c) Compare the use of an ox-drawn mouldboard plough with that of a tractor drawn plough (10 marks)**
- 23.a) Describe the importance of farm mechanization. (6 marks)**
- b) Describe East Coast Fever under the following sub headings**
- i) Causal organism (1 marks)**
- ii) Signs of infection (5 marks)**
- iii) Control measures (3 marks)**
- c) Outline five causes of stress in poultry. (5 marks)**

NAME.....ADM NO.....

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DATE.....

AGRICULTURE MOCKS

SERIES 1 TRIAL 5 PAPER 1

Kenya Certificate of Secondary Exams

TIME:2HRS 30 MINS

SECTION A (30 MARKS)

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

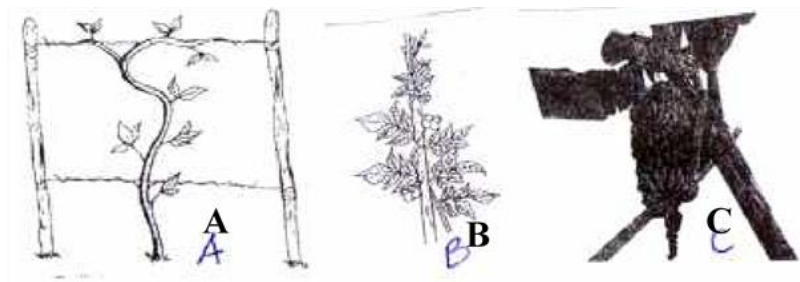
1. Give **two** examples of the following (3marks)
- a) Organic manures
 - b) Straight fertilizer
 - c) Incomplete compound fertilizer
2. Name the primary macronutrient responsible for the following in plants. (2marks)
- i) Protein synthesis
 - ii) Proper root establishment and development
3. a) State two types of inventories kept in a farm. (1mark)
- b) Differentiate between the two inventories in 3. a) above. (1mark)
4. State **four** factors that would increase the seed rate of maize. (2marks)
5. Give the role of the following in water treatment process. (1½ marks)
- a) Aluminium sulphate
 - b) Chlorine
 - c) Sodium bicarbonate
6. Outline **one** importance of the following field practices: (1½ marks)
- a) Pricking out
 - b) Hardening off
 - c) Gapping
7. State and explain **three** factors that determine the depth of planting. (3marks)
8. What is the meaning of the following terms:
- a). Arable farming

- b) Seed rate
 - c) Opportunity cost
 - d) Organic farming (2 marks)
9. Give **four** ways government policy contributes to Agriculture. (2marks)
10. Differentiate between the following terms: (2marks)
- a) Forage crop and fodder crop
 - b) Oversowing and undersowing
11. State **two** crop production practices that can be carried out to maintain appropriate plant population. (1mark)
12. List **two** practices carried out during hardening off seedlings in tomato production. (1mark)
13. Give **four** reasons why grains should be properly dried before storage. (2marks)
14. Outline **four** merits of concession or company form of land tenure. (2marks)
15. a) State **two** precautions that should be observed in harvesting cotton. (1mark)
- b) List **two** methods of plucking tea. (1mark)
16. State **two** effects of too much air in a silo during silage making. (1mark)
17. Name two sources of water in the farm (1 mark)

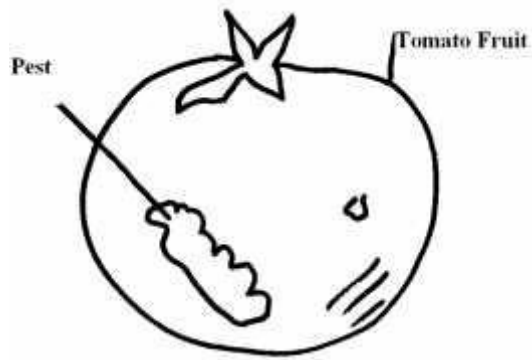
SECTION B (20 MARKS)

Answer all the questions in this section in the spaces provided

19. Below are illustrations of different forms of a field practice carried out in a farm. Use them to answer the questions that follow.



- a) Identify the field practice and name each of the forms labeled A, B and C. Field Practice (2marks)
- b). State **three** importance of the above field practice.
19. Study the diagram illustrated below and answer the questions that follow. (3marks)



- a) Identify the pest. (1mark)
- b) Explain how the pest causes damage to the crop. (1mark)
- c) Outline **three** control measures of the pest. (3marks)

20. A farmer has four plots **P1**, **P2**, **P3** and **P4** as shown in the table below. Each plot has an agronomic problem as indicated.

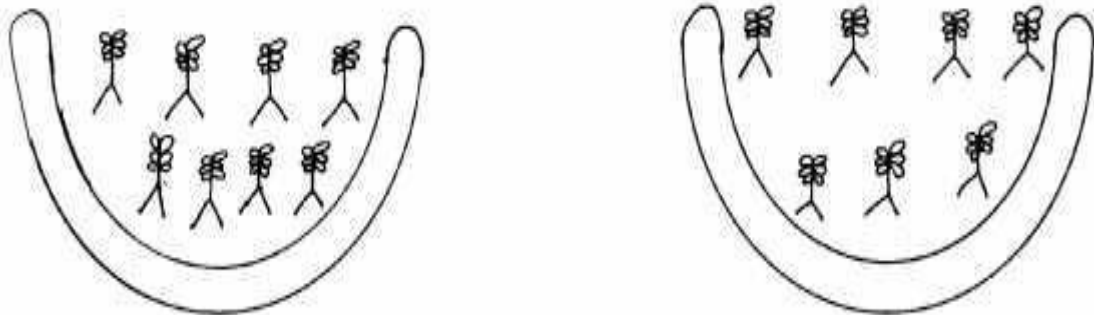
| P1 | P2 | P3 | P4 |
|------------------------------|-----------------------|---|-----------------------|
| Infested with bacterial wilt | Deficient in nitrogen | Infested with witch grass (<i>Striga spp</i>) | Prone to soil erosion |

a) A farmer intends to grow maize, Irish potatoes, beans and Rhodes grass. Plan a rotation for the first year of the rotation system. (2marks)

P1, P2, P3, P4

b). Account for the plan above. (4marks)

21. Study the diagram below



- i) Identify the type of micro catchments illustrated above. (1mark)
- ii) Name one type of crops that you can recommend to be grown under this type of micro – catchments. (1mark)
- iii) State **two other** types of micro- catchments that are commonly used on the farms. (1marks)

SECTION C (40MKS)

Answer any two questions from this section on the foolscaps provided.

22. (a) Outline **five** disadvantages of communal land tenure. **(5marks)**
(b) Name three forms of agroforestry **(3marks)**
(c) Give eight uses of trees in the farm **(4marks)**
(d) Describe the procedure of transplanting tree seedlings **(8marks)**
23. (a) What is a profit and loss account as used in farm accounting **(1mark)**
(b) The information below was gotten from Zipporah's farm. Use it to prepare a profit and loss account for Zipporah's farm for the year ended 31st Dec. 2007.(12mks)

| <u>Item</u> | <u>Kshs.</u> |
|---|--------------|
| Maize seeds | 10,000 |
| D.A.P Fertilizer | 25,000 |
| Tractor disc plough | 50,000 |
| Diesel fuel | 12,000 |
| Milk cans | 2,500 |
| Knapsack sprayer | 6,500 |
| Vetinary drugs 5,000 Herbicides 18,000 | |

During the year the following items were sold.

| | |
|------------------|---------|
| Maize to N.C.P.B | 210,000 |
| Milk to K.C.C. | 500,000 |
| Weaners | 35,000 |

Other vital information from records.

| | |
|---------------------------------------|---------|
| Opening valuation | 300,000 |
| Closing valuation | 600,000 |
| Debts receivable for tractor services | 28,000 |
| Interest payable to bank | 3,000 |
| Depreciation of machinery | 7,500 |

- (c) Is the farm operating at a profit or loss? **(1mark)**
(d) How much profit or loss did the farm realize? **(1mark)**
(e) Calculate the percentage profit or loss made by the farm **(2marks)**
(f) State the meaning of the following financial documents **(3marks)**
 i) Invoice
 ii) Delivery Note

iii) Receipt

24. (a) Outline the benefits of timely planting in cereal production. (10marks) **(b)** Explain biotic factors that influence agriculture. (10marks)

NAME.....ADM NO.....

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AGRICULTURE MOCKS

SERIES 1 TRIAL 5 PAPER 2

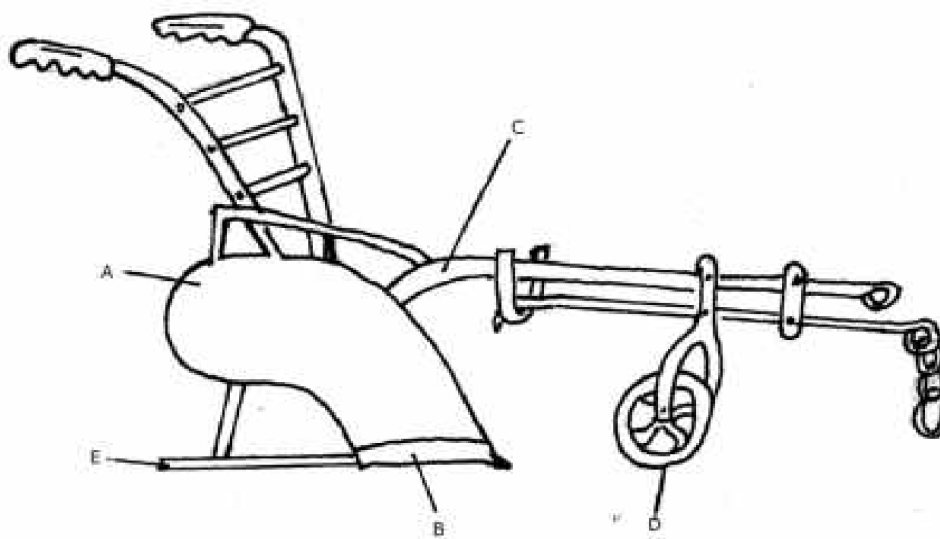
Kenya Certificate of Secondary Exams

TIME:2HRS 30 MINS

SECTION A (30 MARKS)

