

K.C.S.E YEAR 2010 PAPER 1

SECTION A (30 marks)

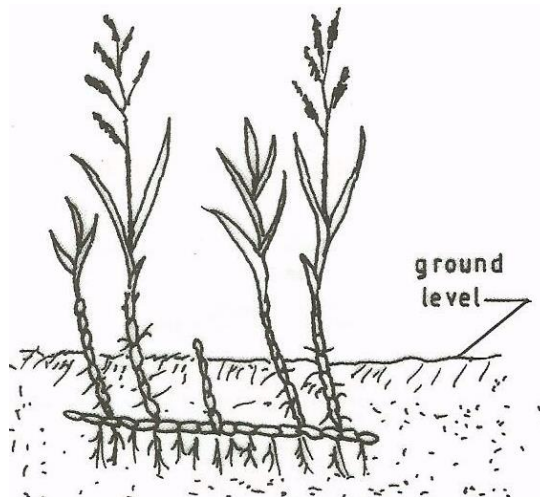
Answer *all* the questions in this section in the spaces provided.

- 1 Give **two** disadvantages of intensive system of fanning. (1 mark)
- 2 List **four** methods of farming. (2 marks)
- 3 Give the meaning of the following terms:
 - (a) Nitrogen fixation into the soil; (1 mark)
 - (b) Phosphorus fixation in loss of soil fertility. (1 mark)
- 4 Give **four** reasons-for keeping livestock health records on the farm. (2 marks)
- 5 Explain the relationship between scarcity and choice as used in agricultural economics. (2 marks)
- 6 State two reasons for land fragmentation in Kenya. (1 mark)
- 7 Give **four** advantages of individual owner operator tenure system as practised in Kenya. (2 marks)
- 8 State **four** features that should be considered when choosing water pipes for use on the farm. (2 marks)
- 9 Give **four** reasons for treating water for use on the farm. (2 marks)
- 10 Name **four** statutory boards that are involved in the marketing of crop produce in Kenya. (2 marks)
- 11 State **four** marketing functions of Kenya Co-operative Creameries (K.C.C.). (2 marks)
- 12 Give **two** reasons for carrying out each of the following operations in land preparation:
 - (a) rolling; (1 mark)
 - (b) levelling. (1 mark)
- 13 Name **three** recommended practices that should be carried out when clearing the bush during land preparation. (1 ½ marks)
- 14 State **five** advantages of zero grazing. (2 ½ marks)
- 15 Give **four** factors that would determine the stage at which a crop is harvested. (2 marks)
- 16 Name **two** classes of weeds on the basis of each of the following: (1 mark)
 - (a) growth cycle; (1 mark)
 - (b) plant morphology (1 mark)

SECTION B (20 marks)

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

Below is a diagram of a weed. Study the diagram carefully and answer the questions that follow.



- (a) Identify the weed illustrated above

(1/2 mark)



- (b) Why is the weed illustrated above difficult to control? (1 marks)
 (c) State **four** ways in which the weed can be controlled in a field of maize. (2 marks)

18. The table below shows pH values of different soil samples. Study it and answer the questions that follow.

| <u>Soil Sample</u> | <u>pH value</u> |
|--------------------|-----------------|
| S ₁ | 3 |
| S ₂ | 4 |
| S ₃ | 5 |
| S ₄ | 6 |
| S ₅ | 7 |
| S ₆ | 8 |
| S ₇ | 9 |
| S ₈ | 10 |

- (a) Which soil sample has the highest acidity? (1/2mark)
 (b) State **two** ways in which the pH value of sample S can be lowered. (1 mark)
 (c) Which of the above soil samples is suitable for growing tea? (1/2 mark)

19 Explain how agro forestry tree seeds should be prepared after collection in readiness for planting. (4 marks)

20. (a) The diagrams below represent two ways in which a crop was pruned. Study them carefully and answer the questions that follow.



