K.C.S.E AGRICULTURE
PAPER 2 2006

SECTION A (30 MKS)

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

1. Name a breed of sheep with a Lambing percentage of above 125 and whose fleece may be inferior due to black fibres. (1mk)

2. List two appropriate hand tools needed to finish off the handle of a fork-jembe. (1mk)

3. What is "cropping" in fish farming? (1mk)

4. State four functions of lubrication system in a tractor. (2mks)

5. Give four maintenance practices carried out on the water cooling system of a tractor. (2mks)

6. State reasons why a farmer would choose to use a disc plough rather than a mould board plough. (2mks)

7. State four construction features necessary in a fish pond. (2mks)

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

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

10. Give two predisposing factors of foot-rot in sheep. (1mk)

11. State four factors which should be considered when selecting dairy goats for breeding. (2mks)

12. Give four reasons why camels are suited to living in arid areas. (2mks)

13. Name two functions of the crop in the digestive system of chicken. (1mk)

14. State four methods of dehorning (2mks)

15. Mention six causes of stress to a flock of layers. (3mks)

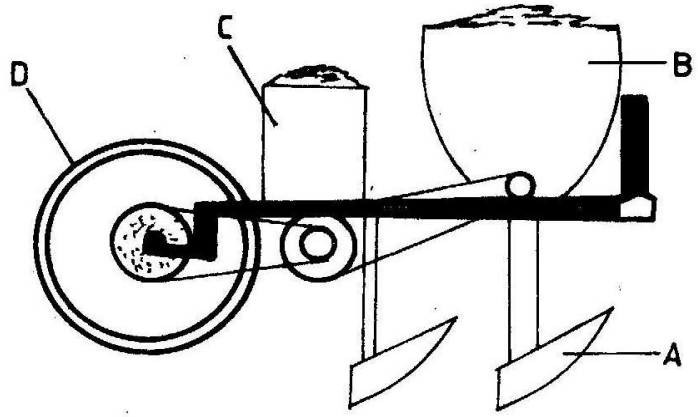
16. State four functions of the worker bees in a bee colony. (2mks)

17. State four features of a good pig house. (2mks)

SECTION B (20 MKS)

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

18. (a) A diagram of a planter is shown below. Study it and answer the questions that follow.



(i) Identify the parts labelled A, B, C, and D, (2mks)

A _____

B _____

C _____

D _____

(ii) State two maintenance practices carried out on the planter. (2mks)

b) Study the diagrams of workshop tools shown below

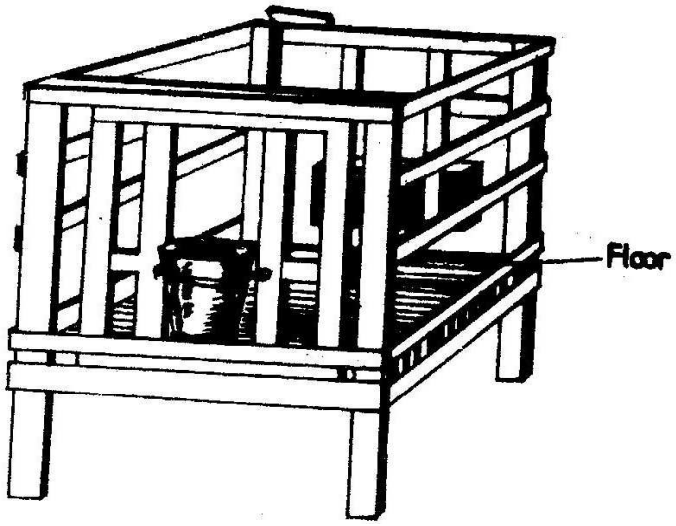
(i) Identify the tools labeled E and F (1mk)

E _____

F _____

(ii) What functional advantage does tool E have over tool F? (1mk)

19. The diagram below represents a calf pen. Study the diagram and answer the questions that follow.



(a) (i) Identify the type of floor. (½ mk)

(ii) How high should the floor be raised above the ground level? (1mk)

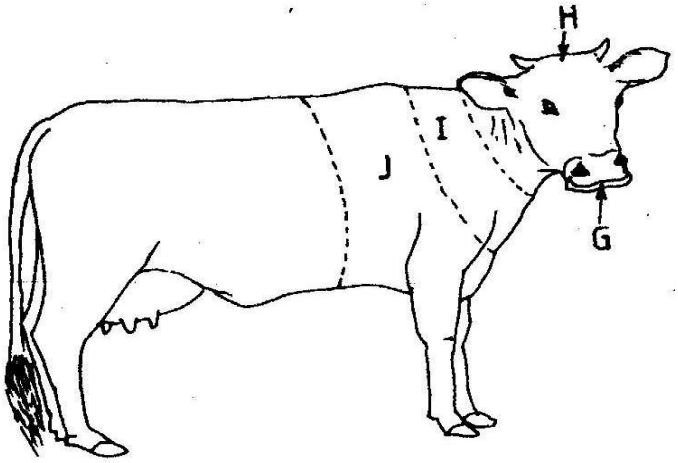
(b) (i) Give one reason for having the floor of the calf pen raised. (1mk)

(ii) State three factors that should be considered in sitting the calf pen. (3mks)

20. (a) Define the term digestible Crude Protein (DCP) (½ mk)

(b) A farmer wanted to prepare a 200kg of calf rearing ration containing 20% DCP. Using the Pears 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 work) (4mks)

21. A diagram of a cow is shown below. Study it and answer the questions that follow.



(a) Name the parts labeled G, H, I and J.

G _____

H _____

I _____

J _____

(b) Name four parts of the animal preferred by a two host tick. (2mks)

SECTION C (40 MKS)
Answer any TWO questions in this section

22. a) Outline the procedure followed when hand spraying cattle to ensure effective use of acaricides to control ticks. (10mks)

b) Discuss Foot and Mouth disease under the following headings:

(i) Casual organisms. (1mk)

(ii) Livestock species attacked. (2mks)

(iii) Symptoms of attack. (4mks)

(iv) Control measures. (3mks)

23. a) Describe the management practices that a farmer should carry out to improve milk production in a low yielding herd of dairy cattle. (15mks)

b) Describe the management practices that would ensure maximum yield of fish in a fish pond. (5mks)

24. a) What are the advantages of farm mechanization? (6mks)

b) Explain the differences between a two stroke and a four stroke cycle engine. (6mks)

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

K.C.S.E AGRICULTURE
PAPER 2 2007
QUESTIONS

SECTION A (30 mks)

Answer ALL the questions in this section

1. Give two reasons for using litter in a poultry house. (1mk)
2. Name two diseases of poultry that are controlled by vaccination. (1mk)
3. State two factors that could lead to failure to conceive in sows after service. (1mk)
4. Give tow causes of scouring in calves. (1mk)
5. State three factors that would determine the amount of concentrate fed to dairy cattle. (1½ mks)
6. Give three ways of stimulating milk let-down in a dairy cow. (1½ mks)

7. State tow reasons for dehorning cattle. (1mk)
8. List two equipment used in handling cattle during an agricultural exhibition. (1mk)
9. State three signs of anthrax infection disease observed in the carcass of cattle. (1 ½ mks)

10. Give three effects of external parasites that are harmful to livestock. (1½ mks)
11. State four factors to consider when siting a fish pond. (2mks)
12. State three adjustments that should be carried out on a tractor – mounted moulboard plough in preparation for ploughing. (1½ mks)

13. a) Name four breeds of dairy goats. (2mks)
    b) Mention two distinguishing characteristics of the Bactrian camel breed. (1mk)

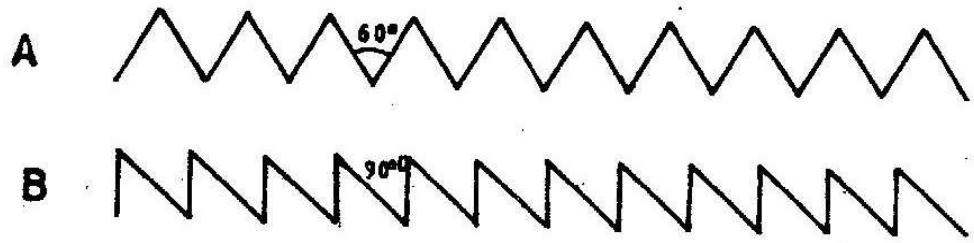
14. State five methods of maintaining good health in livestock. (2½ mks)
15. List four sources of farm power which are environmental friendly. (2mks)
16. State three maintenance practices that should be carried out on a feed trough. (1½ mks)

17. Name four systems of a tractor engine. (2mks)
18. List three types of calf pens. (1½ mks)
19. State four conditions that would encourage hens to eat eggs in poultry production (2mks)

SECTION B (20 MKS)

Answer ALL the questions in this section

20. The diagrams labeled A and B below show the teeth arrangements in hand workshop tools.



a) Identify the tools represented with by the teeth arrangements A and B. (1mk)

A ……..

B ……..

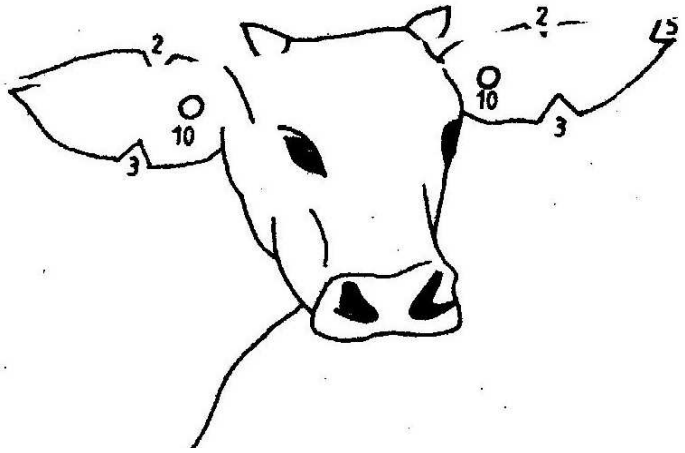
b) State one functional difference between tools represented by the teeth arrangements A and B.

A ……

B ……

c) Give two maintenance practices for the tools represented by the teeth arrangement shown above. (2mks)

21. a) The diagram below illustrates a method of identification in livestock production. Study the diagram and answer the Questions that follow.



i) Name the type of identification illustrated above. (1mks)

ii) Give the identification number of the animal illustrated in the diagram above. (1mk)

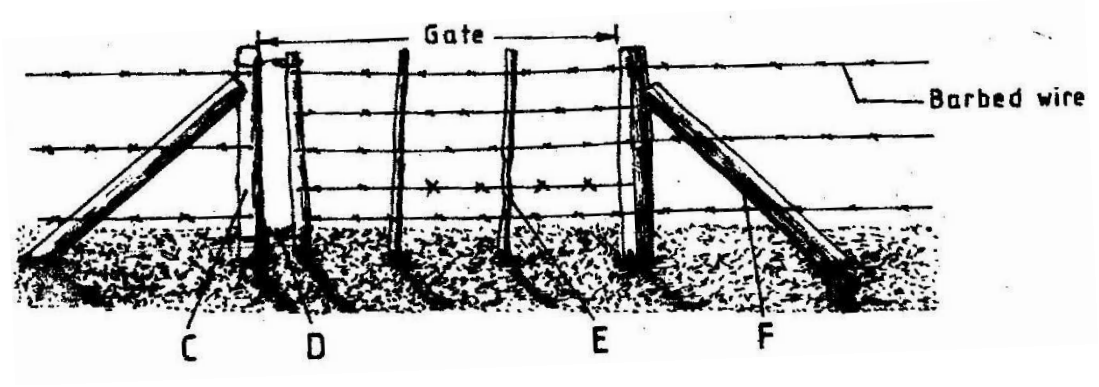
iii) Using diagrams illustrate how you can identify animals Nos 24 and 36 using the above method. (2mks)

Animal No. 24

Animal No. 36

(b) If a sow was successfully served on 27th September, 2006, state the date she is likely to have farrowed. (1mks)

22. The diagram below shows a type of a farm gate. Study the diagram and answer the questions that follow.



a) Identify the type of gate shown ($^1/_2$ mk)

b) Name the parts labeled C, D and E. (1 ½ mks)

C ……..