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

1. Outline **FOUR** reasons for steaming up a gestating cow (2marks)
2. Name a tool recommended for the following practices in the farm
i) Smoothing rough surface of wood
ii) Making threads on metallic pipes
iii) Breaking stones during construction and ballast in masonry (3marks)
3. Name **FOUR** diseases transmitted by ticks (2marks)
4. Give four problems which may be experienced by a goat and kid during and immediately after kidding (2marks)
5. What are the advantages of using biogas as a source of power in the farm (2marks)
6. State **FOUR** factors that determine the amount of water on animal drinks (2marks)
7. What is milk let down? (1mark)
8. a) What is an incubator? (1mark)
b) Explain how the incubator should be managed for higher hatchability (2marks)
c) State the features considered during sorting and grading of eggs (2marks)
9. State the advantages of using wind power in the farm (3marks)
10. State **TWO** signs of parturition which are shown by an in-calf cow (1mark)
11. State **FOUR** factors considered when sitting a pigsty in a farm (2marks)
12. Below is a diagram of a farm implement



a) Identify the implement

(1mark)

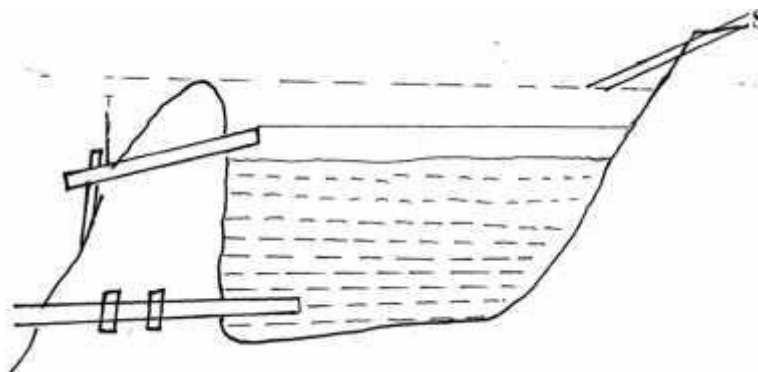
b) Label the parts marked A, B, C, D and E

(2½ marks)

c) State the functions of the parts labeled C, D and E

(1½ marks)

13. Below is a diagram of a cross section of a fishpond



a) Identify the parts labeled T and S

(2marks)

b) Why is the pond floor slanted towards one side?

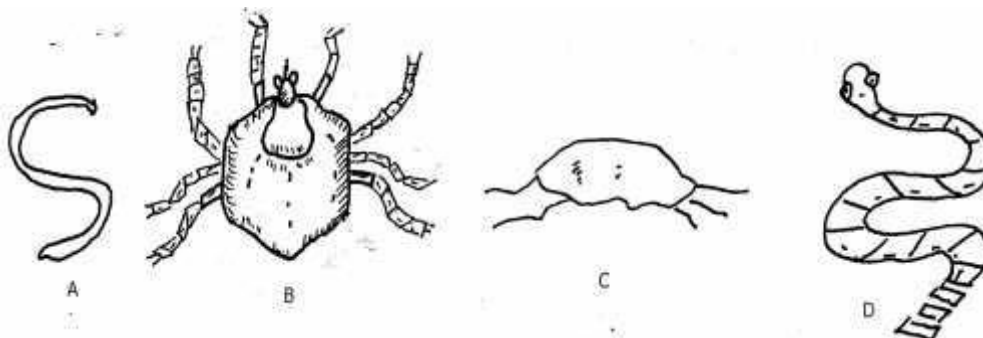
(1mark)

c) State two maintenance practices carried on the structure illustrated above

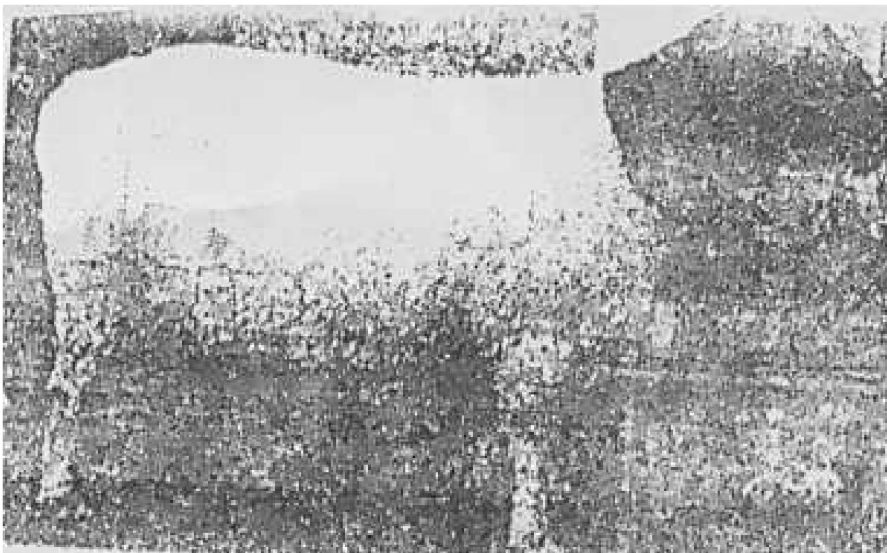
14. Below are photographs of some livestock parasites. Study them carefully and answer

The questions that follow

(2marks)

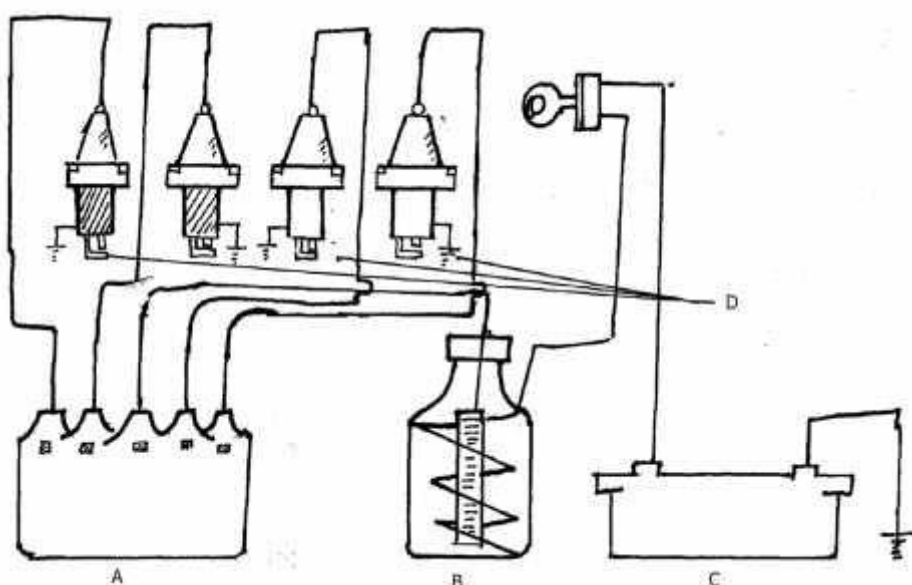


- a) i) Identify the parasites and state where they are found **(4marks)**
 ii) State **TWO** methods of controlling parasites B **(1mark)**
 iii) What are the effects of parasites A in animals **(1mark)**
- b) Below is a photograph of a breed of sheep. Study it carefully and answer the questions that follow



- i) Identify the breed **(1mark)**
 ii) The above breed is a cross between two sheep breeds. Name them **(1mark)**
 c) Using Pearson's square method, compute a 100kg ration with 20% DCP from oats which contain 10% DCP and Simsim seed cake containing 60% DCP. (show your working) **(4marks)**

15. Study the diagram below of the ignition system of a petrol engine and answer the questions that follow



- a) Identify the parts labeled A, B, C and D **(2marks)**
 b) Give the functions of parts A and B **(1mark)**

SECTION C (40 MARKS)

Answer any two questions in this Section in the spaces provided.

- 16.a)** State and explain five factors that influence the siting of farm structures **(10marks)**
- b)** Outline FIVE advantages of fences in a farm **(5marks)**
- c)** Outline five methods of reinforcing fences to make them stronger **(5marks)**
- 17.a)** Explain the management practices that a farmer could carry out to improve milk production in a low yielding dairy cow **(10marks)**
- b)** Discuss Bee management under the following subheadings;
- i)** Locating of the Bee hive **(3marks)**
- ii)** Pests and diseases **(4marks)**
- iii)** Outline **FOUR** factors that determine the quality of honey **(3marks)**
- 18.a)** Describe the maintenance practices needed in a tractor battery **(7marks)**
- b)** Describe the power transmission system under the following units
- i)** Clutch assembly **(2marks)**
- ii)** Gear box **(2marks)**
- iii)** Differential **(2marks)**
- iv)** Final drive **(2marks)**
- c)** Describe the daily maintenance in servicing of a tractor **(5marks)**

NAME.....ADM NO.....

SCHOOL.....CLASS.....

DATE.....

AGRICULTURE MOCKS

SERIES 1 TRIAL 6 PAPER 1

Kenya Certificate of Secondary Exams

TIME:2HRS 30 MINS

SECTION A (30 MARKS)

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

- 1.State four limitations of pastoral farming. (2 mks)
- 2.Give four benefits of timely planting of crops. (2mks)
- 3.State 4 factors of soil which influence productivity of crops. (2 mks)
- 4.Give 4 conditions of land that would make it necessary to carry out reclamation practices (2 mks)
- 5.State 2 factors that influence the qquantity of water used in the farm (1 mk)
- 6.State 4 reasons for keeping health records. (2 mks)
- 7.Give 2 types of inventory records. (1 mk)
- 8.Name 2 situations in which opportunity cost does not exist (1 mk)
- 9.State 3 ways in which flooded water is important in the growing of paddy rice (1 ½ mks)
10. State 4 ways of maintaining a healthy and high yield grass pasture after planting(2 mks)
11. Give three factors considered while determing the size of a silo (1½mks)
12. Give two ways in which overheating can be avoided during silage making (1 mk)
13. State 4 factors that will determine the depth of ploughing a maize field using tractor drawn implements (2 mks)
14. Give 4 ways in which cover crops help in soil and water conservation (2 mks)
15. List 5 biotic factors that affect livestock negatively (2½mks)
16. State 3 characteristics of soil that are influenced by its texture (1½mks)
17. Distinguish between contact and systemic herbicide (2 mks)
- 18.Give two reasons why phosphatic are applied at planting time

SECTION B: (20 MARKS)

Answer all the questions

The diagram below shows a practice in crop production

(1 mk)