- (i) Which diagram represents the correct way of pruning? (/i mark)
 (ii) Give a reason for your answer in (i) above. (1 mark)
 (b) State **two** ways in which pruning assists in controlling crop diseases. (1 mark)

21 On 1st January 2009, Kaburu Farm started farm operations with Ksh 30,000 cash. During the month, the farm made the following transactions. Study the transactions and prepare a cash analysis for Kaburu Farm for the month of January. (5 VT. marks)

| <u>Date</u> | <u>Transaction</u> | <u>Amount (Ksri)</u> |
|-------------|---|----------------------|
| 05/01/09 | Livestock sales | 80,000 |
| 08/01/09 | Crop sales | 50,000 |
| 15/01/09 | Bought seed for planting | 7,500 |
| 20/01/09 | Paid K.F.A. for fertilizer | 16,400 |
| 25/01/09 | Bought livestock feeds | 50,000 |
| 30/01/09 | Paid wages for planting & weeding | 56,000 |
| 31/01/09 | Received cash from K.C.C. for milk delivery | 120,000 |
| 31/01/09 | Paid transport charges for milk delivery | 9,000 |

22 (a) What do the figures 18:46:10 on a fertilizer bag represent? (11 marks)



- (b) Calculate the quantity of filler materials in the fertilizer in (a) above. (1 mark)

SECTION C (40 marks)

Answer any two questions in this section in the spaces provided after question 25.

- 23 (a) Explain eight factors that can encourage soil erosion. (8 marks)
- (b) Describe the seven management practices that should be carried out on a vegetable nursery after sowing seeds until the seedlings are ready for transplanting. (7 marks)
- (c) State **five** soil factors that should be considered when selecting a crop to grow in an area
- 24 (a) Outline **five** ways in which high temperature affects agricultural production in Kenya. (5 marks)
- (b) (i) Explain **four** precautions that should be observed when harvesting cotton. (4 marks)
- (ii) Describe the harvesting of sugar cane. (3 marks)
- (c) Explain **eight** factors that should be considered when planning to set up a farm business. (8 marks)
- 25 (a) Explain **six** physical methods that can be used to control crop pests on the farm. (6 marks)
- (b) Describe the production of bulb onions under the following sub-headings:
- (i) field management; (4 marks)
- (ii) harvesting. (3 marks)
- (c) Explain **seven** factors that influence seed rates in crop production. (7 marks)



K.C.S.E YEAR 2010 PAPER 2

SECTION A (30 marks)

Answer all the questions in this section in the spaces provided

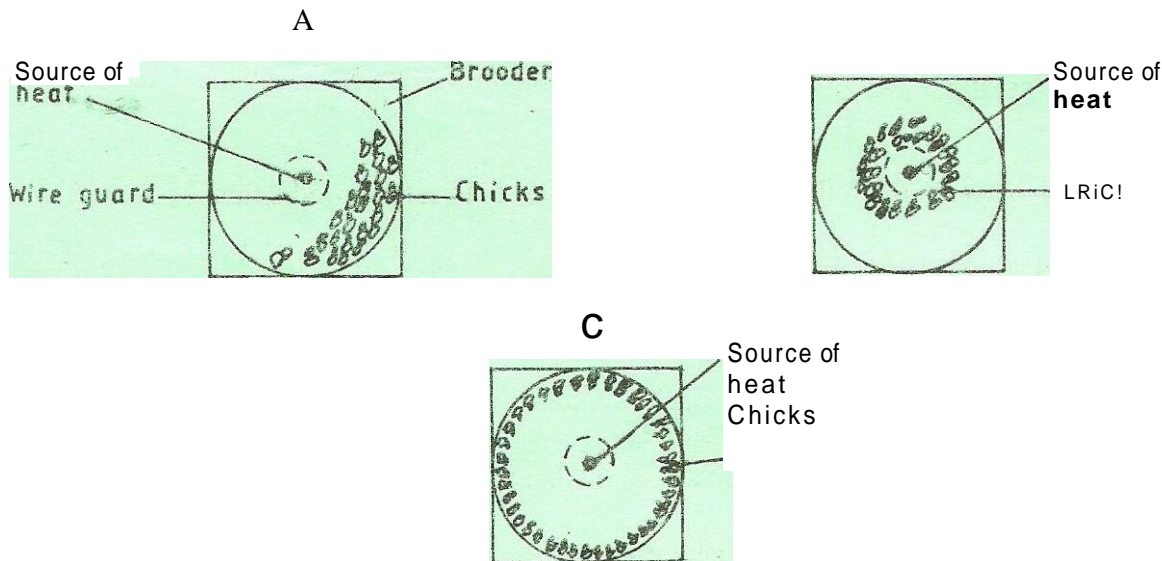
- 1 Name the causal agent of anaplasmosis disease in cattle, (1/2 mark)
- 2 List four materials that can be used in constructing a Kenya Top Bar Hive. (2 marks)
- 3 (a) Name two breeds of dairy cattle that originated from the Channel Islands. (1 mark)
(b) Give the distinguishing colour for each of the following breeds of livestock: (1/2 mark)
 - (i) chinchilla rabbit; (1/2mark)
 - (ii) toggenburg goat. (2 marks)
- 4 State four reasons for castration in pig production. (2 marks)
- 5 State **four** characteristics of roughage livestock feeds. (2 marks)
- 6 State two functions of the crop in poultry digestive system. (1 mark)
- 7 State **four** roles of worker bees in a colony. (2 marks)
- 8 Give **four** reasons for controlling livestock diseases. (2 marks)
- 9 State **two** control measures for fowl pox disease in poultry.
- 10 State **one** function for each of the following:
 - (a) shovel; (2. mark)
 - (b) strip cup. (1 1/2 mark)
- 11 Give **three** reasons for carrying out maintenance practices on a mower (1 1/2 marks)
- 12 Give **three** limitations of using solar power on the farm. (1/2 marks)
- 13 Why is it important to have a thermostat on a cooling system of a tractor engine? (1 mark)
- 14 Give two advantages of using a disc plough over a mouldboard plough in primary cultivation. (1 mark)
- 15 Name **four** tools that are used when laying concrete blocks during construction of a wall. (2 marks)
- 16 Why is it necessary to have guard rails in a farrowing pen? (1 mark)
- 17 Give **two** reasons for having a footbath in a cattle dip. (1 mark)
- 18 Distinguish between the following practices as used in livestock production;
 - (a) crutching and ringing in sheep management; (2 marks)
 - (b) cropping and harvesting in fish farming. (2 marks)
- 19 Give three ways in which infectious diseases can spread from one livestock to another within a farm. (1 Vi marks)



