

Agriculture paper 2 2011

SECTION A 30 marks)

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

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

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

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

4. Name one livestock disease that is transmitted by each of the following parasites:
 - (a) blue ticks; (½ marks)

 - (b) brown ear ticks; (½ marks)

 - (c) tsetse flies. (½ marks)

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

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

- (b) vaccination. (1 mark)
- 7 State three maintenance practices for a tractor battery. (1½ marks)
- 8 Name the type of breed into which each of the following breeds of cattle are classified:
- (a) Aberdeen Angus; (½ marks)
- (b) Guernsey; (½ marks)
- (c) Sahiwal; (½ marks)
- (d) Redpoll. (½ marks)
9. Give **two** ways in which proper nutrition helps to control livestock diseases. (1 mark)
- 10 List **four** categories of livestock diseases. (2 marks)
- 11 Name **two** breeding systems that can increase the frequency of **high milk** production genes in indigenous cattle. (1 mark)
- 12 Name **two** bloodless methods of castration in lambs. (1 mark)

13 Give the meaning of the following terms as **used in** livestock breeding:

(a) recessive gene; (1 mark)

(b) epistasis. (1 mark)

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

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

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

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

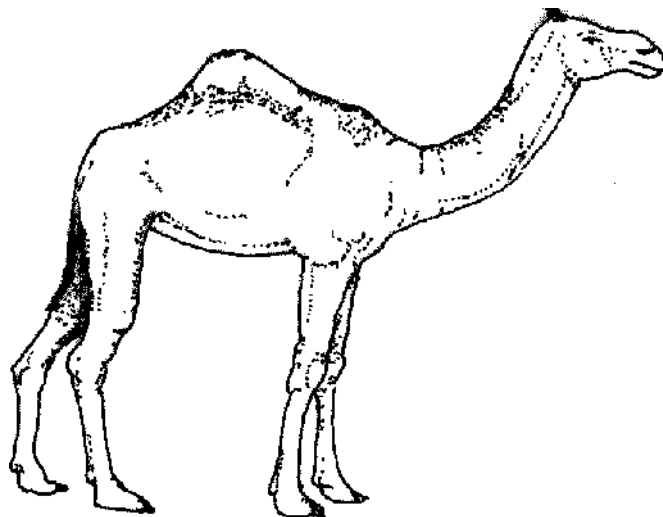
18 State three advantages of natural feeding in calf rearing. (1½ marks)

SECTION B (20 marks)

*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 marks)

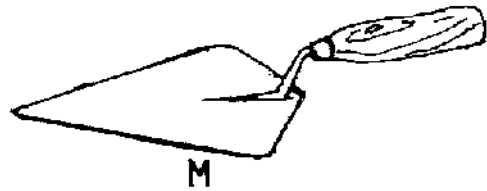
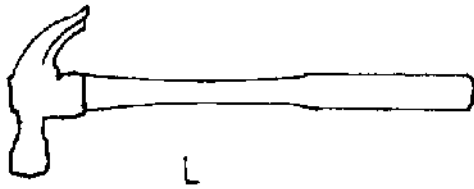
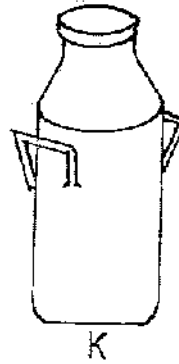
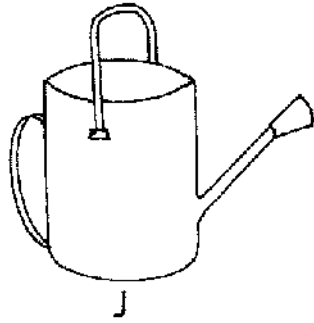
- 20 Below is an illustration of a camel. Study it and answer the questions that follow.



- (a) Identify the camel species illustrated above. ($\frac{1}{2}$ marks)
- (b) Name **three** products that farmers obtain from the camel species illustrated above. ($1\frac{1}{2}$ marks)

- (c) Give two reasons why the camel species illustrated above is able to survive in its natural habitat. (2 marks)

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



(a) Identify the tool / equipment labelled **J**, **K** and **M**. **K**.