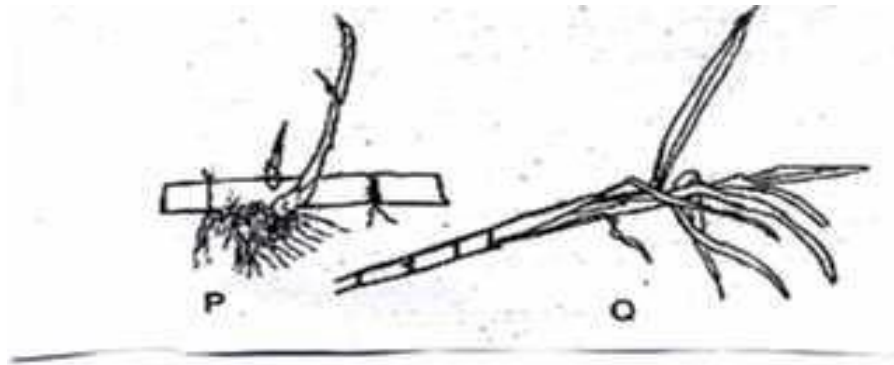
a) i) Give the identity of the field management practice illustrated above (½mks)

ii) Give 2 reasons for carrying out the above field management practice (2 mks)

b) A plot measuring 4m x 3m was prepared for planting cabbages at a spacing of 60 cm x 60 cm. Calculate the plant population in the plot (1½mks)

show your workin

20.a) Identify the illustration P and Q which are materials used in propagation of sugarcane



b) Giving reasons which of the above is more suitable as a planting material in sugar cane? (2 marks)

c) How is planting material in sugarcane treated to control ratoon stunted disease (1 mark)

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

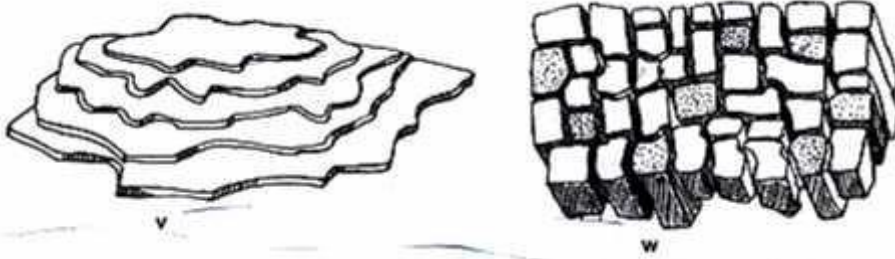


a) Name the pruning systems illustrated by diagrams H and J (1 mark)

b) Give two advantages of pruning system illustrated by diagram H over that one illustrated by diagram J (2 marks)

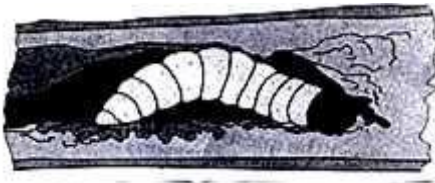
c) Name two types of pruning that should be carried out after the coffee bush has been established using the system J (2 marks)

22. The diagrams V and W illustrate some soil structures. Study the diagrams and answer the questions that follow



- Identify two structures labeled V and W (1mark)
- Name the types of soils from which structures labeled V and W can be found (1mark)
- State two ways through which structure V may influence crop production (2 marks)

23. The diagram below shows a maize stalk infested by a certain pest. Study it and answer the questions that follow.



- Identify the pest (1/2mark)
- Give two types of damages caused to crops by the above pest (2 marks)
- Other than maize name one other crop attacked by pest (1/2mark)

SECTION C : (40 MARKS)

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

- Describe the field production of tomatoes under the following subheadings
 - Field management practices (7 marks)
 - Grading of tomato fruits (3 marks)
 - Explain five factors considered when designing a crop rotation programme (10 marks)
- Explain ten factors that influence soil erosion (10 marks)
 - Describe six benefits of land consolidation (6 marks)
 - Explain four main objectives of establishing the early African settlement schemes (4 marks)
- Explain the difference between stocking rate and carrying capacity (2 marks)
 - Discuss the advantages of rotational grazing system (5 marks)
 - Describe the precautions when harvesting coffee (3 marks)

b) i) Explain harmful effects of weeds in the main field

(5 marks)

ii) Discuss the cultural methods of controlling crop diseases

(5 marks)

NAME.....ADM NO.....

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AGRICULTURE MOCKS

SERIES 1 TRIAL 6 PAPER 2

Kenya Certificate of Secondary Exams

TIME:2HRS 30 MINS

SECTION A (30 MARKS)

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

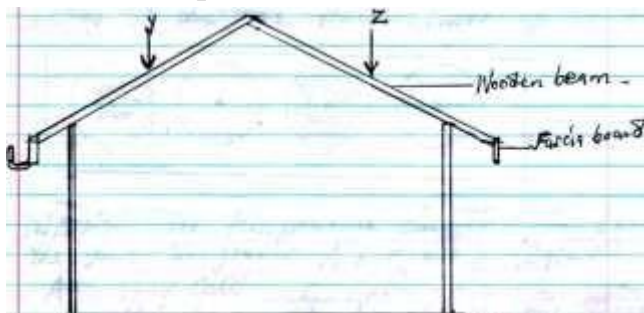
1. Name a breed of goats that has long hair . [0.5mks.]
2. Give three factors that should be considered when sitting a bee-hive in the farm [1.5marks]
3. State four management practices that would ensure maximum harvest of fish in a fish pond [2marks]
4. Give two reasons why walls of dairy sheds should be white –washed instead of painted with water or oil paint. [1mark]
5. What is the intermediate host for liver fluke. [0.5mks.]
6. What is the duration of estrus cycle in a cow? [0.5mks.]
7. If a dairy cow was noticed to be showing first signs of heat at 6.00am.What time should she be inseminated? [1mark]
- 8.Give four factors that determine the amount of water required by an animal.[2marks]
- 9.Name three holding tools and equipment . [1.5marks]
10. Give three functions of a combination squire . [1.5marks]
11. State three functions of the differential in a tractors power transmission. [1.5mks]
12. State three factors that contribute to a high working efficiency of a disc harrow. [1.5marks]
13. List three products obtained from dromedary camel. [1.5marks]

14. If the records showed that a rabbit doe was served on 27th September 2014 what date did she give birth/kindle? [0.5marks]
15. Give two signs that would show that a rabbit doe is about to parturate . [1mk.]
16. Under what conditions would it be necessary to use a file to smoothen a piece of wood instead of using a smoothing plane? [0.5marks]
17. What is the use of a plumb-bob ? [0.5marks]
18. State four characteristics of a corriedale sheep breed. [2marks]
19. State any two disadvantages that may arise from inbreeding in livestock production. [1mark]
20. Name four cattle diseases caused by bacteria. [2marks]
21. Name any two methods recommended for identifying goats. [1mark]
22. State three field conditions under which a disc plough should be used instead of a mould board plough. [1.5marks]
23. Give three symptoms of milk fever in dairy cattle. [1.5marks]
24. Give four reasons for steaming –up dairy animals. [2marks]

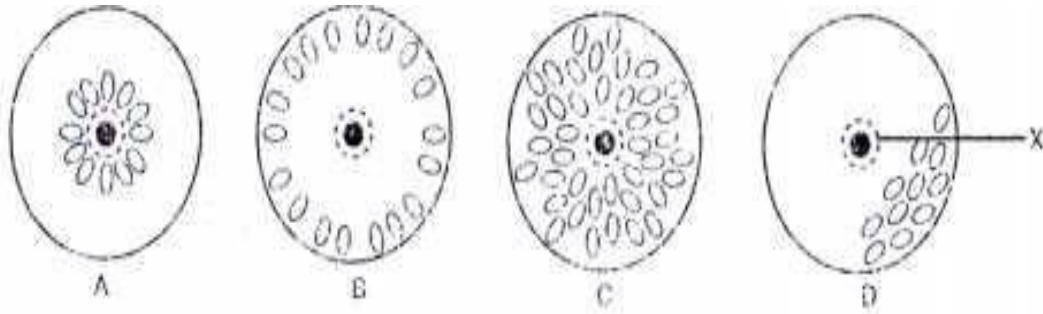
SECTION B [20MARKS]

Answer all questions in this section in the spaces provided .

25. The drawing below shows the cross-section of a house under construction. Study it carefully and answer questions that follow .
25. The drawing below shows the cross-section of a house under construction. Study it carefully and answer questions that follow .



- [a] Assuming that the wooden beams are strong enough to hold the roof load .What is the most likely thing to happen when the roof load exerted presses at point Y and Z . [1mark]
- [b] On the diagram provided draw and label two constructional features you would add to this structure in order to make it more efficient. [2marks]
- [c] State two importance of the fascia board in the farm building.
26. The following illustration show the behavior of chicks at different temperatures of the brooder. [2marks]

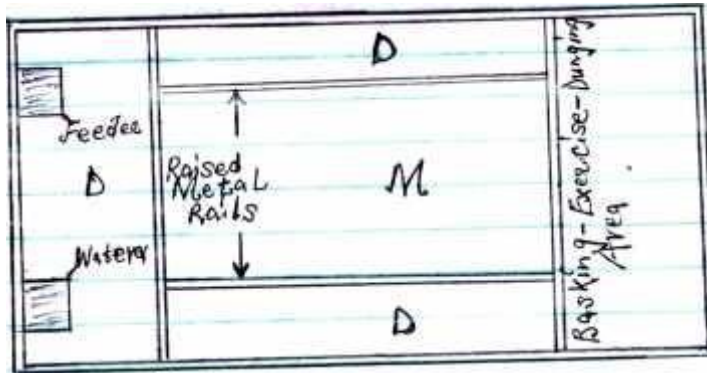


a) Explain the temperature conditions in each of the four diagrams A ,B ,C ,and D. [2marks]

b) Give one method of assessing temperature in the brooder. [1mark]

c) Name two other behavioral observations on chicks when temperature is very high in the brooder. [2marks]

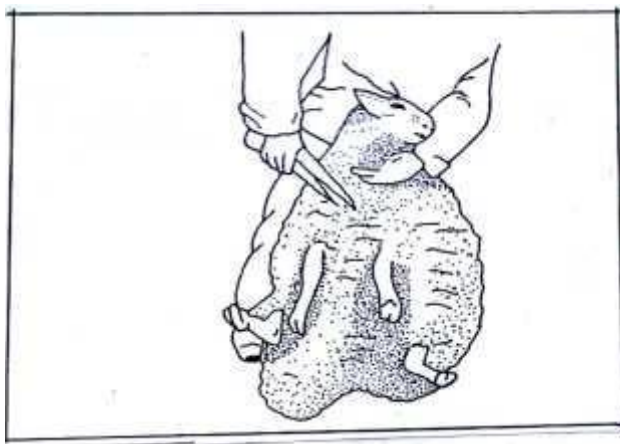
27. The illustration below shows a pig farrowing pen .Study it and answer questions that follow.