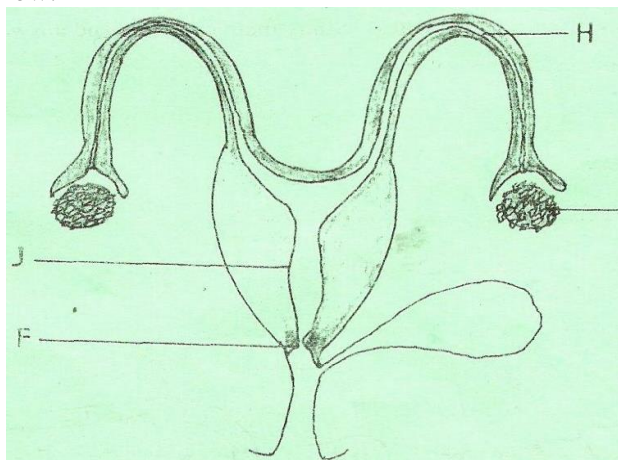
SECTION B (20 marks)

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

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



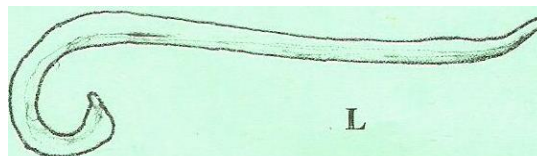
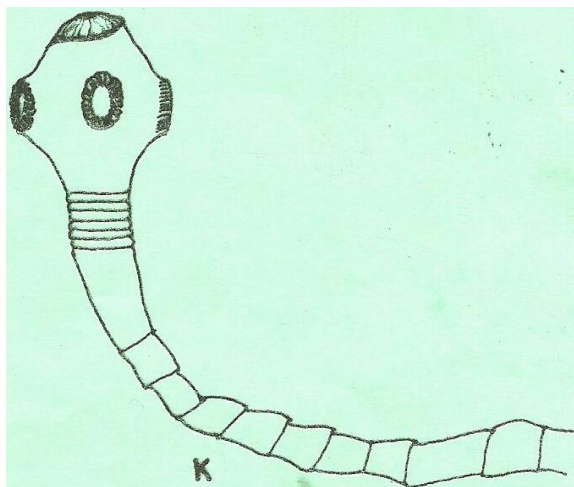
- (a) Explain the cause of behaviour observed in chicks for each of the illustrations labeled A, B and C. (3 marks)
- (b) Give a reason for making the brooder wail round in shape. (1 mark)
- 21 The diagram below shows the reproductive system of a cow. Study it carefully and answer the questions that follow.