D ……

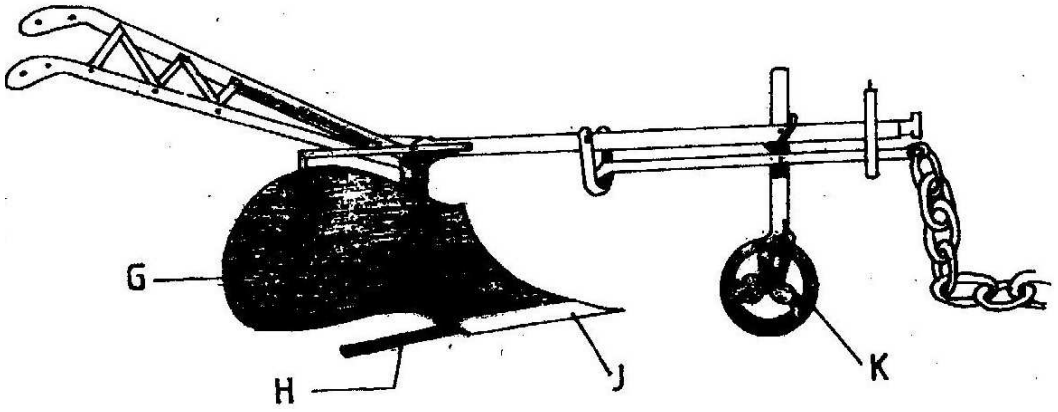
E ……..

c) i) State one function of the part labeled F. (1mk)

F ……

ii) State two functions of the gate illustrated above. (2mks)

23. The diagram below shows a farm implement. Study it and answer the questions that follow.



a) Identify the farm implement illustrated above. (1mk)

b) Name the parts labeled G, H, J and K.

G ……

H ……...

J ……

K ……..

c) State four functions of the farm implement illustrated above. (2mks)

SECTION C (40 mks)

Answer any TWO questions in this section in the spaces provided after question 26.

24. a) Describe the advantages of the battery system of rearing layers. (10mks)

b) Outline the factors to consider when selection livestock for breeding.

25. a) Name the strokes in a four stroke engine and describe how each operates. (12mks)

b) Describe the functions of the gear box in a tractor. (8mks)

26. a) Name and describe the features of an ideal calf pen. (9mks)

b) Discuss pneumonia in calves under the following sub – headings:

i) Predisposing factors (3mks)

ii) Symptoms (5mks)

iii) Control measures (3mks)

PAPER 2 2008
QUESTIONS

SECTION A (30 mks)

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

1. State **four** factors that determine the amount of water required by livestock. (2 mks)
2. State **three** factors that would determine the effectiveness of an acaricide. (1½ mks)
3. Name a breed of goat kept tor hair production. (½ mk)
4. Differentiate between **homogenization** and pasteurization in milk processing. (1mk)
5. Name a tool used for tightening barbed wire during fencing. ($^1/_2$ mk)
6. State **one** use of a sledge hammer on the farm. ($^1/_2$ mk)
7. What is dry cow therapy? (1 mk)
8. What is heterosis in livestock breeding? (1 mk)
9. State **four** factors that would contribute to the depreciation of farm equipment. (2 mks)

10. What is the function of the draw bar of a tractor? ($^1/_2$ mk)
11. Name the **two** types of air cleaners used in tractors. (1 mk)
12. What is the reason for turning eggs regularly during incubation? (1 mk)
13. Name the part of poultry digestive system in which cellulose is digested. ($^1/_2$ mk)
14. State **four** practices that should be carried out on wooden fencing posts to make them last long. (2 mks)
15. Name **four** structures which would assist in the control of livestock parasites on a farm. (2 mks)

16. Differentiate between mothering ability and prolificacy in livestock breeding. (1 mk)
17. Give **two** reasons for flushing in sheep management. (1 mk)
18. Give **three** uses of biogas on a farm. (1½ mks)

19. Name the causative agent of Gumboro disease in poultry.($^1/_2$ mk)

20. State how the following practices can be used to control livestock diseases:
    (a) Quarantine; (1 mk)

(b) Prophylactic measures. (1 mk)

21. State **two** reasons why proper nutrition is important in animal health. (1 mk)
22. State four predisposing factors to mastitis in dairy cattle. (2 mks)
23. Give two harmful effects of Keds (Melophagus Orinus) in sheep. (2 mks)
24. Name the breeds of livestock described below:

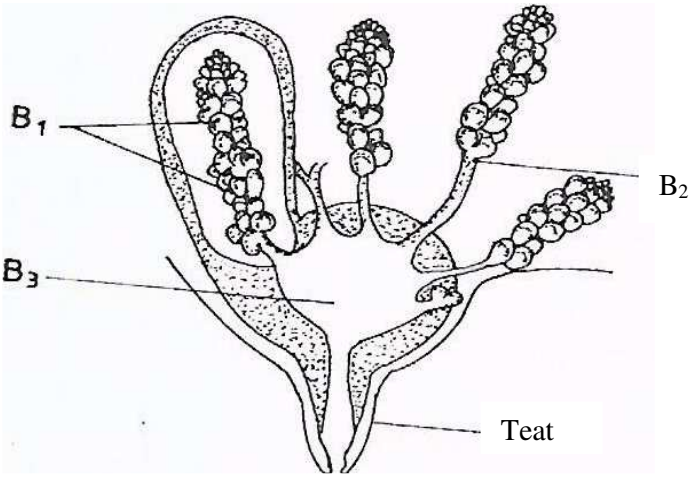
    (a) A pig breed which is white in colour, with straight snout and long ears Drooping over the face; (1 mk)

    (b) A beef cattle breed, deep red in colour; the face and part of the legs below the knees and hocks are always white. (1 mk)

SECTION B (20 mks)

Answer ALL the questions *in this section*

25. The diagram below shows a cross section of an udder. Study it and answer the questions that follow.



a) Identify the parts labeled B_1, B_2, and B_3. (3mks)

b) Give one unction of the part labeled B1 (1mk)

c) Name the part of the teat which is likely to be injured by poor hand milking technique. . (1 mk)

26 (a) Below are diagrams of fences C and D. Study them carefully and illustrate

On diagram C how diagonal wire braces and on diagram 0 how horizontal Wooden braces are used to reinforce the fencing posts. (2 mks)

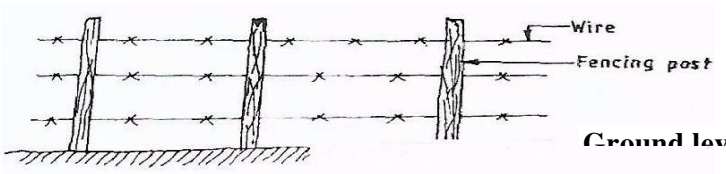


Diagram D

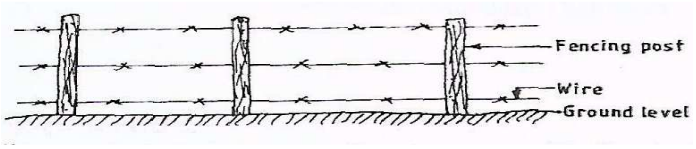


Diagram C

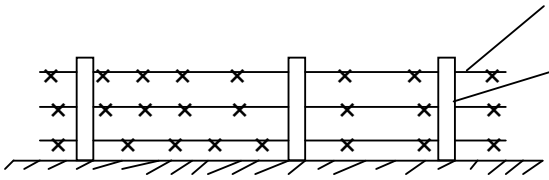
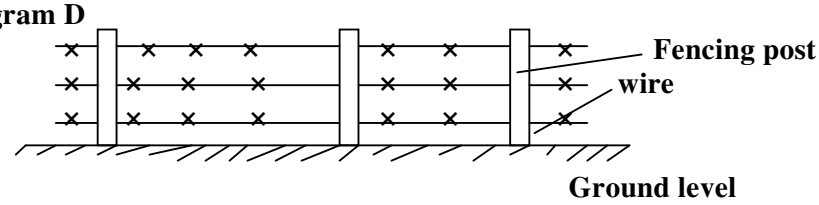
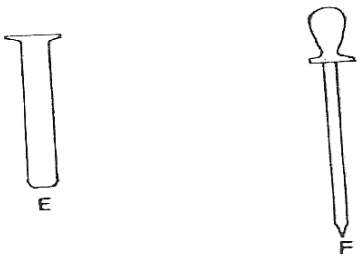


Diagram D



The diagrams below show a set of equipment used in livestock management.

Study them and answer the questions that follow.

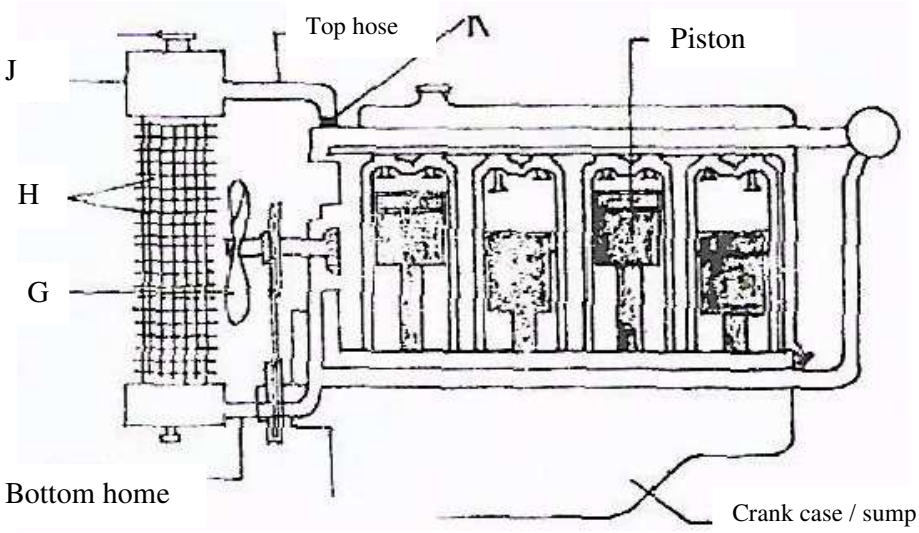


(i) Identify the equipment labelled E and F. (1 mk)

(ii) State the appropriate use of the set of equipment illustrated above. ($^1/_2$ mk)

(iii) Describe the appropriate procedure followed when using the equipment. (2 mks)

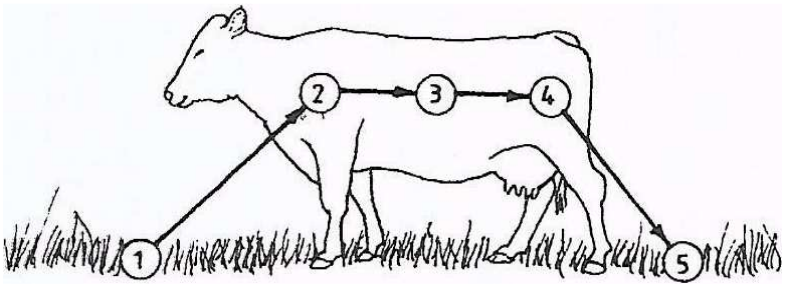
The diagram below shows the cooling system of a tractor engine. Study it carefully and answer the questions that follow.



(a) Name the parts labelled G, H, J and K. (2mks)

(b) State the functions of the parts labelled G, J and K in the cooling system. (3 mks)

28 The diagram below illustrates the stages of life cycle of a tick. Study the diagram and answer the questions that follow.