[a] What is the use of the raised metal rails. [1mark]

[b] Give two uses for the parts labeled D [2marks]

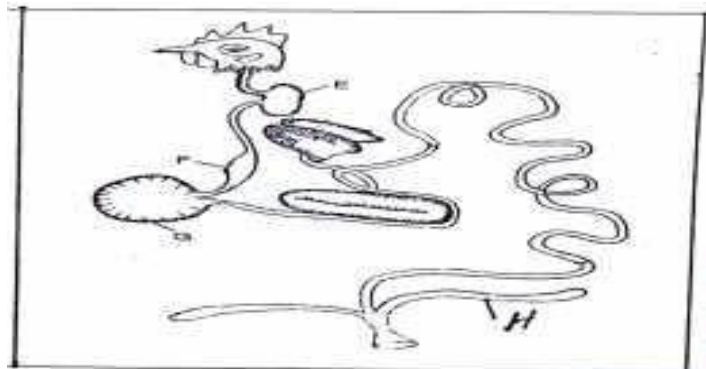
28. Below is an illustration representing a practice carried out in sheep. Study it and answer questions that follow.



[a] Identify the practice illustrated above. [1mark]

[b] State three precautions taken when carrying out the above practice.

29. Study the illustration below of a poultry digestive system and answer questions that follow. [3marks]



- [a] Give two functions of part E. [2marks]
 [b] State one function of part H. [1mark]

SECTION C [40MARKS]

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

- 30.[a] Describe ten factors that are considered during the selection of a breeding stock. [10marks]
 [b] Describe five effects of parasites on livestock. [5marks]
 [c] Describe the mechanical control measures of ticks. [5marks]
- 31.[a] Outline five reasons why bees swarm away. [5marks]
 [b] Discuss the preparations and practices that should be carried out on a pregnant sow 10 days before she far rows. [5marks]
 [c] Describe Gumboro disease under the following sub headings.
 Causal organism [1mark]
 Livestock attacked [1mark]
 Symptoms of the disease [6marks]
 Control measures [2marks]
- 32.[a] Explain five advantages of animal draught power. [5marks]
 [b] Discuss the importance of lubrication system in a tractor. [4marks]
 [c] Explain six factors considered when selecting construction materials for farm structures. [6marks]
 [d] Give five qualities of a good calf pen. [5marks]

NAME.....ADM NO.....

SCHOOL.....CLASS.....

DATE.....

AGRICULTURE MOCKS

SERIES 1 TRIAL 7 PAPER 1

Kenya Certificate of Secondary Exams

TIME:2HRS 30 MINS

SECTION A (30 MARKS)

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

1. Differentiate between olericulture and pomoculture as used in crop production. (1 mk)
2. State **four** advantages of drip irrigation. (2 mks)
3. State **four** advantages of adding organic manure to a sandy soil. (2 mks)
4. State **four** advantages of applying lime as a measure of improving soil condition.(2 mks)
5. Define the following terms as used in agricultural economics.
 - a) Gross Domestic Product (GDP) (½ mk)
 - b) Per capita income (½ mk)
6. State **four** benefits of budgeting to a farm manager. (2 mks)
7. State **four** activities carried out by Young Farmers Clubs in Kenya. (2 mks)
8. Distinguish between intensive hedgerow and border planting forms of agroforestry. (2 mks)
9. Give **four** reasons why land should be prepared early in readiness for planting. (2 mks)
- 10.State **four** reasons for intercropping. (2 mks)
- 11.Outline **two** conditions under which the opportunity cost is zero in a farming enterprise. (1 mk)
- 12.List **four** types of financial books a farmer should keep. (2 mks)
- 13.a) State **two** reasons for treating water before use in a farm. (1 mk)
 - b) Give **two** methods of storing water in a farm. (1 mk)
- 14.a) List **four** disadvantages of communal land tenure system. (2 mks)
 - b) Outline **four** aspects of rainfall that affect agricultural production. (2 mks)
- 15.a) State **four** human factors that affect agriculture. (2 mks)

b) State **two** characteristics of a good root stock for grafting.

(1 mk)

SECTION B (20 MARKS)

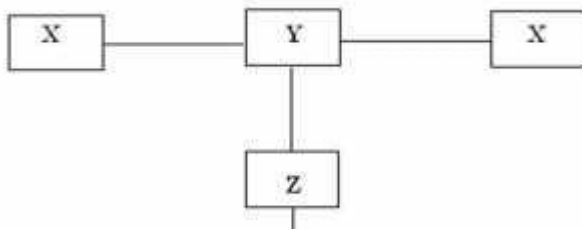
16. The transaction below shows Mr. Maginga's financial position in his farm business for the year 2004

| | |
|---------------------------|----------------|
| Purchase of pesticides | Kshs 3,000 |
| Milk sales | Kshs 8,000 |
| Sale of goats | Kshs 5,000 |
| Closing valuation | Kshs 16,000 |
| Interest payable | Kshs 1,750 |
| Veterinary bills | Kshs 1,400 |
| Opening valuation | Kshs 12,000 |
| Wages | Kshs 10,000 |
| Depreciation of machinery | Kshs 3,000 |
| Sale of one heifer | Kshs 1,000 |

Prepare a profit and loss account for Mr. Maginga's farm.

(5 mks)

17. The diagram below illustrates a method of preparing compost pit manure, study the diagrams and answer the questions that follow.



a) Identify the method illustrated

(1 mk)

b) By using arrows between the boxes indicate the direction of movement of materials from X to the field.

(2 mks)

c) i) In regard to Y what is the volume of X?

(1 mk)

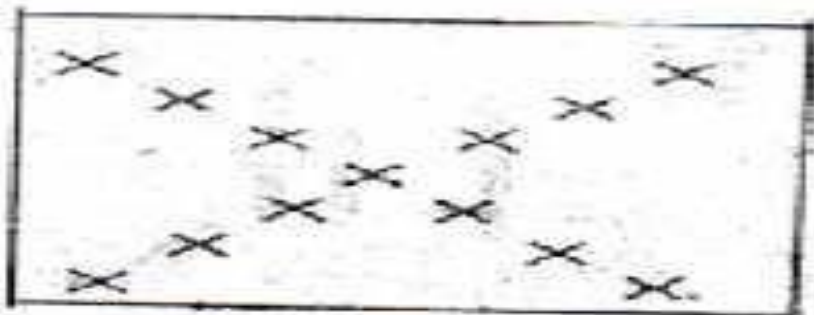
ii) How long should the materials stay in X and Y.

(1 mk)

18. The diagram below illustrates an arable field crop. Carefully study the diagram and answer the questions that follow.



- a) Identify the field crop. (1 mk)
 - b) Name **two** common diseases that affect parts F and G. (2 mks)
 - c) List **four** cultural methods of controlling the diseases named in (b) above. (2 mks)
19. The diagram below shows a method of soil sampling.



- a) Identify the method. (1 mk)
- b) Mention **four** areas to avoid when sampling soil. (2 mks)
- c) Give **two** reasons for soil testing. (2 mks)

SECTION C (40 MARKS)

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

20. Describe various measures that can be carried out in a crop field to control crop diseases. (20 mks)
21. a) Explain the soil conservation measures that can be used to conserve soil on a sloping farmland (8 mks)
 b) Explain any **six** factors considered when spacing crops. (12 mks)
22. Describe the establishment of cabbage under the following subheadings. (8 mks)
 a) Nursery establishment and management

b) Land preparation

(4 mks)

c) Transplanting

(8 mks)

NAME.....ADM NO.....

SCHOOL.....CLASS.....

DATE.....

AGRICULTURE MOCKS

SERIES 1 TRIAL 7 PAPER 2

Kenya Certificate of Secondary Exams

TIME:2HRS 30 MINS

SECTION A (30 MARKS)

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

1. Name **four** breeds of dairy goats

Name **one** intermediate host for each of the following livestock parasites.

(2 mks)

a)Liverfluke (Fasciola Spp)

(1 mks)

b)Tapeworm (Taenia Saginata)

(1mk)

3.Name **four** systems of a tractor engine.

(2 mks)

4.Give **four** reasons for feeding a lamb on colostrum.

(2 mks)

5.Give **two** causes of scouring in calves.

(1 mk)

6.Outline **four** limitations of using hydroelectric power on the farm.

(2 mks)

7.Give **four** main causes of livestock diseases.

(2 mks)

8.State **four** factors that would determine maintenance ration in livestock production.

(2 mks)

9.Give **two** uses of foot bath in a plunge dip.

(1 mk)

10. Give **two** reasons why dehorning is done in livestock.

(1 mk)

11. Name the tool used together with each of the following tools.

a) Canula -

b)Wood chisel -

(1 mk)

12. State **four** non-chemical ways of controlling ticks

(2 mks)

13. List **four** qualities considered when selecting eggs for incubation.

(2 mks)

14. Mention **three** purposes of branding in cattle

(1½ mks)

15. Differentiate between crutching and ringing in livestock management.

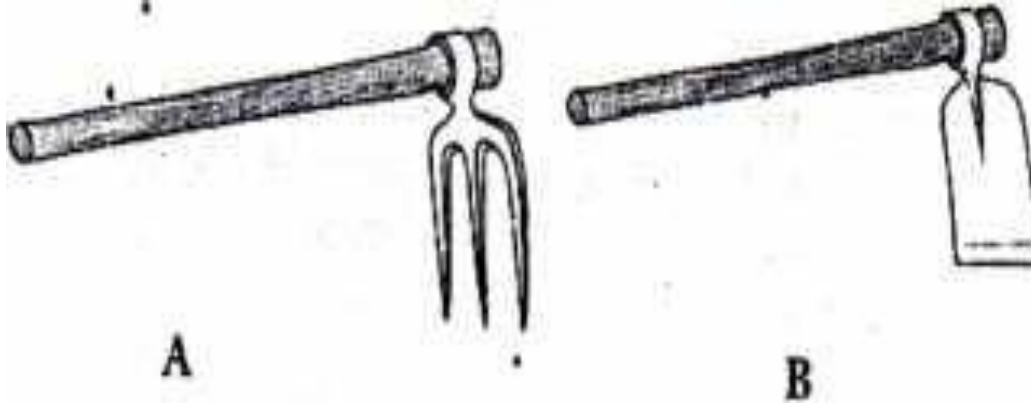
(1 mk)