J

($\frac{1}{2}$ marks)

K

($\frac{1}{2}$ marks)

M

($\frac{1}{2}$ marks)

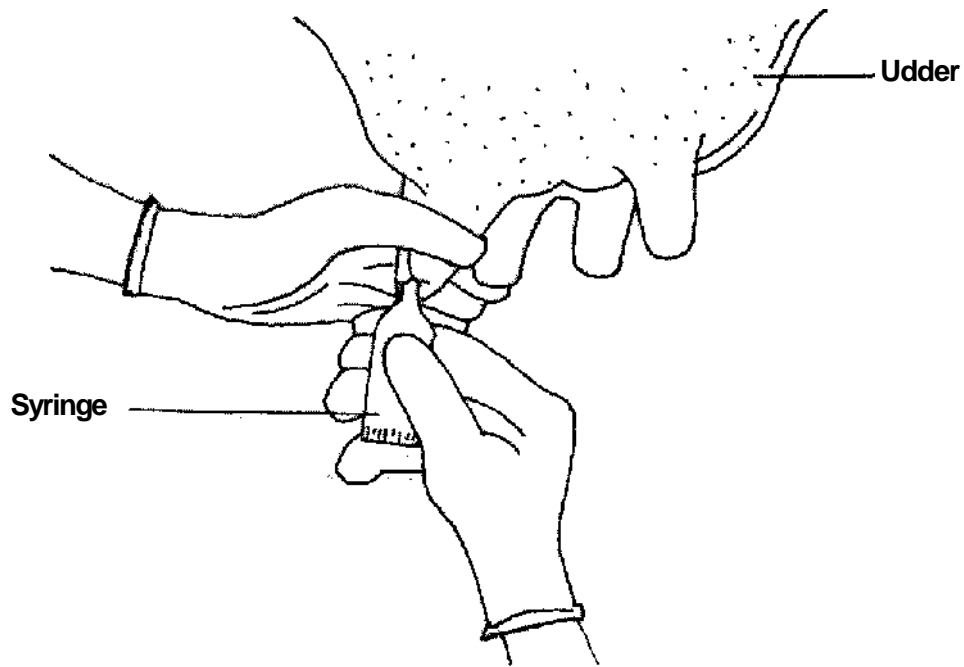
(b) State one use for each of the tool / equipment labelled **K** and **L**.

K (1 mark)

L (1 mark)

(c) Give two maintenance practices for the equipment labelled **K**. (1 mark)

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

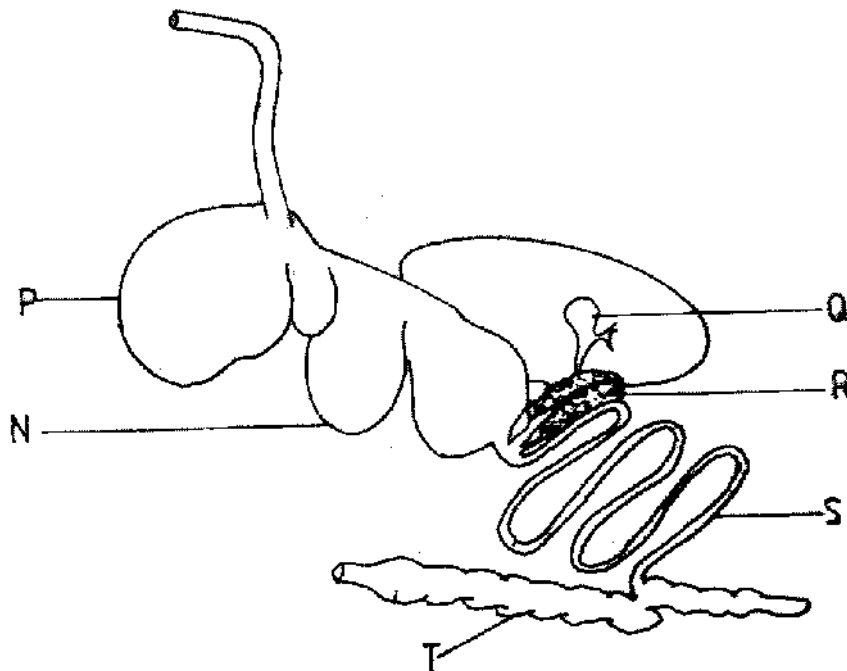


(a) Identify the practice. (1½ marks)

(b) At what stage is the practice carried out? (1½ marks)

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

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



- (a) Name the parts labelled N, P and Q.

N (1/2 marks)

P (1/2 marks)

- (b) State one function for each of the parts labelled S and T.

S (1 mark)

T (1 mark)

(c) Give one enzyme produced by each of the parts labelled **R** and **S**.

R ($\frac{1}{2}$ marks)

S ($\frac{1}{2}$ marks)

SECTION C (40 marks)

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

24 (a) Explain the factors considered when culling livestock. (5 marks)

(b) Describe poultry management under the following sub-headings:
(i) causes of stress; (8 marks)

(ii) control measures for cannibalism. (7 mark)

- 25 (a) Describe the feeding practices in artificial rearing of a dairy calf, (10 mark)
- (b) Describe Newcastle disease under the following sub-headings
- (i) causal organism; (1 mark)
- (ii) signs of infection; (7 mark)
- (iii) control measures. (2 marks)
26. (a) Describe the uses of fences on the farm. (10 marks)
- (b) Give five harmful effects of liver flukes in sheep rearing. (5 mark)
- (c) State the differences between a diesel engine and a petrol engine. (5 mark)