(a) Describe the development of ticks at 1, 2,3 and 4. (4mks)

(b) Classify the tick on the basis of the life cycle. (½ mk)

SECTION C (40 mks)

Answer any TWO questions in this section

29.

a) Describe the use of various hand tools required for the construction of a Wooden rabbit hutch, (10 mks)

b) What factors should a farmer consider when selecting materials for Constructing a dairy cattle shed. (10 mks)

30.

a) Describe the feeding practices carried out on a calf from birth to weaning. (10 mks)

b) Describe management practices that would ensure clean milk production in a dairy farm. (10 mks)

31. Describe how the following tractor components are used to attach implements to the tractor:

(i) Three (3) point linkage/hitch. (6 mks)

(ii) Power Take Off shaft (P.T.O) (4 mks)

(b)Describe how the ignition system of attractor petrol engine works. (10 mks)

MARKING SCHEME

SECTION A (30 MKS)

Answer ALL the questions in the section space provided

1. Study the table below and fill in the word (3mks)

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

2. Name two viral diseases that affect the following livestock:
   (a) Cattle (1mks)

   (b) Poultry (1mks)

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

   (a) Liver fluke (fascicle spp) ($^1/_2$mk)

   (b) Tape worms (taenia spp) ($^1/_2$mk)

4. Give four reasons for feeding a lamb on colostrums (2mks)

5. State four advantages of artificial calf rearing in dairy cattle management (2mks)

6. State four harmful effects of tsetse flies (Glossing spp) in livestock (2mks)

7. Why is riddling essential in sheep management? (1mks)

8. Give four reasons for steaming up in daily cattle management (2mks)

9. State four limitations of using hydroelectric power on the farm (2mks)

10. Give two reasons for maintaining a wheelbarrow in good working condition (1mks)

11. Differentiate between the following tools:

   (a) Bastard file and rasp file: (1mks)

   (b) Copying saw and hacksaw (1mks)

12. Name two livestock diseases that are caused by protozoa (1mks)

13. State four ways of restraining cattle during routine management (2mks)

14. What is meant by the following terms as used in livestock health?

(a) Incubation period (1mks)

(b) Mortality rate (1mks)

15. State two conditions that may inhibit milk let-down during milking (1mks)

16. Give four reasons for rearing indigenous cattle in marginal areas of Kenya. (2mks)

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

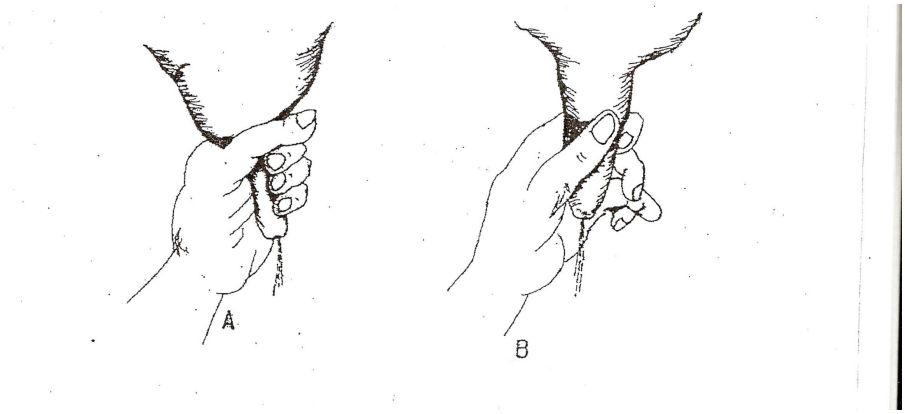
(a) Proper ventilation (1mks)

(b) Relative humidity at 60% (1mks)

SECTION B (20Mks)

Answer ALL the questions in this section in the space provided

18. The diagram labeled A and B below illustrate two different milking techniques. Study them and answer the questions that follow

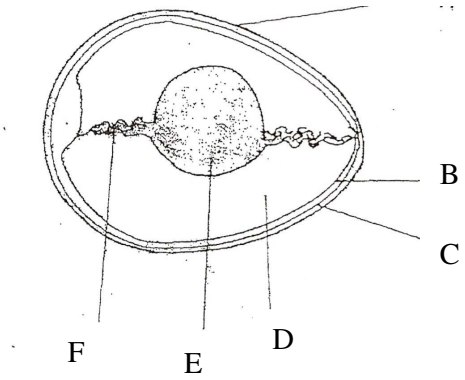


(a) Indentify the appropriate technique for milking (1mks)

(b) Describe the procedure of milking technique in (a) above (2mks)

(c) State two disadvantages of using a wrong milking technique (2mks)

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



(a) Name the parts labeled B,C,D and F

B…….. ($^1/_2$mks)

C…… ($^1/_2$mks)

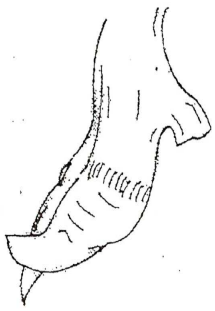
D…….. ($^1/_2$mks)

F……. ($^1/_2$mks)

(b) State two qualities of the part labeled A that should be considered d when selecting eggs for incubation. (1mks)

(c) What is the function of the part labeled E in a fertilized egg? (1mks)

20. The diagram below illustrate a hoof of a sheep .Study it carefully and answer the questions that follow.

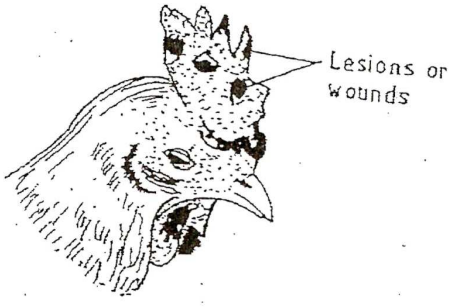


(a) Name the routine management practice that should be carried out on the hoof illustrated above (1mks)

(b) State two reasons for carrying out the management practice in (a) above (2mks)

21. The following diagram illustrates a symptom of diseases in poultry. Study it

carefully and answer the questions that follow.



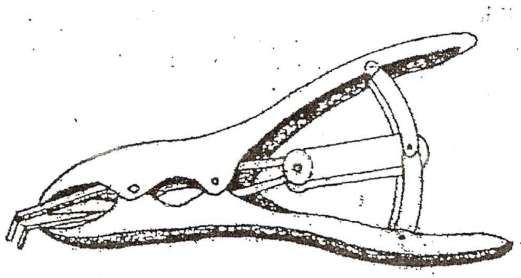
(a) Identify:
(i) The diseases ($^1/_2$ mk)

(ii) The causal organism. ($^1/_2$ mk)

(b) Apart from lesions ,state two other symptoms of the disease (2mks)

(c) State two control measures for the disease (2mks)

22. Below is an illustration of livestock management equipment. Study the diagram and answer the questions that follow.



(a) Identify the equipment (1mks)

(b) State the use of the equipment (1mks)

SECTION C (40MKS)
Answer any two questions from this section

23. (a) Describe **ten** signs of ill –health in livestock (10mks)

(b) Describe the process of digestion in the following sections in the alimentary canal of a non-ruminant animal:

(i) Mouth (1mks)

(ii) Stomach (3mks)

(iii) Small intestine (6mks)

24. (a) Outline five benefits of using biogas as a source of power on the farm (5mks)

(b) Give five advantages of using a subsoiler in seedbed preparation (5mks)

(c) Explain five factors that a farmer should consider when siting a bee hive to prevent swarming of bees (10mks)

25. (a) Describe the life cycle of a named tapeworm (Taenia spp) (10mks)

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

K.C.S.E AGRICULTURE
PAPER 2 2010
QUESTIONS

SECTION A (30 mks)

Answer all the questions in this section in the spaces provided

1 Name the causal agent of anaplasmosis disease in cattle, (½ mk)

2 List four materials that can be used in constructing a Kenya Top Bar Hive. (2 mks)

3 (a) Name two breeds of dairy cattle that originated from the Channel Islands. (1 mk)

(b) Give the distinguishing colour for each of the following breeds of livestock:
(i) chinchilla rabbit; (½ mk)
(ii) toggenburg goat. (½mk)

4 State four reasons for castration in pig production. (2 mks)

5 State **four** characteristics of roughage livestock feeds. (2 mks)

6 State two functions of the crop in poultry digestive system. (I mk)

7 State **four** roles of worker bees in a colony. (2 mks)

8 Give **four** reasons for controlling livestock diseases. (2 mks)

9 State **two** control measures for fowl pox disease in poultry.

10 State **one** function for each of the following:
(a) shovel; (2 mk)
(b) strip cup. (1½mk)

11 Give **three** reasons for carrying out maintenance practices on a mower (1½ mks)

12 Give **three** limitations of using solar power on the farm. (½ mks)

13 Why is it important to have a thermostat on a cooling system of a tractor engine? (1 mk)

14 Give two advantages of using a disc plough over a mouldboard plough in primary cultivation. (1 mk)

15 Name **four** tools that are used when laying concrete blocks during construction of a wall. (2 mks)

16 Why is it necessary to have guard rails in a farrowing pen? (1 mk)

17 Give **two** reasons for having a footbath in a cattle dip. (1 mk)

18 Distinguish between the following practices as used in livestock production;

(a) crutching and ringing in sheep management; (2 mks)

(b) cropping and harvesting in fish farming. (2 mks)

19 Give three ways in which infectious diseases can spread from one livestock to another within a farm. (1½ mks)

SECTION B (20 mks)

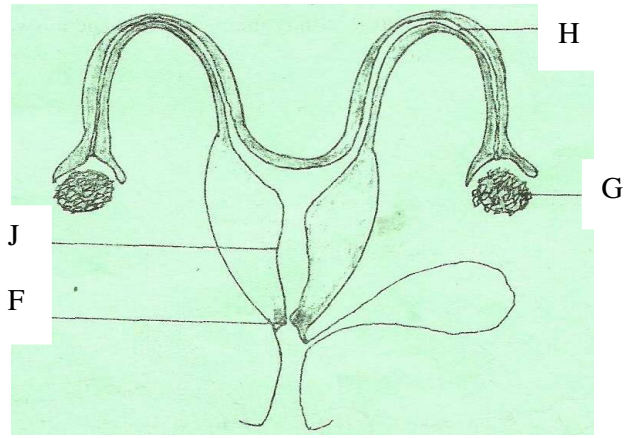
Answer all the questions in this section

20 The following illustrations show the behaviour of chicks in a brooder. Study them carefully and answer the questions that follow.

(a) Explain the cause of behaviour observed in chiefs for each of the illustrations labeled A, B and C. (3 mks)

(b) Give a reason for making the brooder wail round in shape. (1 mk)

21 The diagram below shows the reproductive system of a cow. Study it carefully and answer the questions that follow.

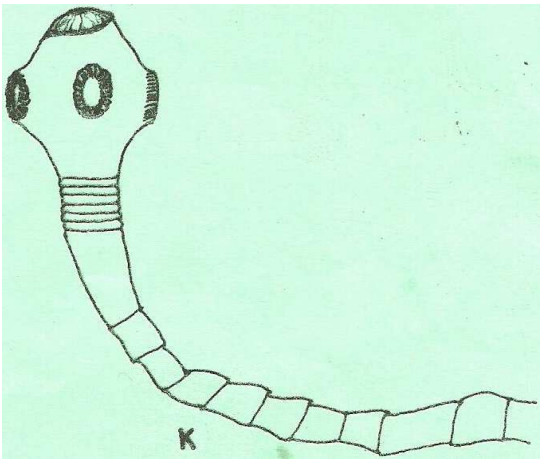


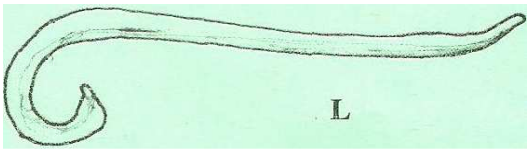
(a) Name the parts labelled F and H,

(b) Give **two** functions of the part labelled G (2 mks).