16. Name **three** methods used in selection of livestock. (1½ mks)
17. State **two** reasons for including roughage in the ration of non-ruminant. (1 mk)
18. Give **four** signs of heat in a rabbit. (2 mks)
19. List **two** material used in construction of a green house. (2 mks)

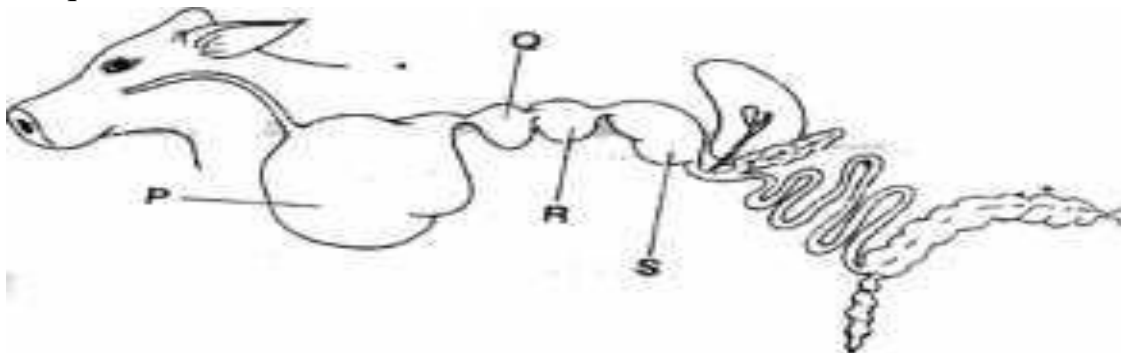
SECTION B (20 MARKS)

Answer all questions in this section in the spaces provided.

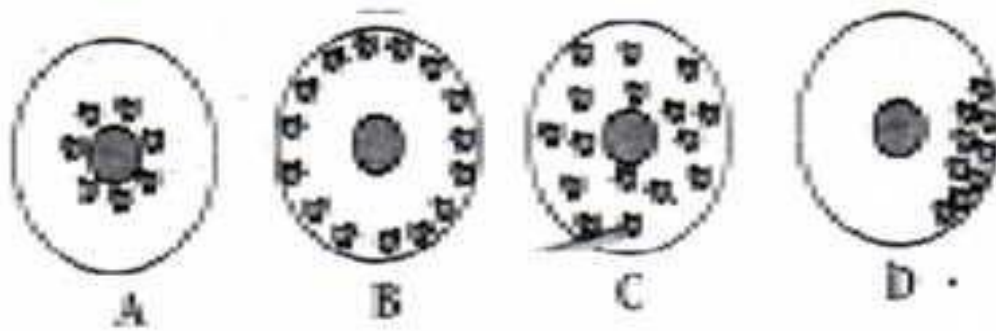
Study the diagrams below and answer the questions that follow. (1 mk)



- a) Identify tool A and B (2 mks)
- b) Under what conditions would you require to use tool A rather than tool B. (2 mks)
- c) State **two** maintenance practices for the above tools. (2 mks)
21. Study the diagram of the digestive system of a farm animal shown below and answer the questions that follow.



- a) Name the parts labelled **P, Q, R** and **S**. (2 mks)
- b) State the function of the part labelled **R**. (1 mk)
- c) Give **two** reasons why livestock with the above parts are able to digest cellulose food material. (2 mks)
- d) In which parts labelled **P, Q, R** and **S** would a nylon paper be found if fed on by an animal with the above digestive system?
22. The following illustrations show the behaviour of chicks at different temperatures in a brooder. (1 mk)



- a) Explain the temperature conditions in each of the above diagrams: A, B, C and D. (4 mks)
 b) State any **four** requirements of a good brooder.

SECTION C (40 MKS)

Answer any two questions from this section

23. a) Differentiate between stress and vice in chicken (4 mks)
 b) How would a farmer control stress and vice in poultry. (2 mks)
 c) Describe the procedure of processing wax from honey combs. (10 mks)
24. a) Explain the types of stores that can be found on a farm. (8 mks)
 b) Explain **three** routine livestock feeding practices carried out when rearing livestock. (6 mks)
 c) Describe **four** advantages and **four** disadvantages of using animal power in the farm. (8 mks)
25. Discuss the factors to consider when selecting a breeding stock. (20 mks)

NAME.....ADM NO.....

SCHOOL.....CLASS.....

DATE.....

AGRICULTURE MOCKS

SERIES 1 TRIAL 8 PAPER 1

Kenya Certificate of Secondary Exams

TIME:2HRS 30 MINS

SECTION A (30 MARKS)

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

1. State **three** properties of soil that are influenced by its texture (1 ½ mks)
2. Give **two** ways in which pastures are classified (1mk)
3. Suppose a farmer has to apply 30kg of P2 O5 per hectare and he had the fertilizer labelled 21:15:60 at this disposal, calculate the amount of P2 O5 he will require for two hectare of land (2mks)
- 4.State **two** main causes of silage loses (1mk)
- 5.Give the element whose deficiency in plants is plants is characterised by the following
 - (a) Interveinal chlorosis of the leaves (½ mk)
 - (i) Blossom end rot in tomatoes (½mk)
 - (ii) Scorched edges of a leaf (½ mk)
- 6.State **four** characteristics of intensive farming (2mks)
- 7.Name **four** books of account kept by a farmer (2mks)
- 8.State **two** importance of flooding water in the field of growing rice (1mk)
- 9.List **four** reasons for using certified planting materials (2mks)
10. State **four** aims of land settlement programmes in Kenya (2mks)
11. State **two** causes of forking in carrots (1mk)
12. State **four** disadvantages of using herbicides (2mks)
13. Name **two** common diseases of cabbages (1mk)
14. State **two** methods used in frame formation in tea production (2mks)
15. State **four** factors that influence mass wasting as a type of soil movement (2mks)
16. State **two** importance of living organisms in soil (1mk)
17. State **four** ways in which trees help in land reclamation (2mks)

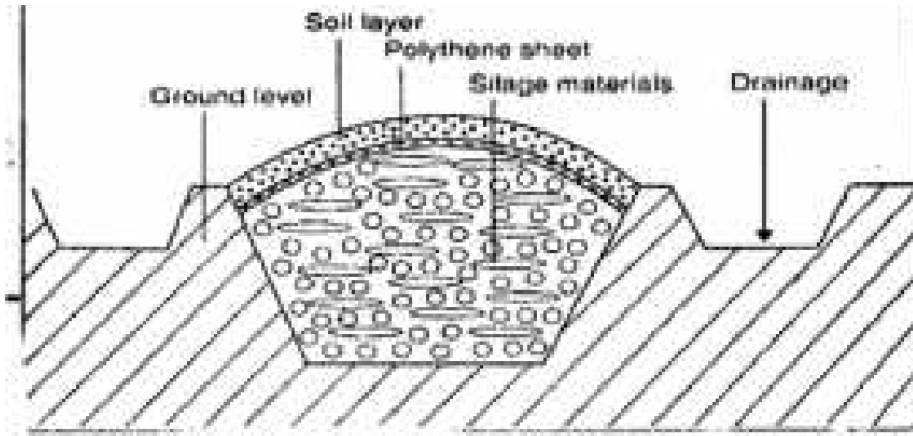
18. State **four** factors that determine crop population in maize field (2mks)

19. State **four** agricultural services available to a crop farmer (4mks)

SECTION B (20 MKS)

Answer all questions in this section in the spaces provided

20. The diagram below show a method of forage preservation



(a) Identify the structure illustrated above. (1mk)

(b) Give the role of each of the following in the above structure

(a) Polythene sheets . (1/2 mk)

(b) Drainage (1/2 mk)

(c) State **two** other methods of forage conservation

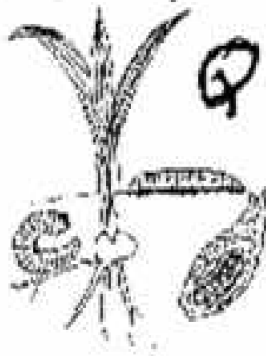
21. The following accounts of information is from Mr. Browns farm for the year ended 31/12/2013

| | | |
|-------------------|------------|--------|
| Opening Valuation | Kshs. 6000 | (2mks) |
| Paid Wages | Kshs. 5000 | |
| Bought equipments | Kshs. 4000 | |
| Sold mature pigs | Kshs. 7000 | |
| Bought drugs | Kshs. 3200 | |
| Sold maize | Kshs. 3000 | |
| Closing valuation | Kshs. 4000 | |

(i) Using the information above, prepare a profit and loss account for Mr. Brown's farm From the calculation in (4mks)

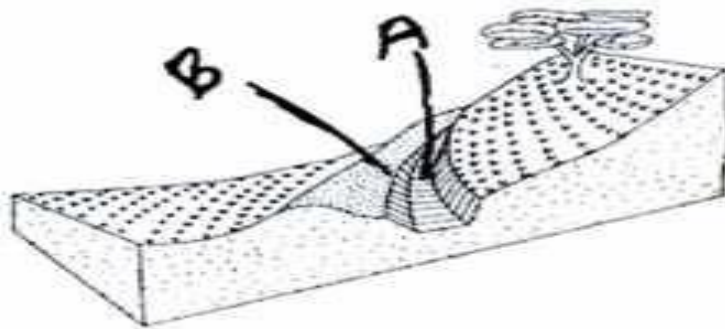
(i) above, state whether Mr. Brown made profit or loss

22. The diagrams **P, Q, R** represents some crop pests, study them (1mk)



- (a) Identify the pests **P** and **Q** (1mark)
 (b) Give the damage caused by pests **P** in maize production (1mk)
 (c) State **two** control measures of pests **R** (2mks)

23. The illustration below shows a certain structure used in soil and water conservation, use it to answer the questions below



- (a) Identify the structure (1mk)
 (b) Name the parts of the structure labelled A and B (1mk)
 (c) State other **two** physical structural methods used in soil and water conservation (2mks)

24. The diagram below illustrates some weeds. Study them and answer the questions that follows



- (a) Identify the weeds (1mk)
 (b) On the basis of plant morphology, classify the weed labelled L (1mk)
 (c) Give **two** harmful effects of the weed labelled M (2mks)

SECTION C (40marks)

Answer any two questions in the spaces provided

- 25 (a)** Describe the advantages of mixed grass -legume pasture over a pure grass pasture (5mks)
- (b) Describe factors that should be considered when deciding on the crop to grow (10mks)
- (c) Outline **five** advantages of using seeds for crop propagation (5mks)
- 26 (a)** State **four** disadvantages that a farmer experience when they use synthetic type of mulches (4mks)
- (b) Explain the different physical methods used in crop pest control (16mks)
- 27 (a)** Outline the role of phosphorous in plants (5mks)
- (b) Describe the policies used by the government to regulate the amount of imported agricultural good in Kenya (5mks)
- c) Describe uses of farm records in the farm (10 mks)

NAME.....ADM NO.....