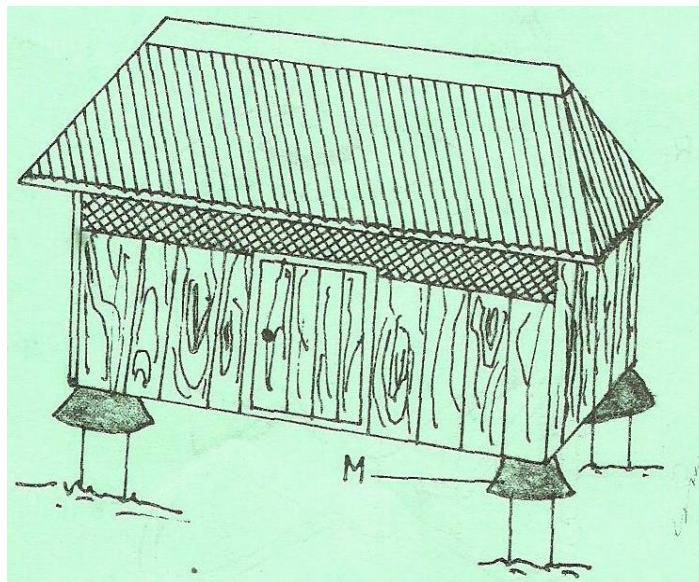
- (a) Name the parts labelled F and H, (2 marks).
- (b) Give **two** functions of the part labelled G (2 marks).
- (c) **Give** the role of the part labelled J. (2 marks)



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



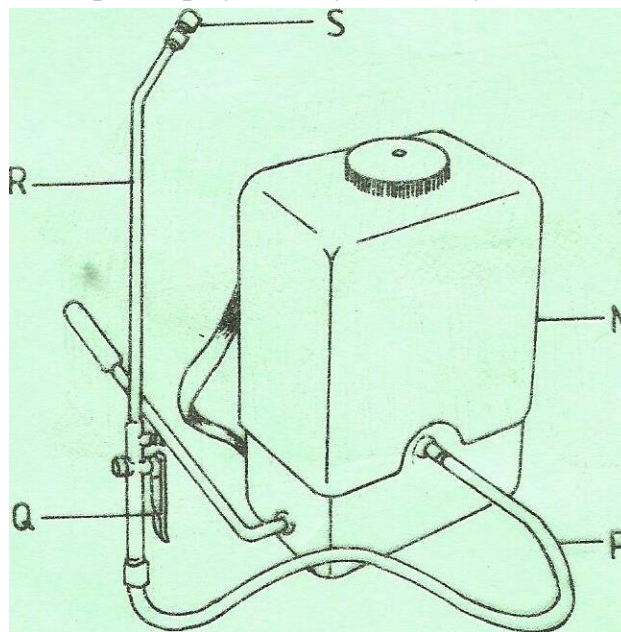
- (a) Identify the parasites labelled K and L.
(b) Name the developmental stage of the parasite labelled K in cattle muscles. (1/2 mark)
(c) Outline the procedure of handling a heifer when administering a liquid deworming drug to control the parasites illustrated above. (2 1/2 marks)
- 23 Below is a diagram of a farm structure for storing grains. Study it carefully and answer the questions that follow.



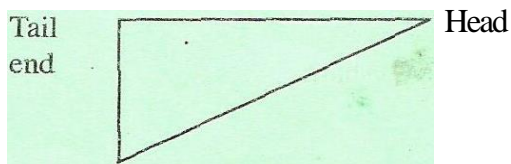
- (a) Identify the farm structure illustrated above.
(b) State the function of the part labelled M. (1/2 mark)
(c) State two maintenance practices that should be carried out on the farm structure illustrated above in readiness for grain storage. (1 mark)



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 marks)
 (b) State one function of the part labelled S(1 mark)
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 mark)
 (b) Give an example of a breed in (a) above. (1/2 mark)
 (c) State four physical characteristics of the type of breed identified in (a) above.(2 marks)

SECTION C (40 marks)

Answer any **two** questions from this section in the spaces provided after question 28.

- 26 (a) Outline **five** advantages of artificial insemination in cattle management. (5 marks)
 (b) Describe **ten** signs of trypanosomiasis (Nagana) disease in livestock. (10 marks)
 (c) Explain **five** functions of water in nutrition. (5 marks)
- 27 (a) State the function of any **six** parts of a zero grazing unit in dairy farming. (6 marks)
 (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 marks)
 (ii) power take off (P.T.O) shaft; (2 marks)
 (iii) hydraulic system. (2 marks)
 (c) Explain **eight** ways in which ticks can be controlled on a livestock farm. (8 marks)
- 28 (a) Describe **ten** physical characteristics a poultry farmer would use to identify poor layers from a flock of hens. (10 marks)
 (b) (i) Outline **three** characteristics of clean milk. (3 marks)
 (ii) Explain **seven** factors that affect milk composition in dairy fanning. (7 marks)