(c) **Give** the role of the part labelled J. (2 mks)

22. Below are diagrams of internal parasites. Study them carefully and answer the questions that follow.



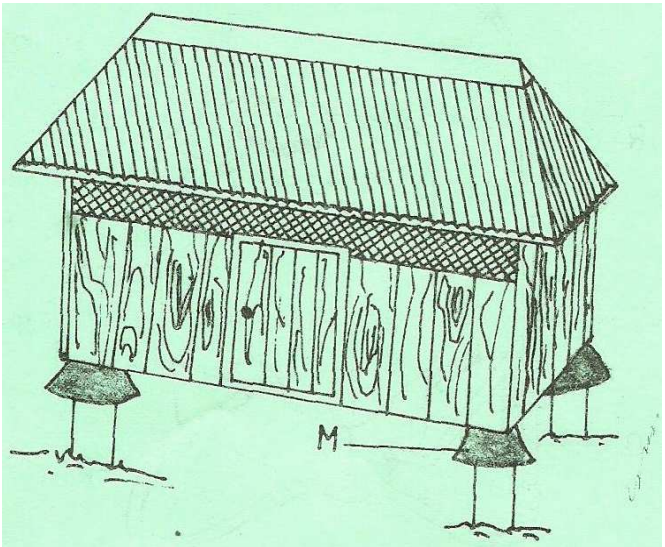


(a) Identify the parasites labelled K and L.

(b) Name the developmental stage of the parasite labelled K in cattle muscles. ($^1/_2$ mk)

(c) Outline the procedure of handling a heifer when administering a liquid deworming drug to control the parasites illustrated above. ($2^1/_2$ mks)

23 Below is a diagram of a farm structure for storing grains. Study it carefully and answer the questions that follow.

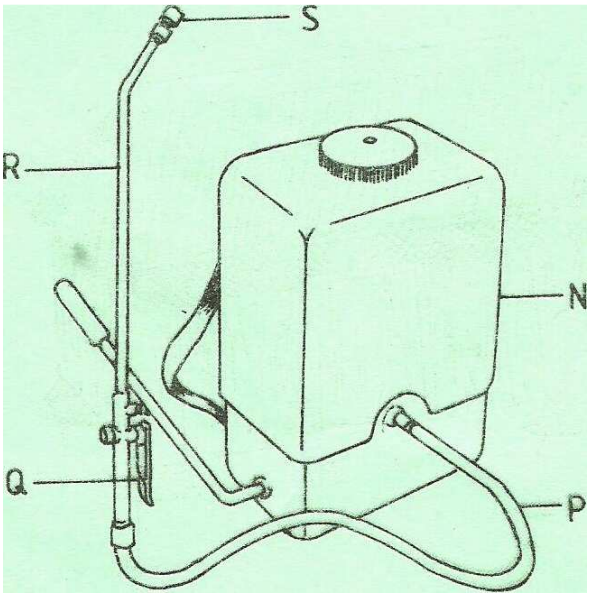


(a) Identify the farm structure illustrated above.

(b) State the function of the part labelled M. ($^1/_2$ mk)

(c) State two maintenance practices that should be carried out on the farm structure illustrated above in readiness for grain storage. (1 mk)

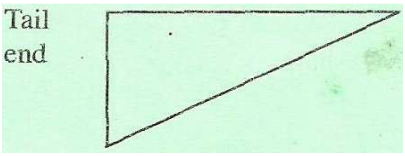
23. Below is a diagram of a knapsack sprayer. Study it carefully and answer the questions that follow.



(a) Name the parts labelled N, P, Q and R. (2 mks)

(b) State one function of the part labelled S (1 mk)

25. The diagram below illustrates the general shape of a cattle breed. Study it carefully and answer the questions that follow.



(a) Identify the type of breed illustrated by the above shape ($^1/_2$ mk)

(b) Give an example of a breed in (a) above. ($^1/_2$ mk)

(c) State four physical characteristics of the type of breed identified in (a) above. (2 mks)

SECTION C (40 mks)

Answer any two questions from this section

26 (a) Outline **five** advantages of artificial insemination in cattle management. (5 mks)

(b) Describe **ten** signs of trypanosomiasis (Nagana) disease in livestock. (10 mks)

(c) Explain **five** functions of water in nutrition. (5 mks)

27 (a) State the function of any **six** parts of a zero grazing unit in dairy farming. (6 mks)

(b) Explain how the power transmitted from a tractor engine is made available for use on the farm under the following subheadings:

(i) propeller shaft; (2 mks)

(ii) power take off (P.T.O) shaft; (2 mks)

(iii) hydraulic system. (2 mks)

(c) Explain **eight** ways in which ticks can be controlled on a livestock farm. (8 mks)

28 (a) Describe **ten** physical characteristics a poultry farmer would use to identify poor layers from a flock of hens. (10 mks)

(b) (i) Outline **three** characteristics of clean milk. (3 mks)

(ii) Explain **seven** factors that affect milk composition in dairy fanning. (7 mks)

K.C.S.E AGRICULTURE
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QUESTIONS

SECTION A (30 mks)
Answer all the questions in this section in the space sprovided.

1 State four maintenance practices for a disc plough. (2 mks)

2 Name three methods that are used in selection of breeding stock in livestock production, ($^1/_2$ mks)

3 State four advantages of using animals instead of tractors as a source of power on the farm. (2 mks)

4 Name one livestock disease that is transmitted by each of the following parasites:
(a) blue ticks; ($^1/_2$ mks)
(b) brown ear ticks; (½ mk)
(c) tsetse flies. ($^1/_2$ mks)

5 State four methods of controlling round worms *(Ascaris sp)* in livestock. (2 mks)

6 Give the meaning of the following terms as used in livestock health:
(a) disease; (1 mk)
(b) vaccination. (1 mk)

7 State three maintenance practices for a tractor battery. (1½ mks)

8 Name the type of breed into which each of the following breeds of cattle are classified:

(a) Aberdeen Angus; ½ mks
(b) Guernsye ½ mks
(c) Sahiwal ½ mks
(d) Red poll ½ mks

9 Give **two** ways in which proper nutrition helps to control livestock diseases. (1 mk)

10 List **four** categories of livestock diseases. (2 mks)

11 Name two breeding systems that can increase the frequency of high

milk production genes in indigenous cattle. (1 mk)

12 Name two bloodless methods of castration in lambs. (1 mk)

13 Give the meaning of the following terms as used in livestock breeding:
(a) recessive gene; (1 mk)
(b) epistasis. (1 mk)

14 State **four** signs that indicate that a doe is about to kindle. (2 mks)

15 Name **two** developmental stages of a liverfluke *(Fasciola sp.)* which occur in the fresh water snail *(Limnaea sp).* (1 mk)

16 Name the strokes in a four stroke cycle engine (2 mks)

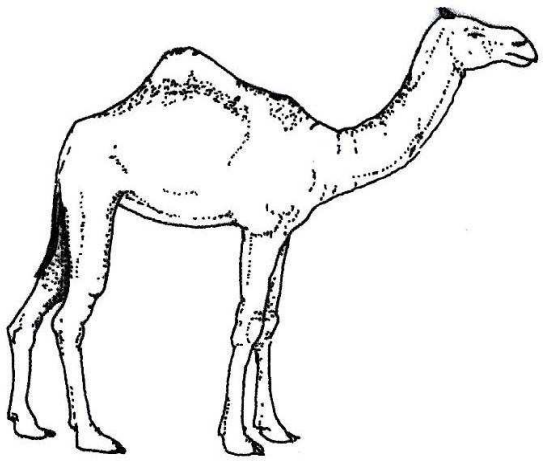
17 State **four** signs of mite attack in poultry. (2 mks)

18 State **three** advantages of natural feeding in calf rearing. (1mks)

SECTION B (20 mks)
Answer all the questions in this section in the spaces provided.

19 A dairy farmer is required to prepare 100 kg of dairy meal containing 20% Digestible Crude Protein (D.C.P.). Using the Pearson's Square Method, calculate the quantity of soya bean (40% D.C.P) and rice (16% D.C.P.) the farmer requires for the dairy meal. (4 mks)

20. Below is a illustration of a camel. Study it and answer the questions that follow

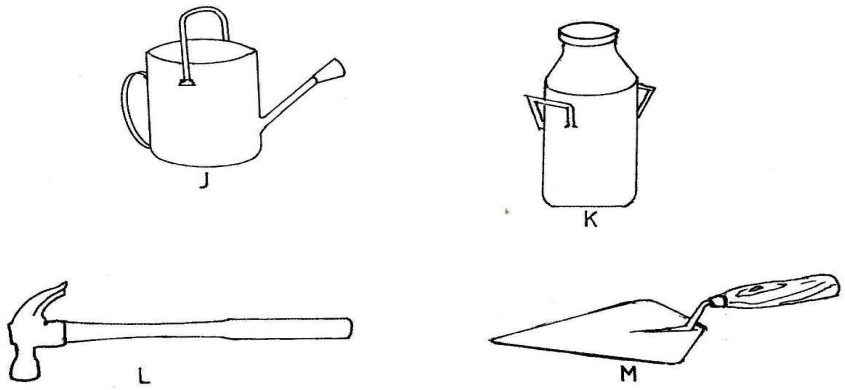


a) Identify the camel species illustrated above ($1^1/_2$ mks)

b) Name three products that farmers obtain form the camel species illustrated above (1½ mks)

c) Give two reasons why the camel species illustrated above is able to survive in this natural habitat (2mks)

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



a)Identify the tool / equipment labeled J, K and M

j (½ mk)

k (½ mk)

m (½ mk)

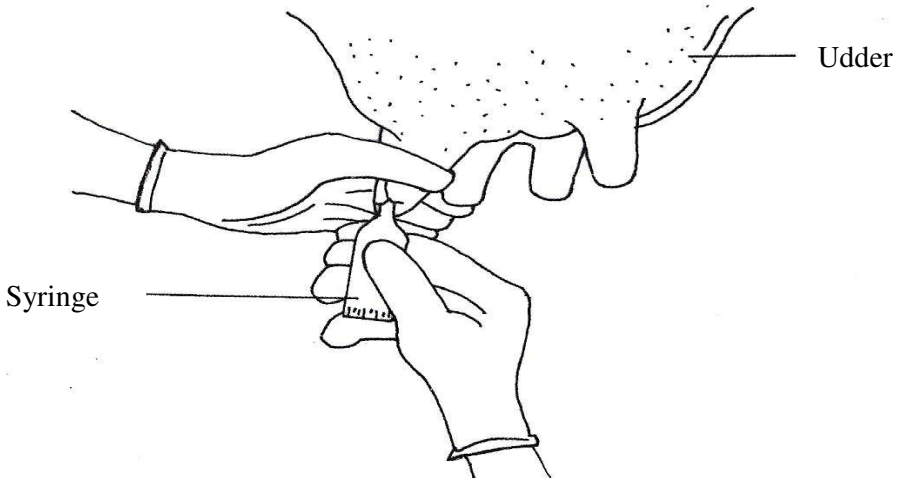
B) state one use for each of the tool/ equipment labeled K and L

K (1mk)

L (1mk)

c) Give two maintenance practices for the equipment labeled K (1mk)

22. The illustration below shows a practice carried out to prevent mastitis infection in a dry cow.

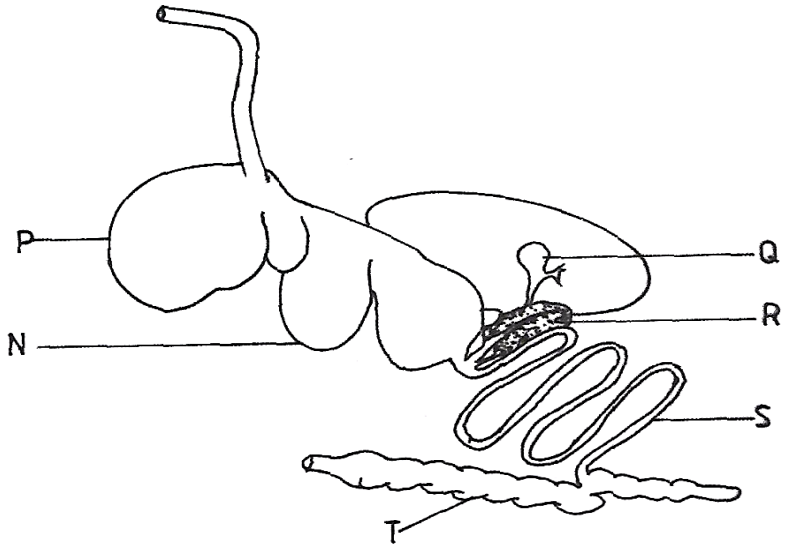


a) Identify the practice ($^1/_2$ mks)

b) At what stage is the practice carried out? (½ mks)

c)State two other practices that are carried out on the udder to prevent mastitis infection (2mks)

23. The diagram below shows the digestive system of cattle, study it and anse the questions that follow



a) Name the parts labeleld N, P and Q

N ($^1/_2$ mks)

P ($^1/_2$ mks)

Q ($^1/_2$ Mks)

a) Name the parts labeleld NP and Q

S ($^1/_2$ mks)

T ($^1/_2$ mks)

C) Give one enzyme produced by each of the parts labeleld R and S

R ($^1/_2$ mks)

S ($^1/_2$ mks)

SECTION C (40 mks)
Answer any two questions from this section

24 (a) Explain the factors considered when culling livestock.