SCHOOL.....CLASS.....

DATE.....

AGRICULTURE MOCKS

SERIES 1 TRIAL 8 PAPER 2

Kenya Certificate of Secondary Exams

TIME:2HRS 30 MINS

SECTION A (30 MARKS)

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

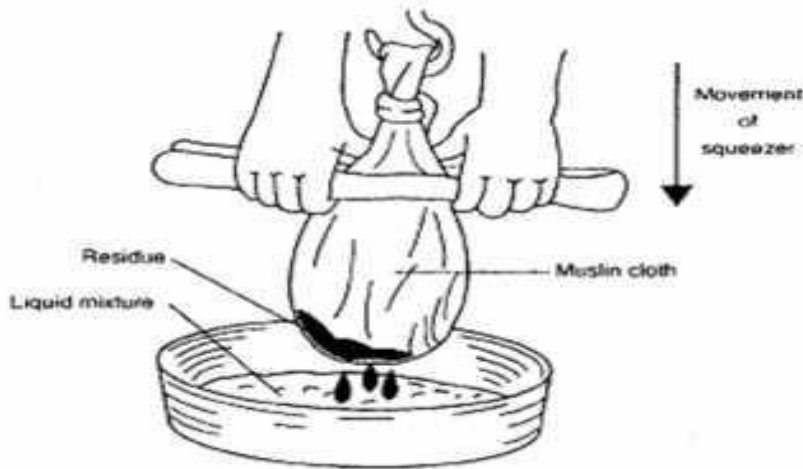
- 1.Name **three** methods of selecting livestock (1½ mk)
- 2.State **four** structural requirements if a calf pen (2mks)
- 3.State **four** practices that farmer should carry out to reduce egg eating in poultry (2mks)
4. State **three** mechanical methods of controlling ticks (1½mks)
5. Give **two** physical characteristics of saddle back breed of pigs (1mk)
6. List **two** uses of clutch in a tractor (2mks)
7. State **four** predisposing factors of scours in calves (2mks)
8. State **four** demerits of live fences (2mks)
9. State **four** qualities of good creep feed (2mks)
10. Give **three** methods of treating timber for building construction (1½ mks)
11. State **three** qualities of good livestock ration (1½ mks)
12. List **two** sources of farm power that are environmental friendly (1mk)
13. State **four** factors that would contribute to depreciation of farm tools and equipments (2mks)
14. State **four** practices carried out on the fish before preservation (2mks)
15. State **four** methods of maintaining good health in livestock (2mks)
16. State **four** causes of stress in flock of birds (2mks)
17. What is meant by dry cow therapy as used in agriculture (1mk)
- 18.Distinguish between pen mating and flock mating in poultry management

SECTION B (20 MKS)

Answer all questions in this section in the spaces provided

Study the diagram below and answer the questions that follow

(2mks)



(a) Identify the method illustrated above

(1mk)

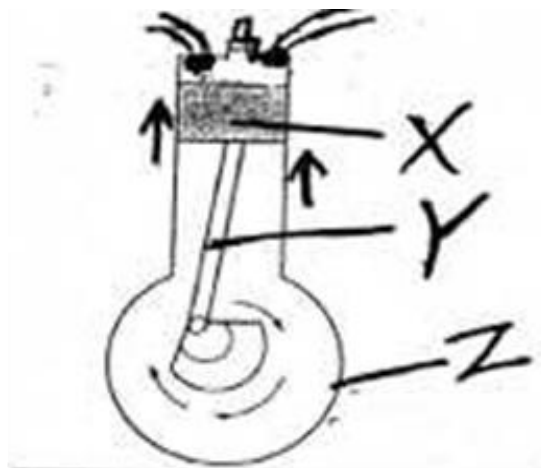
(b) Name **two** alternative methods of obtaining the product other than the one illustrated above

(1mk)

(c) State **two** factors that determine the quality of the product given in the above illustration

(2mks)

20. Below is a diagram showing one of the stroke in a tractor engine . Use it to answer the questions that follow



(a) Identify the stroke ...

(1/2 mk)

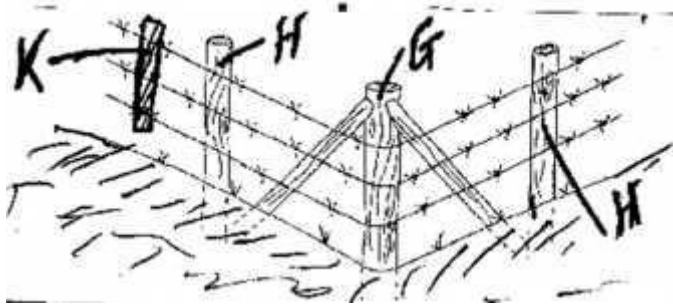
(b). Name the parts labelled

(1 1/2 mk)

(c) Briefly describe the stroke in (a) above

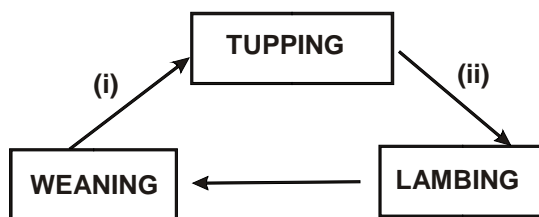
21. Below is a diagram of farm structure .Study it and answer the questions that follow

(2mks)



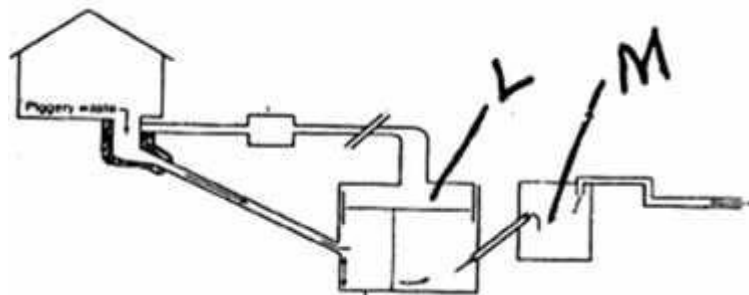
- (a) Identify the structure illustrated above. (1½ mk)
- (b) Name the parts labelled G, H & K
- (c) State **two** maintenance practices carried out on the farm structure above (2mks)

22. Below is a breeding cycle of a ewe in relation to its feeding use it to answer the questions that follow



- (a) Which practices are shown by: -
- (b) State **two** importance of practice (ii) above (2mks)

23 Study the diagram below of a biogas plant and answer the questions that follow



- (a) Name the main component of biogas that is trapped in part L (1mk)
- (b) Give the name and use of the materials deposited in part labelled M (1mk)
- (c) State **two** uses of Biogas on the farm

SECTION C (40 MARKS)

Answer **Two** questions in this section in the spaces provided (2mks)

24. (a) State **five** reasons for keeping livestock healthy
- (b) Describe Newcastle disease under the following subheading (5mks)
- (i) Casual organism (1mk)
- (ii) Signs of attack (7mks)
- (iii) Control measures (2mks)

- (c) Describe **five** microbial activities that take place in the rumen of ruminant animals. (5mks)
25. (a) Outline **five** advantage of artificial insemination (5mks)
- (b) Describe factors that affect digestibility of feed in livestock (5mks)
- (c) Describe the differences between Petrol and diesel engines (10mk)
- 26.a) Give **five** harmful effects of liver flukes in sheep (5mks)
- (b) Describe uses of fences in the farm (10mks)
- (c) State **five** functions of water in farm body of dairy animals (5mks)

NAME.....ADM NO.....

SCHOOL.....CLASS.....

DATE.....

AGRICULTURE MOCKS

SERIES 1 TRIAL 9 PAPER 1

Kenya Certificate of Secondary Exams

TIME:2HRS 30 MINS

SECTION A (30 MARKS)

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

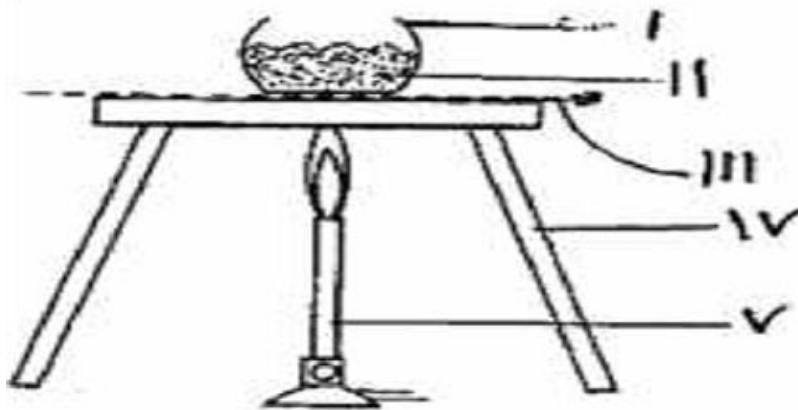
- 1.What is agroforestry? (1 mark)
- 2.Give **two** roles of agriculture in industrial growth. (1 mark)
- 3.Differentiate between intercropping and mixed cropping. (1 mark)
- 4.Name **four** financial documents used in the farm. (2 marks)
- 5.Give **four** types of micro catchments used in the farm. (2 marks)
- 6.State **four** sources of soil acidity. (2 marks)
- 7.State **two** advantages of carrying out pruning in banana production. (1 mark)
- 8.Given that a price of Ksh.100 per bag, 20 bags of maize are demanded, but when the price change bag, 22 bags are demanded. Calculate the elasticity of demand. (1/2 mark)
- 9.In maize hybrid 614 what do the following figures stand for?
 - (i) 6
 - (ii)1
 - (iii)4 (1 mark)
10. Give **two** ways in which pastures are classified. (1 mark)
11. State **four** properties of soil influenced by its texture. (2 marks)
12. Explain the meaning of the following terms as used in agricultural economics.
 - (i) Production function.
 - (ii) Equimarginal returns (1 mark)
13. Name **four** practices carried out to improve and maintain permanent pasture. (2 marks)
14. List **two** features of plastic pipes a farmer should consider before buying. (1 mark)
15. Give **four** advantages of tissue culture. (2 marks)
16. Give **three** stages of controlling devils horsewhip by mechanical means.(1½ marks)