(b) Describe poultry management under the following sub-headings:

(i) causes of stress;

(ii) control measures for cannibalism.

25 (a) Describe the feeding practices in artificial rearing of a dairy calf,

(b) Describe Newcastle disease under the following sub-headings:

(i) causal organism;

(ii) signs of infection;

(iii) control measures.

26 (a) Describe the uses of fences on the farm.

(b) Give five harmful effects of liver flukes in sheep rearing.

(c) State the differences between a diesel engine and a petrol engine.

K.C.S.E AGRICULTURE
PAPER 2 2012
QUESTIONS

SECTION A (30 mks)

Answer all the questions in this section

1. Apart from hides and skins, name the raw material obtained from each of the following livestock for the textile industry:

   (a) goat .....(½

   (b) sheep ..... (½ mk)

   (c) rabbit ..... (½ mk)

2 Give three reasons for candling eggs in poultry production. (1½ mk)

3 Name two nutritional diseases of cattle. (1mk)

4 State two advantages of housing calves singly in cattle management. (1mk)

5 Give four features of housing that help to control livestock diseases. (2 mks)

6 Name three methods of harvesting fish in a pond. (1mk)

7 State five methods of dehorning in cattle management. (2½ mks)

8 Give the appropriate term that refers to each of the following;

   (a) Castrated chicken

   (b) Young one of a rabbit

   (c) Mature male goat.

9 Give three ways in which fanners market beef cattle in Kenya. (1½ mk)

10 State four causes of egg eating in a flock of layers. (2 mks)

11 Name two practices that are carried out when preparing ewes for mating. (1mk)

12 Give four reasons for identification in cattle management. (2 mks)

13 State three advantages of fold system in poultry rearing. ($1^1/_2$ mk)

14 State four practices that immediately come after complete milking in a milking shade. (2 mks)

15 The following is a list of livestock diseases.

- brucellosis
- trypanosomiasis
- newcastle
- anthrax
- african swine fever
- black quarter.

Which two diseases are

(a) Both bacterial and zoonotic? (1mk)

(b) Caused by virus? (1mk)

16 State three functions of a lubrication system on a tractor. (1 ½ mks)

17 Distinguish between the following terms as used in livestock health:

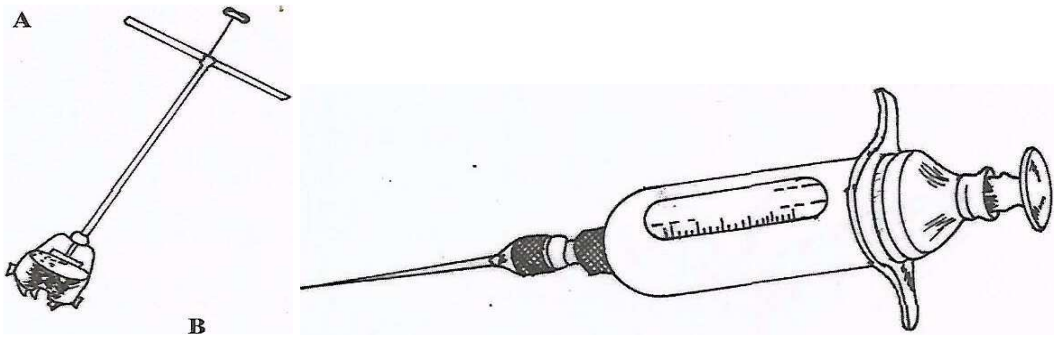
(a) isolation and quarantine; (2 mks)

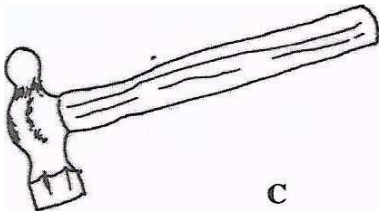
(b) curative drug and prophylactic drug. (2 mks)

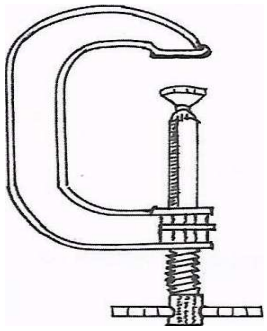
SECTION B (20 mks)

Answer ALL the questions in this section

18 Below are illustrations of farm tools and equipment.







a)Identify the tool/equipment labeled A and B

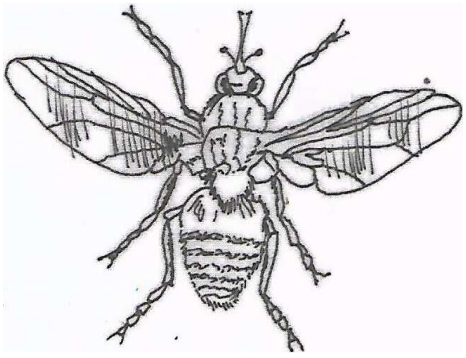
A (1mk)

B (1mk)

b) State one appropriate use of the tool labeled C (1mk)

c) Explain two maintenance practices for the tool labeled D (2mks)

19. The diagram below illustrates a livestock parasite

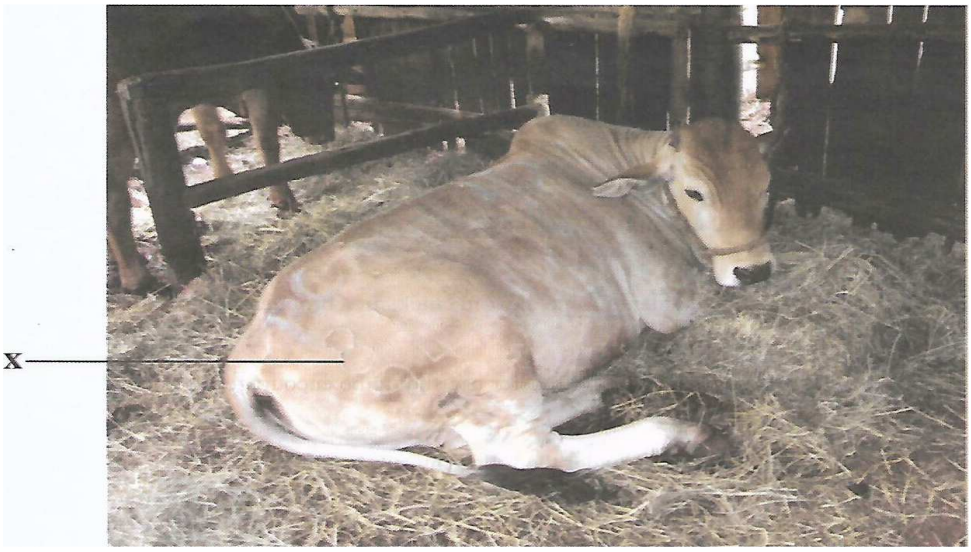


a) Identify the parasite illustrated above (1mk)

b) State the major harmful effect of the parasite (1mk)

c) Explain four control measures for the parasite (1mk)

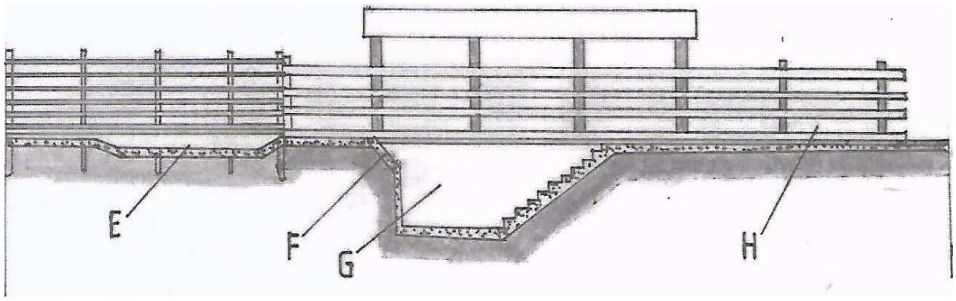
20. The photograph below illustrates a method of identification labeled X in cattle



a)Name the identification method (1mk)

b) Explain three disadvantages of the identification method

21. The illustration below shows a cross section of a cattle dip



a) Name the parts labeled E and G

E (1mk)

G (1mk)

b) State one use for each of the parts labeled E,F, and H (3mks)

E

F

H

SECTION C (40 mks)

Answer any **TWO** questions from this section

22 (a) Describe the functions of the various types of pens in a piggery unit. (4 mks)

(b) Describe the control measures for tape worms (Taenia spp) in livestock (6 mks)

(c) Giving a relevant example in each case, describe the role of the various Components of a balanced diet in livestock nutrition. (10 mks)

23 (a) Describe the management of one day old chicks in a brooder until they are eight weeks old. (12 mks)

(b) Give the reasons why embryo transfer use should be encouraged in dairy cattle breeding. (8 mks)

24 (a) Describe foot rot disease under the following sub-headings:

(i) causal organism; (1 mk)

(ii) signs of infection; (5 mks)

(ii) control measures. (4 mks)

(b) Explain the importance of each of the functional differences between a disc plough and a mouldboard plough in land preparation. (10 mks)

K.C.S.E AGRICULTURE
PAPER 2 2013
QUESTIONS

(THEORY)

SECTION A (30 mks)

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

1. State four ways of controlling lice in poultry. (2 mks)
2. State three signs of heat observed in rabbits. (1 ½ mks)
3. Name three methods of extracting honey from combs. (1 ½ mks)
4. State three signs of broodiness in a hen. (1 ½ mks)

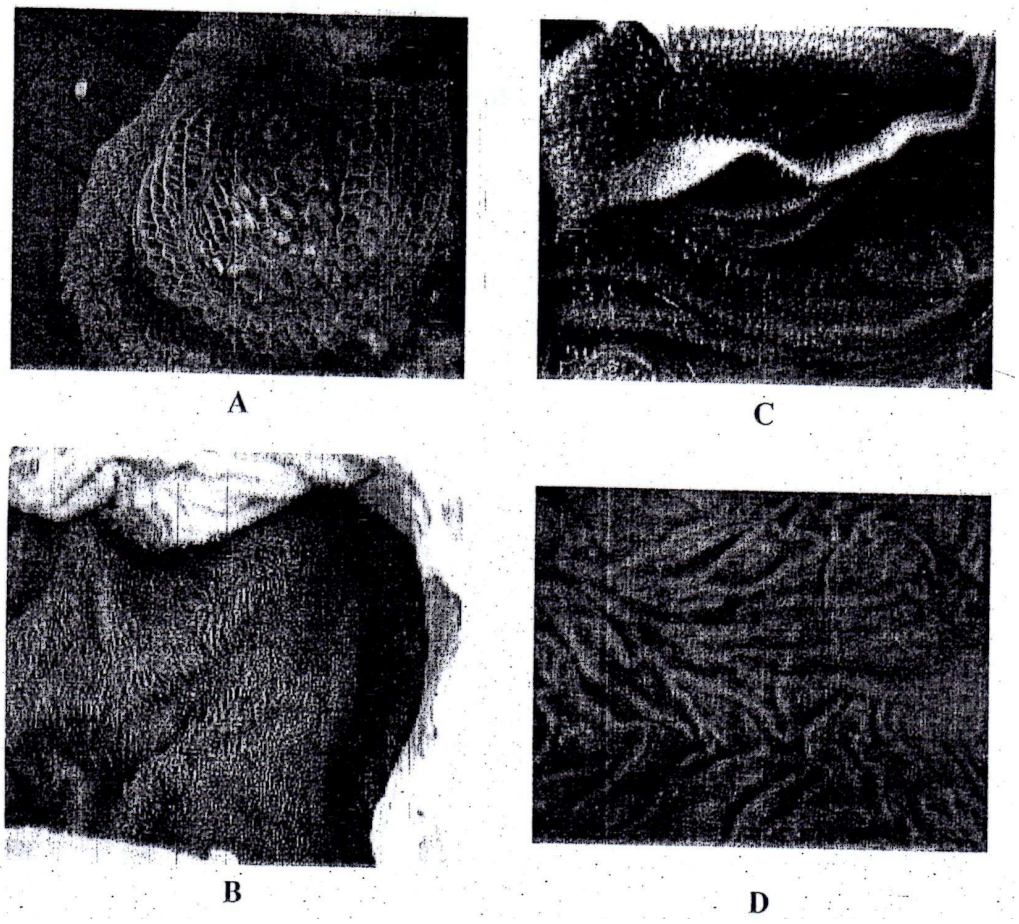
5. Give the main reason for each of the following in dairy farming: (1 ½ mks)
   a) Milking quickly and evenly;
   b) Milking at regular times;
   c) Complete milking.