17. State **four** functions involved on marketing of cabbages. (2 marks)
18. A farmer was advised to apply 40kg, P_2O_5 per hectare of maize at planting time. The phosphatic fertilizer available was single superphosphate containing 20% P_2O_5 .
(i) Calculate how much single superphosphate fertilizer she should apply in two hectares (2 marks)
19. State **three** situation when the opportunity cost is zero. (1½ marks)
20. State **four** steps of gulley formation. (2 marks)
21. Define what a partial budget. (½ mark)

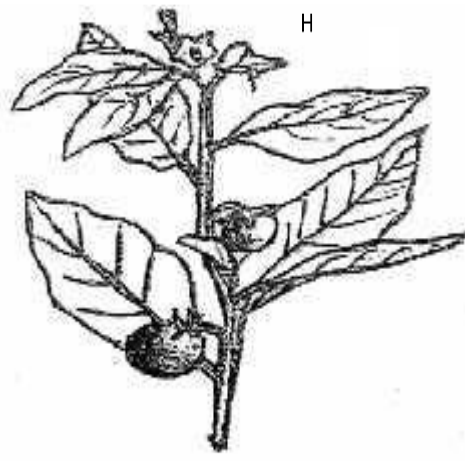
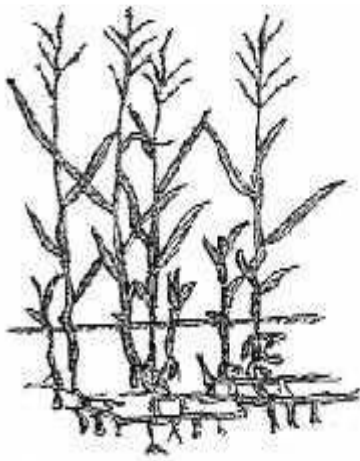
SECTION B: (20 MARKS)

Answer all questions in this section in the spaces provided.

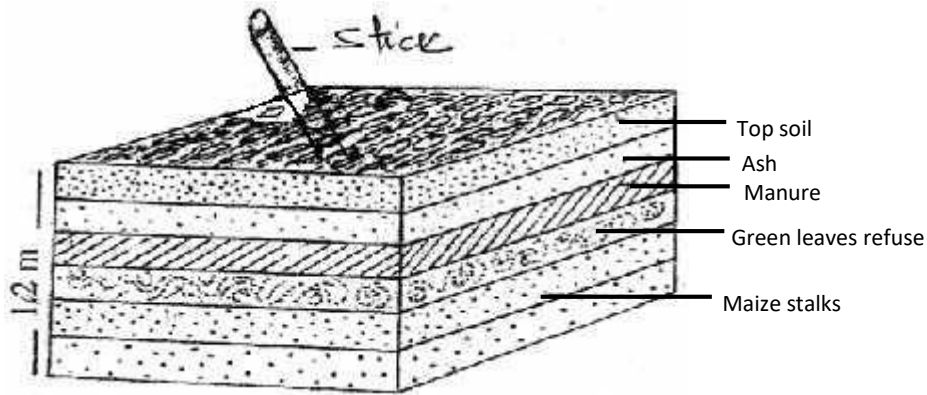
22. The diagram below shows a set up of apparatus for finding the percentage of humus contents in a soil by ignition.



- (a) Label the apparatus. (2 marks)
- (b) Outline the steps followed in carrying out the illustrated experiment.
23. The following symptoms were noted on tomato seedlings in a farm.
(a) Stem cankers on seedlings.
(b) Spots on the seedling leaves.
Defoliation and falling of leaves. (3 marks)
- (i) Name the disease affecting the crops. (1 mark)
- (ii) State a cause of the disease. (1 mark)
- (iii) State **three** control measures for the disease. (3 marks)



- 24.
- (i) Identify the weeds. (2 marks)
- (ii) State the economic importance of the weed shown in diagram G. (2 marks)
- (iii) Why is it difficult to control weed in diagram G? (1 mark)
25. The diagram below shows preparation of organic manure. (1 mark)



- (a) Which type of organic manure is being prepared above? (1 mark)
- (b) Give the importance of inclusion of the following layers. (4 marks)
- (i) Ash
- (ii) Topsoil
- (iii) Manure
- (iv) A stick

SECTION C: (40 MARKS)

Answer any two questions from the section.

- 26.(a) Describe five objectives of agricultural research in Kenya. (10 marks)
- (b) Describe ten cultural methods used to control pest. (10 marks)
- 27.(a) (i) What is open valuation? (2 marks)
- (ii) What is closing valuation? (2 marks)
- (iii) When is profit and loss account prepared? (1 mark)
- (b) Prepare a profit and loss account ending 31st Dec, 2003 using the following information. The farm made the following transactions. Purchased items listed below. (10 marks)
- | Items | Kshs. |
|-------|-------|
|-------|-------|

| | |
|----------------------|-------|
| Seed and fertilizer | 3600 |
| Fuel worth | 3400 |
| Livestock feeds | 3000 |
| Machinery implements | 60000 |

The farm also expected the following:-

Kshs.5400 for vegetables sold to a neighbour school; Kshs.20,000 for beans sold, Kshs.10,000 for milk delivered to K.C.C. Kshs.46000 for coffee sold to local cooperative society. The farms opening valuation was Kshs. 80,000 and the closing valuation was Kshs.120,000.

- (i) Did the farm make a profit or loss? **(1 mark)**
- (ii) How much profit or loss did the farm make? **(2 marks)**
- (iii) Calculate the percentage profit of loss made. **(2 marks)**
- 28. (a) Discuss the human factors which influence agriculture. (10 marks)**
- (b) Explain five factors to consider when choosing the planting time. (10 marks)**

NAME.....ADM NO.....

SCHOOL.....CLASS.....

DATE.....

AGRICULTURE MOCKS

SERIES 1 TRIAL 9 PAPER 2

Kenya Certificate of Secondary Exams

TIME:2HRS 30 MINS

SECTION A (30 MARKS)

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

1. Define the following terms as used in Agriculture.

(i) Brooding in poultry. (1 mark)

(ii) Flushing. (1 mark)

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

3. What is compression ratio? (½ mark)

4. Dorper breed of sheep breed was developed from two breed. Name them. (1 mark)

5. State **four** physiological parameters that can be used as indicators of ill health in livestock. (2 marks)

6. Outline **four** factors that should be considered when siting farm building and structures.

State the predisposing factors of the following livestock disease. (2 marks)

(a) Coccidiosis in poultry. (½ mark)

(b) Gumboro disease in poultry. (½ mark)

8. Name **four** light breeds in poultry. (2 marks)

9. State **four** functions of water in animal's body. (2 marks)

10. Give **three** functions of carburetor in a tractor. (1½ marks)

11. State when it is necessary to use a jembe instead of a plough.

(a) Give an intermediate host for the following internal parasites. (2 marks)

(i) Taenia saginata. (½ mark)

(ii) Taenia solium. (½ mark)

(b) State **four** effects of parasites on host.

13. Define the following terms as used in animal production. (2 marks)

(i) Epistasis. (1 mark)

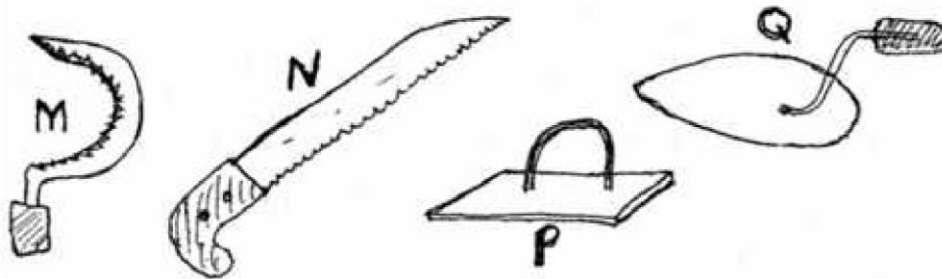
(ii) Heterosis (Hybrid vigour). (1 mark)

14. Give **four** reasons why farm tools should be properly maintained. (2 marks)
15. State **four** advantages of natural calf rearing (2 marks)
16. State **three** importance of seasoning timber. (1½ marks)
17. State **three** functions of an egg shell. (1½ marks)

SECTION B: (20 MARKS)

Answer all questions in this section in the spaces provided.

Diagram M, N, P and Q represent farm tools. (1½ marks)



- (a) Identify the tools. (2 marks)
- (b) Give the use of each of the tools named above. (2 marks)
- (c) State **two** maintenance practices that should be carried out on tool M. (1 mark)
19. A cow was diagnosed with the following symptoms, swollen feet, animal walking with limping gait, lameness and pus with rotten smell oozing out of the hooves and animals spending most time lying down.
- (a) Suggest the disease the animal was suffering from. (½ mark)
- (b) Name the possible cause of the above disease. (½ mark)
- (c) Apart from cattle name other two farm animals attacked by the above disease. (2 marks)
- (d) State **four** control methods of the disease. (2 marks)
- (i) What activity is being carried out? (½ mark)
- (ii) Give **three** activities carried out on the animal before the above operation. (1½ marks)
- (iii) Outline the procedure of carrying out operation. (3 marks)
20. Below is an illustration of a farm operation. Study it carefully and answer the questions that follow.



- (a) (i) What activity is being carried out? (½ mark)
(ii) Give three activities carried out on the animal before the above operation. (1½ marks)
(iii) Outline the procedure of carrying out operation. (3 marks)
- (b) A farmer wanted to prepare 200kg of calf rearing ration containing 20% DCP. Using the Pearson's square method, calculate the amount of maize containing 10% DCP and sunflower containing 35% DCP the farmer would need to prepare the ration. (Show your working). (4 marks)

21. (a) Define the term digestible crude protein. (1 mark)
(b) Describe the advantages of fences. (10 marks)

SECTION C: (40 MARKS)

Answer any two questions from the section.

23. (a) Describe ten general methods of disease control in livestock. (10 marks)
(b) Describe the advantages of fences. (10 marks)
24. (a) Describe the principle of operation of four stroke (four cycle) petrol engine. (8 mark)

b) Describe the rearing of fresh water fish in artificial ponds under the following subheadings.

- (i) Types of fish reared. (2 marks)
(ii) Stocking of the pond. (3 marks)
(iii) Practices done to increase fish yield. (4 marks)
(iv) Cropping of fish. (3 marks)
25. (a) Give ten general characteristics of beef cattle. (10 marks)
(b) Describe the management of deep litter horse. (10 marks)

NAME.....ADM NO.....