6. State four factors that stimulate milk let-down in a lactating cow. (2 mks)
7. State four of infestation by external parasites in goats. (2 mks)
8. Give four disadvantages of inbreeding in livestock production. (2 mks)
9. State four advantages of fish farming in Kenya. (2 mks)
10. Give two reasons for castration in piglets. (1 mk)
11. Name two practices that are carried out on eggs in preparation for mketing. (1 mk)
12. State two precautions that should be observed when shearing sheep to ensure production of high quality wool. (1 mk)
13. Name four parts of a farm building that can be reinforced using concrete. (2 mks)
14. State four factors that can affect digestibility of a feedstuff in livestock. (2 mks)
15. State two causes of soft shelled eggs. (1 mk)
16. Give four characteristics of a good site for a fish pond. (2 mks)
17. State four disadvantages of fold system in poultry rearing. (2 mks)
18. Name four methods of docking in sheep rearing. (2 mks)

SECTION B (20 mks)

Answer ALL the questions in this section in the spaces provided

19. Below are photographs showing parts of a ruminant stomach. Study them and answer the questions that follow.



a) Identify the parts labeled A and B (2 mks)

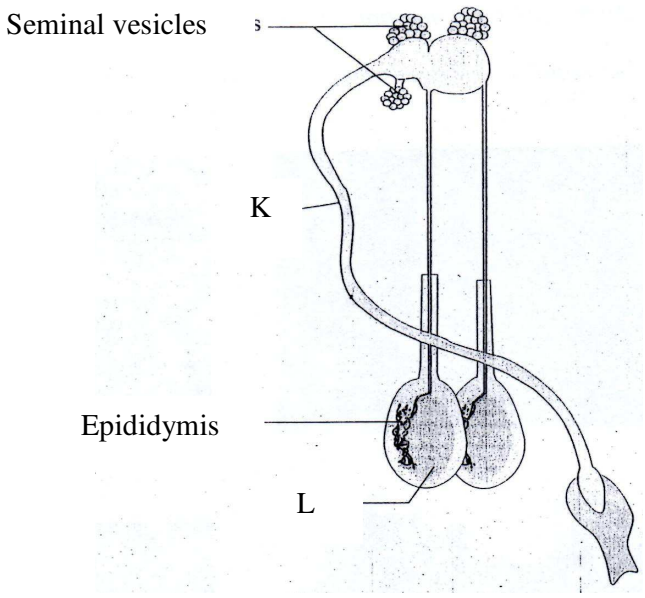
b) State one function of the part labeled

A. (1 mk)

C. (1 mk)

c) Name one enzyme that is produced in the part labeled D. (1 mk)

20. Below is a diagram illustrating the reproductive system of a bull. Study it and answer the questions that follow.



a) Identify the parts labeled

K (1 mk)

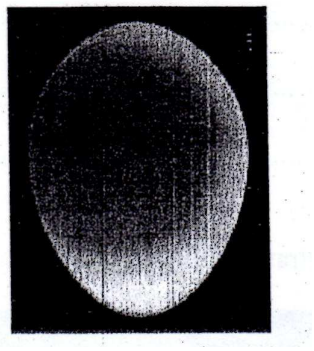
L (1 mk)

b) State the function of the part labeled

Epididymis (1 mk)

Seminal vesicles (1 mk)

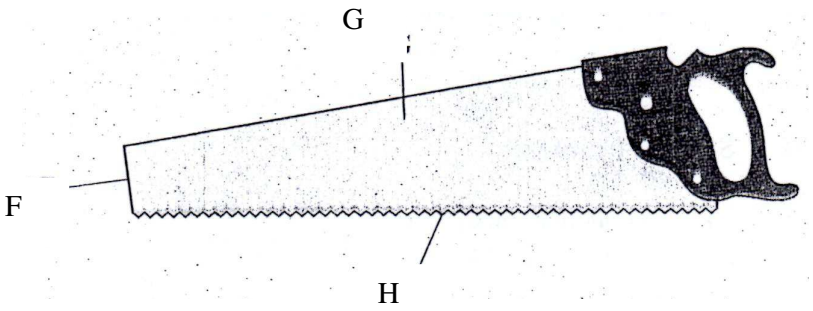
21. Below is a photograph showing an egg being candled. Study it and answer the questions that follow.



a) Why is candling important in poultry farming? (1 mk)

b) What changes will be observed on the same egg if it was candled on the 18^{th} day of incubation? (2 mks)

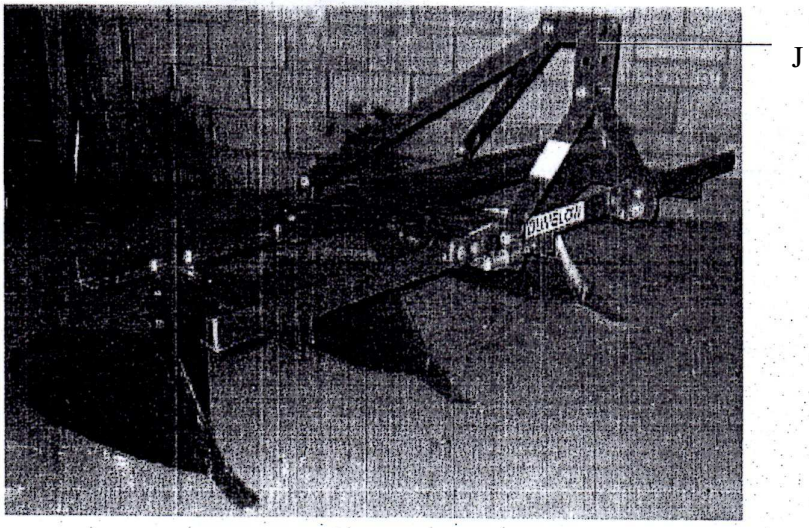
22. The following is an illustration of a handsaw. Study it carefully and answer the questions that follow.



a) Name the parts labeled
F (1 mk)
G (1 mk)

b) Explain three maintenance practices that should be carried out on the part labeled H.
(3 mks)

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



(a) Identify the implement illustrated above (1mk)

(b) State the use of the:

i) Implement on the farm: (1mk)

ii) Part of the implement labeled **J** (1mk)

SECTION C (40 Mks)

Answer any TWO questions from this section

24. (a) Give five reasons for keeping livestock healthy. (5mks)

(b) Describe the symptoms of roundworm infestation in livestock. (7mks)

(c) Describe the control measures for cannibalism in layers (8mks)

25. (a) Describe the body conformation features of a diary heifer (5mks)

(b) State the disadvantages of using live fences on a farm. (7mks)

(c) Describe how a four-stroke cycle petrol engine works. (8mks)

26. (a) Describe the disease control routine management practices in calf rearing (7mks)

(b) Describe contagious abortion (Brucellosis) disease under the following sub-headings:

i) Causal organism; (1mk)

ii) animals affected (2mks)

iii) Symptoms; (4mks)

iv)Control measures. (6mks)

K.C.S.E AGRICULTURE
PAPER 2 2014
QUESTIONS

SECTION A (30 mks)

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

1 Name the **two** products obtained from dual purpose sheep. (1 mk)

2 Give **two** practices that should be done to a newly born calf with difficult breathing. (1 mk)

3 (a) What is meant by the term two host tick? (1 mk)

(b) Give **two** examples of two host ticks in cattle. (1 mk)

4 State **four** disadvantages of using plunge dips in tick control. (2 mks)

5 (a) State the functions of the following farm tools and equipment:

(i) pipe cutter; (½ mk)

(ii) wire strainer. (½ mk)

(b) Name **four** tools that can be used to assemble a jembe. (2 mks)

(c) Name the complementary tool for each of the tools named below:

(i) trochar; (½ mk)

(ii) hand drill. (½ mk)

6 Name **two** livestock diseases controlled through embryo transplant. (1 mk)

7 State **three** factors that limit external parasite control in Kenya. (1 \ mks)

8 State **four** characteristics of the Duroc Jersey pig. (2 mks)

9 Name **four** categories of poultry feeds according to the stages of growth of birds. (2 mks)

10 State **four** ways in which a vaccine can be administered to livestock. (2 mks)

11 (a) Name **three** protozoan diseases of cattle. (ly mks)

(b) State **four** symptoms of rinderpest in cattle. (2 mks)

12 State **four** maintenance practices carried out on a spray race. (2 mks)

13 (a) Give **four** reasons for proper feeding in livestock rearing. (2 mks)

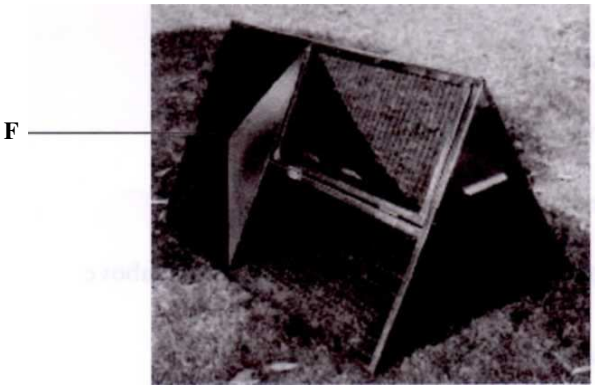
(b) State **four** good hygiene practices in livestock feeding. (2 mks)

14 State **four** reasons why kids should be weighed immediately after birth. (2 mks)

SECTION B (20 mks)

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

15 The picture below shows a poultry farm structure.

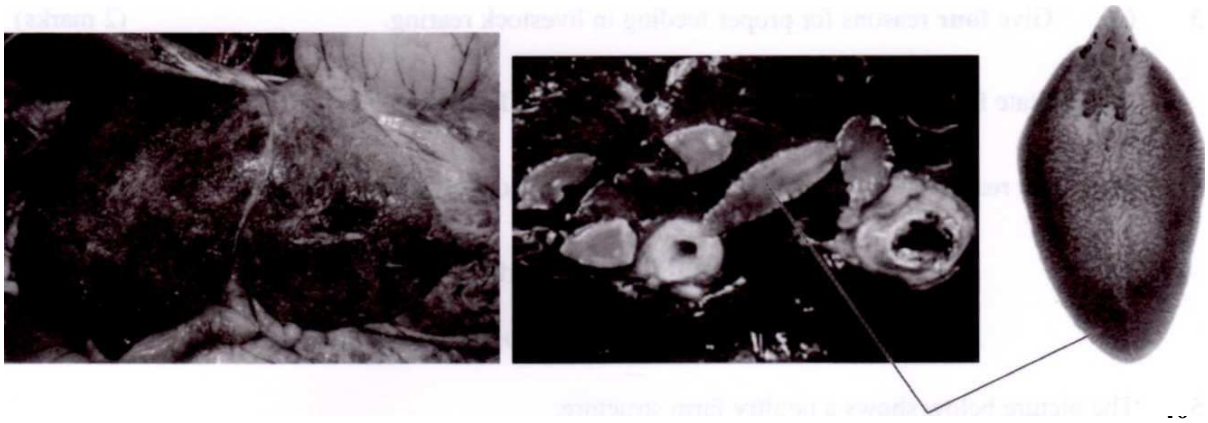


(a) Identify the farm structure. (1 mk)