SCHOOL.....CLASS.....

DATE.....

AGRICULTURE MOCKS

SERIES 1 TRIAL 10 PAPER 1

Kenya Certificate of Secondary Exams

TIME:2HRS 30 MINS

SECTION A (30 MARKS)

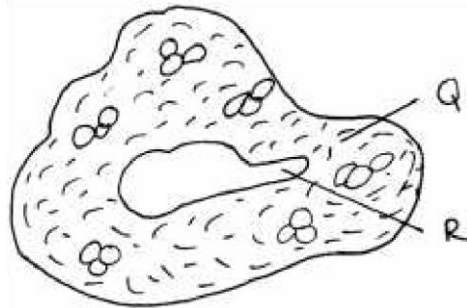
Answer all the questions in this section in the spaces provide.

1. State **four** reasons for practicing agro forestry in Kenya. (2 marks)
2. State **four** disadvantages of organic mulching. (2 marks)
3. (a) What is stooking as used in maize production? (1 mark)
(b) State the importance of stooking. (1 mark)
4. Why is per capita income not a good measure of economic performance of a country? (1 mark)
5. What is the use of a delivery note in farm accounts? (1 mark)
6. State **four** objectives of agricultural research. (2 marks)
7. Outline **four** factors considered when designing a crop rotation programme. (2 marks)
8. Outline **six** advantages of land consolidation. (3 marks)
9. State **four** factors influencing soil erosion. (2 marks)
10. Outline **four** conditions that necessitate irrigation. (2 marks)
11. Name **four** variable inputs in a maize production enterprise. (2 marks)
12. State **six** factors that affect the quality of hay. (3 marks)
13. Outline **two** reasons why a legume should be included when establishing forage crops. (1 mark)
14. State **four** advantages of tillage as a method of weed control. (2 marks)
15. Name **three** environmental factors affecting the effectiveness of herbicide. (3 marks)

SECTION B: (20 MARKS)

Answer all the questions in the spaces provided.

16. Below is an illustration of a soil structure. Study it carefully and answer the questions beneath.

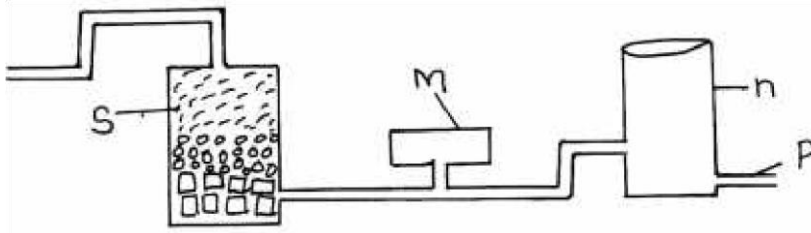


(a) Identify the type of soil structure illustrated above. (½ mark)

(b) Name the parts labeled. (2 marks)

(c) Name **two** areas where the structure is common within the soil profile. (2 marks)

17. The illustration below represents the last stages of a water treatment system. Study it carefully and answer the questions beneath.



(a) Name the parts labelled.

M, n (1 mark)

(b) State one importance of: P, S (2 marks)

(c) Briefly explain what happens to water as it passes through “M”. (2 marks)

18. Study the method of pruning illustration below and answer the questions that follow.



- (a) Identify the method of pruning illustration above. (½ mark)
- (b) Give a reason as to why the management practice is carried out. (1 mark)
- (c) Name **two** crops onto which the practice is applicable. (2 marks)
- (d) Name **two** other methods of pruning field crop. (2 marks)
- 19.(a) State **four** factors considered in choosing the planting time. (2 marks)
- (b) State **two** advantages of early planting. (2 marks)
- (c) State **one** disadvantage of early planting. (1 mark)

SECTION C: (40 MARKS)

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

- 20.(a) Briefly describe the agricultural services available to the farmers. (10 marks)
- (b)(i) What is farm Budgeting. (1 mark)
- (ii) Name **two** types of farm Budget. (1 mark)
- (c) A farmer intends to change his enterprise from livestock production to crop production.

The cost incurred is as follows.

The cost of livestock production includes.

| | | |
|--------------------------|-----------------|-------------|
| <input type="checkbox"/> | Cost of cow | Kshs.15,000 |
| <input type="checkbox"/> | Fencing | Kshs. 3,000 |
| <input type="checkbox"/> | Disease control | Kshs. 1,000 |
| <input type="checkbox"/> | Milk man wager | Kshs. 5,000 |
| <input type="checkbox"/> | Spraying costs | Kshs. 500 |

The cost of crop production includes.

- Land preparation Kshs. 500
- Seeds Kshs. 600 Planting Kshs. 800 Fertilizers Kshs. 1,500
- Disease/pest control Kshs. 1,200
- Harvesting Kshs. 1,100

The revenue from milk sale is Ksh.25,000 and sale of calf Ksh.4,000 while the revenue he gets from sale of crops is Ksh.23,000. Draw up a partial budget and indicate whether the change is worthwhile or not. (8 marks)

- 21.(a) Describe the various methods of drainage. (10 marks)

(b) State and explain **five** factors which influence pesticide efficiency. (10 marks)

22. Discuss the production of nappier grass under the following subheadings.

- (i) Seedbed preparation. (4 marks)
- (ii) Planting (5 marks)
- (iii) Fertilizer application. (3 marks)
- (iv) Weed control. (3 marks)
- (v) Utilization. (5 marks)

NAME.....ADM NO.....

SCHOOL.....CLASS.....

DATE.....

AGRICULTURE MOCKS

SERIES 1 TRIAL 10 PAPER 2

Kenya Certificate of Secondary Exams

TIME:2HRS 30 MINS

SECTION A (30 MARKS)

SECTION A: (30 MARKS)

Answer all questions in this section in the spaces provided.

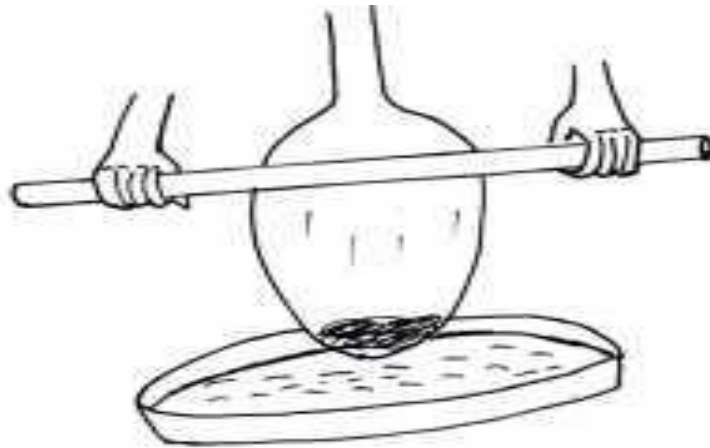
- 1.State **four** reasons that may discourage dairy farming in Kenya. (2 marks)
- 2.Outline **four** maintenance practices of a hack saw. (2 marks)
- 3.Name **two** methods used in disbudding. (1 mark)
- 4.Define line breeding. (1 mark)
- 5.Name **four** methods used in preserving fish. (2 marks)
- 6.Name **four** sources of carbohydrates in livestock nutrition. (2 marks)
- 7.What is the effect of increasing the tractor speed on the cut slice when using a disc plough? (1 mark)
- 8.Outline **four** routes through which disease Causing organisms get into the body of an animal. (2 marks)
- 9.Outline **three** precautions a farmer should take to avoid infection by brucellosis. (3 marks)
10. Highlight **three** reasons for keeping feeding records. (3 marks)
11. State **four** advantages of natural feeding in calf rearing. (2 marks)
12. Highlight **four** factors that affect maintenance requirements of an animal. (2 marks)
13. Name **two** developmental stages of a liver fluke. (1 mark)
14. State **four** reasons for feeding young calves on colostrum. (2 marks)
15. State **four** components of power transmission system. (2 marks)
16. State **four** factors that stimulate milk let down in a lactating cow.

SECTION B: (20 MARKS)

Answer all the questions in the spaces provided.

Study the illustration of processing honey below and answer the question that follow.

(2 marks)



(a) Name the part labelled.

(2 marks)

(b) State the function of part labelled S.

(1 mark)

(c) State **four** equipments used for harvesting honey.

(2 marks)

18. The diagram below represents a method of livestock nurture management practice. Study it carefully and answer the questions beneath/below.



(a) Identify the management practice represented above.

(1 mark)

(b) Name the farm tool used to carry out the management practice.

(1 mark)

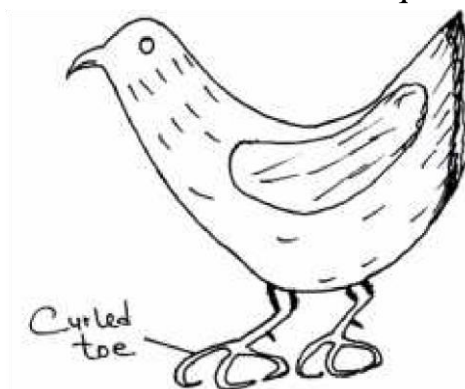
(c) State **one** major precautionary measure taken when carrying out the above management practice.

(1 mark)

(d) Name **four** livestock animals which the management practice is carried out.

(1 mark)

19. Study the illustration below and answer the question beneath.



-
- (a) What causes curled toes? (1 mark)
- (b) State **two** other deficiency symptoms besides curled toe paralysis. (2 marks)
- (c) State **four** sources of vitamin B₂. (2 marks)
20. Animal power is a common means of transport in our country.
- (a) Briefly explain the mechanism involved to enable them perform this practice. (3 marks)
- (b) State **two** major factors which determine animals power efficiency. (2 marks)

SECTION C: (40 MARKS)


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

- 21.(a) Explain the reasons for feeding livestock on a balanced ration. (6 marks)
- (b) Describe the preparation and management of natural incubation. (9 marks)
- (c) Describe the body conformation features of a beef cattle. (5 marks)
22. (a) What are the advantages of farm mechanization. (5 marks)
- (b) State **four** maintenance practices of a tractor battery. (4 marks)
- (c) Describe parts of a disc plough. (5 marks)
- (d) State the disadvantages of animal drawn implements as compared to tractor drawn implements. (6 marks)
- 23.(a) Outline **three** factors to consider when siting a calf pen. (3 marks)
- (b) Name and describe the features of an ideal calf pen. (3 marks)
- (c) What factors should a farmer consider when selecting materials for constructing a dairy cattle shed. (10 marks)





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