(b) Apart from metal, name **two** materials that can be used for the part labelled **F.** (2 mks)

(c) State **three** disadvantages of using the farm structure illustrated above in poultry rearing. (3 mks)

16. The picture below illustrates a livestock organ infested by a parasite labelled E.



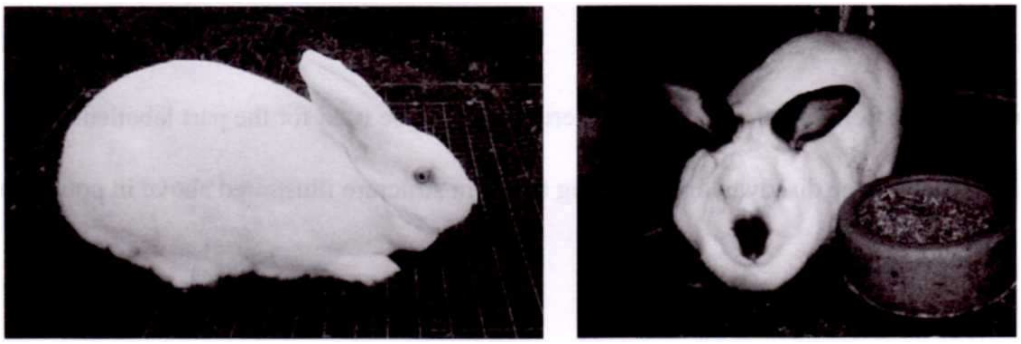
(a) Name the disease the livestock is suffering from. (1 mk)

(b) Identify the parasite labelled **E.** (1 mk)

(c) State **two** control measures for the parasite. (2 mks)

(d) State **two** signs of infestation shown in the picture above. (2 mks)

17. The pictures below illustrate two rabbit breeds.



A B

(a) Name the rabbit breeds shown above.

A ..... (1 mk)

B..... (1 mk)

(b) Name the major feeding practice missing from the photograph labelled B. (1 mk)

(c) Give **one** advantage of housing the rabbits on the floor illustrated above. (1 mk)

18 The following is an illustration of a chick suffering from malnutrition.

(a) Identify the mineral deficiency shown by the chick. (1 mk)

(b) Apart from the symptom illustrated above, give **three** other symptoms of mineral deficiency in poultry. (3 mks)

SECTION C (40 mks)

*Answer any **two** questions from this section*

19 (a) Describe upgrading as a method of improving indigenous cattle for milk production. (8 mks)

(b) Describe the causes of low egg production in layers. (12 mks)

20 (a) Describe how the late weaning programme is conducted in a dairy calf. (12 mks)

(b) Describe how a newly constructed pond is prepared and stocked with fingerlings. (8 mks)

21 (a) (i) Describe short-term tractor servicing. (10 mks)

(ii) Explain the maintenance practices that should be carried out on an ox-cart. (5 mks)

(b) State **five** indicators that can be observed on a goat to confirm sickness. (5 mks)

K.C.S.E AGRICULTURE
PAPER 2 2015
MARKING SCHEME

SECTION A (30 mks)

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

1. Name four rabbit breeds reared in Kenya. (2 mks)
2. State four characteristics of desirable eggs for mketing. (2 mks)
3. Name two types of roughage. (1 mk)
4. Give four disadvantages of inbreeding in livestock. (2 mks)
5. Name the nutritional deficiency for each of the following livestock diseases:
   (a) Milk fever; . (1 mk)
   (b) Bloat (1 mk)
6. Give two reasons for docking in sheep rearing. (1 mk)
7. State four signs of fowl typhoid. (2 mks)
8. Differentiate between drift and pen lambing. (2 mks)
9. State four features on the animal which may predispose it to livestock diseases. (2 mks)
10. Give four factors that affect milk composition. (2 mks)
11. State two control measures for keds in sheep. (1mk)
12. State two maintenance practices carried out on a greenhouse structure. (1 mk)

13. (a) Name the goat breed which is brown in colour with white strips running down the face to the nose. (½ mk)
    (b) State four rearing practices that necessitate handling of piglets. (2 mks)

14. Give four preventive measures for livestock diseases. (2 mks)
15. State one function of each of the following parts during egg formation in poultry:
    a) Funnel (½ mk)
    b) Magnum (½ mk)
    c) Isthmus. (½ mk)

16. The following is a list of poultry breeds:

White Leghorn

Light Sussex

Rhode Island

Red Ancona.

Categorize them into:

a) Light breeds; (1 mk)

b) Heavy breeds. (1 mk)

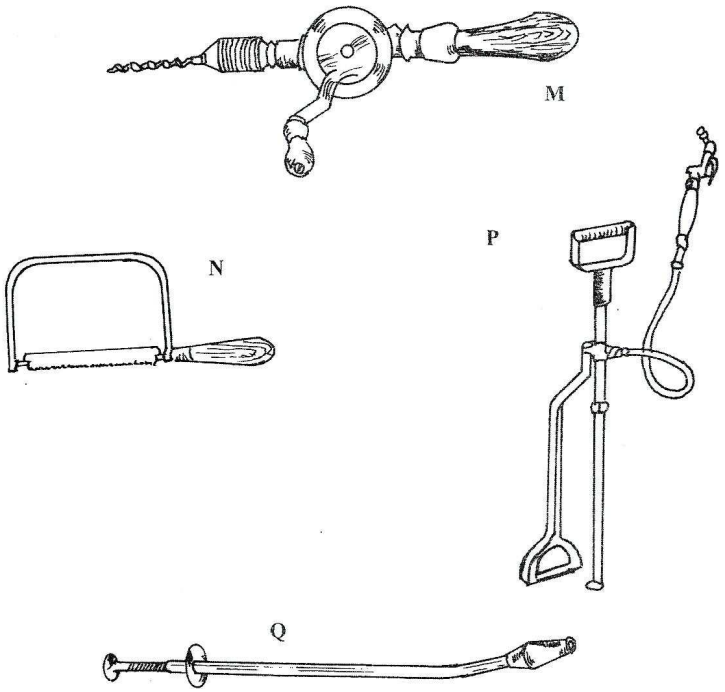
17. State two functions of a queen in a bee colony. . (1 mk)

18. State four maintenance practices carried out on a fish pond (2 mks)

SECTION B; 20 mks

Answer all the questions in this section in the spaces provided

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



a) Identify the tools labelled N and P.

N (1 mk)

P (1 mk)

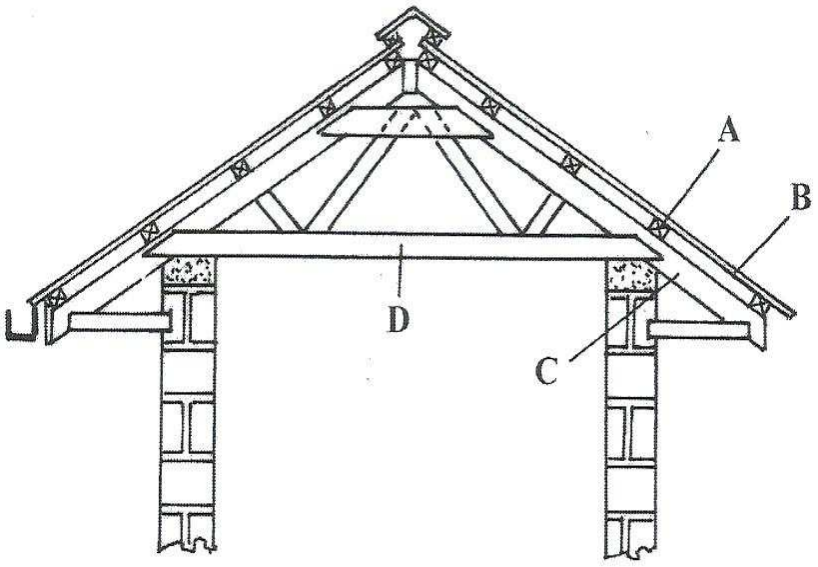
b) State one use of each of the tools labelled M and Q

M (1 mk)

Q (1 mk)

c) Explain one maintenance practice carried out on the equipment labelled P (1 mk)

20. The diagram below represents parts of a roof



a) Identify the parts labelled A and C (1 mk)

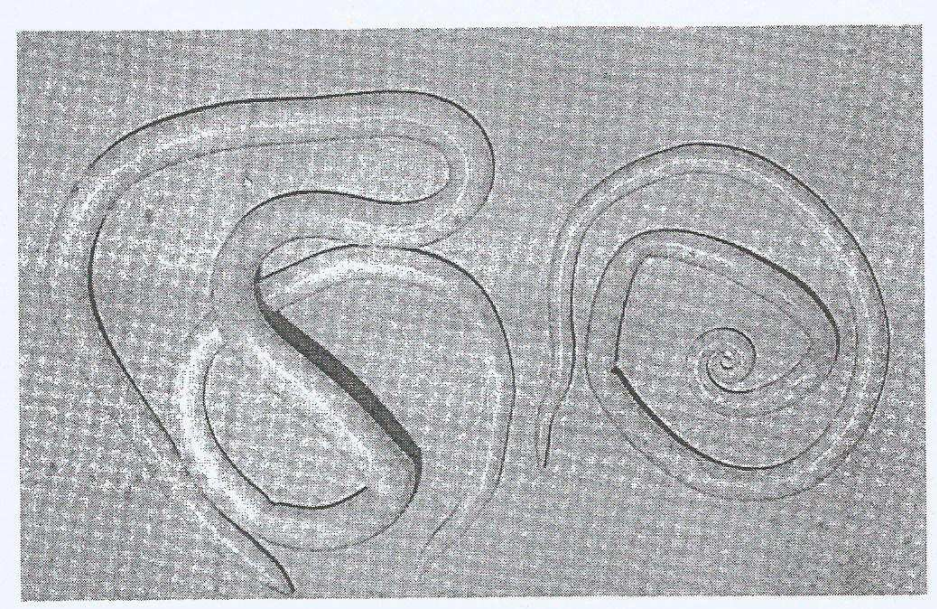
A (1 mk)

B (1 mk)

b) St ate two types of materials that may be used for the part labelled D (2 mks)

c) Give one disadvantage of using thatch for the part labelled B (1 mk)

21. The diagram below illustrates an internal parasite of livestock

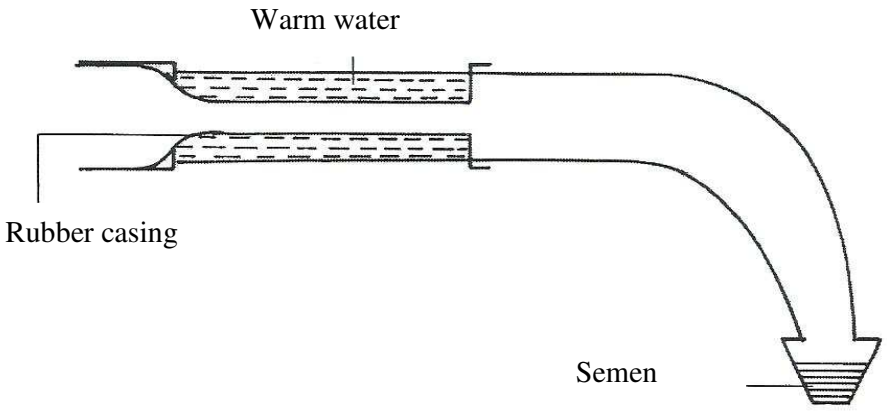


a) Identify the parasite (1 mk)

b) Name two common species of hate parasite illustrated (2 mks)

c) State two signs of worm infestation that may be observed in the dung of livestock (2 mks)

22. Below is a diagram illustrating an instrument used in cattle breeding



a) Identify the instrument (1 mk)

b) State the role of the instrument in cattle breeding (1 mk)

c) When would it be appropriate to serve a cow after the onset of heat? (1 mk)

d) Apart from the method in which the above instrument is used, name two

other methods of serving a cow (2 mks)

SECTION C: (40 mks)

Answer any TWO questions from this section in the spaces provided

23. (a) Give the functions of any five parts of a poultry egg. (10 mks)

(b) Describe the uses of five materials/equipment required for hand milking. (10 mks)

24. (a) Describe East Coast fever under the following sub-headings:

(i) livestock affected; (1 mk)

(ii) vector and causal organism; (2 mks)

(iii) signs of attack; (5 mks)

(iv) control measures. (2 mks)

(b) Describe the activities that take place during the digestion process in the rumen. (5 mks)

(c) Describe the management practices that ensure proper hygiene in a deep litter poultry house. (5 mks)

25. (a) State five signs of external parasite infestation in livestock. (5 mks)

(b) Explain five factors that should be considered when siting a farm store. (5 mks)

(c) Describe the cycle of a four stroke petrol engine. (10 mks)

AGRICULTURE

PAPER 2

NOVEMBER 2016

2 HOURS

SECTION A (30 MKS)

Answer all the questions in this section in the spaces provided

1. Name four rabbit brads reared in Kenya (2 mks)
2. Give the meaning of the following terms as used in livestock health
   a)Disease (1mk)
   b)Vaccination (1 mk)

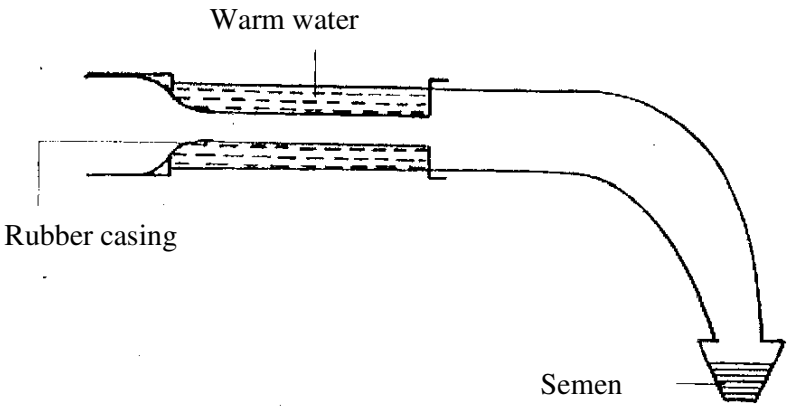
3. State four advantages of artificial calf rearing in dairy cattle management (2 mks)
4. List four materials that can be used in the construction of a Kenya Top Bar Hive (2 mks)
6. State four features of housing that help to control livestock diseases (2 mks)
7. Give four characteristics of a good site for a fish pond (2 mks)
8. Name four systems of a tractor engine (2 mks)
9. What is cow therapy? (2mks)
10. Give two reasons for steaming up in dairy cattle management (2 mks)
11. State four maintenance practices for a disc plough (2 mks)
12. List four preventive measures for livestock diseases (2 mks)
13. Give two reasons for using litter in poultry house (1 mk)
14. State four disadvantages of fold system in poultry rearing (2 mks)
15. State four practices that come immediately after complete milking in a milking shed (2 mks)

16. List four tools that are used when laying concrete blocks during construction of a wall (2 mks)

Section B (20 MKS)

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

17. Below is a diagram illustrating an instrument used in cattle breeding. Study it carefully and answer the questions that follow.



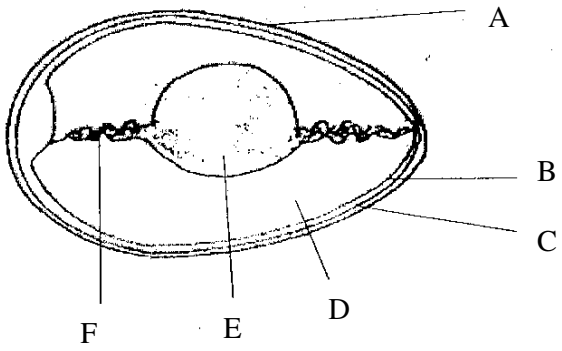
a) Identify the instrument (1 mk)

b) State the role of the instrument in cattle breeding (1 mk)

c)When should it be appropriate to serve a cow after onset of heat (1 mk

d) A part from the method in which the above instrument is sued, name two other methods of serving a cow (2mks)

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



a) Name the parts labeled B,C ,D, and F

B (½ Mk)

C (½ Mks)

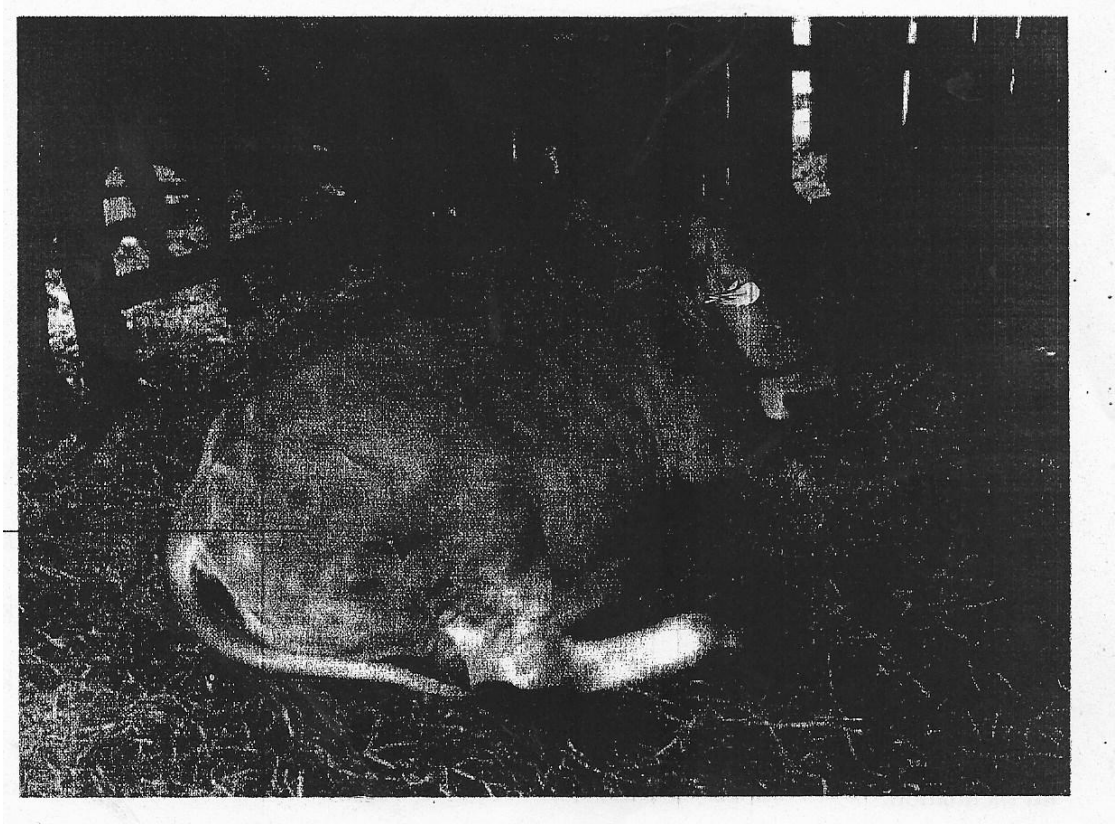
D (½ Mks)

F (½ Mks)

b) State two qualities of the part labeled A that should be considered when selecting eggs for incubation (1 mk)

c) What is the function of the part labeled E in a fertilized egg? (1 mk)

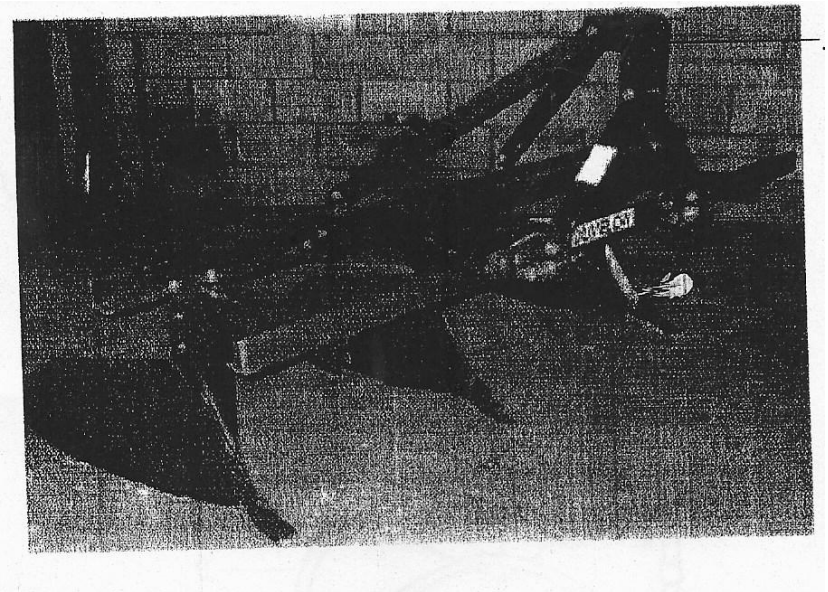
19. The photograph below illustrates a method of identification labeled x in cattle. Study it carefully and answer the questions that follow



a)Name the identification method (1mk)

b)Explain three disadvantages of the identification method (3 mks)

20. Below is a picture illustrating a farm implement. Study it carefully and answer the questions that follow.



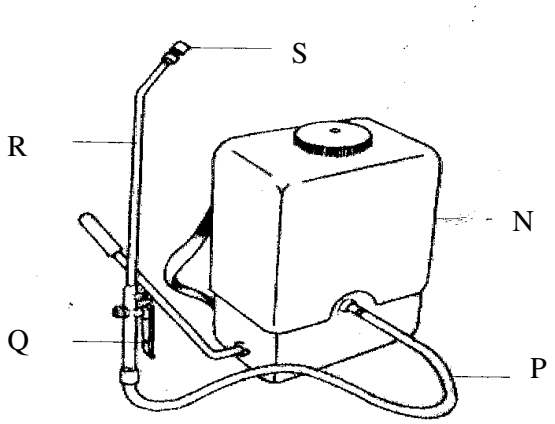
a) Identify the implement illustrated above (1 mk)

b) State the use of the

i) Implement on the farm (1mk)

ii) Part of the implement labeled J. (1 mk)

21. Below is a diagram of a knapsack sprayer. Study it carefully and answer the questions that follow



a) Name the parts labeled N, P, Q and R

N (½ Mk)

P (½ Mks)

Q (½ Mks)

R (½ Mks)

b)State one function of the part labeled S (1 mk)

SECTION C (40 mks)

Answer any two questions in this section in the spaces provided

22. (a) (i) Describe short-term tractor servicing. (10 mks)

(ii) Explain the maintenance practices that should be carried out on an ox-cart. (5 mks)

(b) State five indicators that can be observed on a goat to confirm sickness. (5 mks)

23. (a) Describe the uses of fences on the farm. (10 mks)

(b) Give five harmful effects of liver flukes in sheep rearing. (5 mks)

(c) Explain the factors considered when culling livestock. (5 mks)

24. (a) Describe ten physical characteristics a poultry farmer would use to identify poor layers from a flock of hens. (10 mks)

(b) (i) Outline three characteristics of clean milk. (3 mks)

(ii) Explain seven factors that affect milk composition in dairy farming. (7 mks)