3.15   AGRICULTURE (443)

3.15.1 Agriculture Paper 1 (443/1)
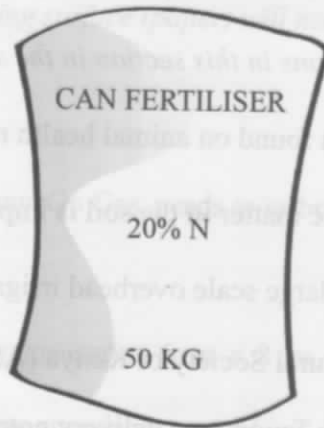
SECTION A (30 marks)

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

1.   State *four* pieces of information found on animal health records.   (2 marks)

2.   State *four* ways in which organic matter in the soil is important.   (2 marks)

3.   Name *four* equipment used for large scale overhead irrigation.   (2 marks)

4.   State *four* functions of Agricultural Society of Kenya (ASK).   (2 marks)

5.   State *four* pieces of information found on a delivery note.   (2 marks)

6.   Name *four* implements used for primary cultivation.   (2 marks)

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

8.   State *four* reasons for ridging in potato production.   (2 marks)

9.   Distinguish between each of the following pair of terms as used in crop production:

    (a)   thinning and roguing.   (1 mark)

    (b)   seedling bed and nursery bed.   (1 mark)

10. Apart from tillage, name *four* methods farmers use to control weeds.   (2 marks)

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

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

13. State *four* agents of soil erosion.   (2 marks)

14. State *four* effects of late defoliation in pasture utilisation.   (2 marks)

15. State *four* agricultural practices that pollute surface water sources.   (2 marks)

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

16.   The diagram below shows a bag of Calcium Ammonium Nitrate fertiliser.

CAN FERTILISER

20% N

50 KG
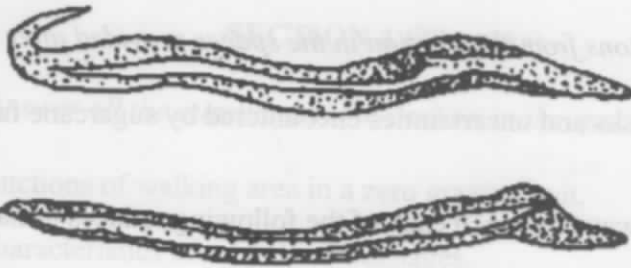
(a)   Classify the fertiliser.   (1 mark)

(b)   Explain the effect of applying the above fertiliser on soil pH.   (1 mark)

(c)   A farmer is advised to apply 50 kg of nitrogen per hectare. How many bags of the above fertiliser will this farmer require for one hectare? Show your working.
                                                                                                                         (3 marks)

17.   The diagram below shows a nursery practice carried out soon after tree seedlings have emerged.

(a)   Identify the practice.   (1 mark)

(b)   Give *two* reasons for carrying out the above practice.   (2 marks)

(c)   State *one* precaution that should be observed in the practice illustrated in relation to the direction of the sun.   (1 mark)

(d)   Name the type of nursery bed illustrated.   (1 mark)

18. The diagram below shows a soil borne pest that attacks plant roots.

(a) Identify the pest. (1 mark)

(b) State *two* symptoms of attack by the pest in tomato production. (2 marks)

(c) State *two* control measures for the pest. (2 marks)

19. The table below shows a farm record for Mwamuzi Farm.

RECEIPTS			ISSUES			
DATE	COMMODITY/ITEM	QUANTITY	DATE	ISSUED TO	QUANTITY	BALANCE IN STOCK

(a) Identify the farm record. (1 mark)

(b) The farm received 20 bags of DAP fertiliser from Milimani Agrovet on 07/07/2018 and another 20 bags on 21/07/2018. On 28/07/2018, a gardener took eight bags of DAP and used it to plant potatoes on the farm. Enter this information in the farm record illustrated above. (3 marks)

(c) Give *one* reason for keeping the farm record illustrated above in farm accounting. (1 mark)

SECTION C (40 marks)

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

20. (a) Describe the risks and uncertainties encountered by sugarcane farmers in Kenya.

    (7 marks)

    (b) Explain *three* ways in which each of the following reduces tomato production:

    (i) inadequate rainfall; (3 marks)

    (ii) low temperature; (3 marks)

    (iii) strong wind. (3 marks)

    (c) Give *four* reasons why farmers prefer using tillage to control weeds. (4 marks)

21. (a) Describe how maize is planted in the field. (7 marks)

    (b) Explain *seven* factors that determine spacing in bean production. (7 marks)

    (c) Give *six* reasons why tree seedlings should be established using a nursery. (6 marks)

22. (a) Describe how a plucking table is maintained in a tea plantation. (5 marks)

    (b) Describe how onion seedlings are transplanted. (7 marks)

    (c) Describe *eight* types of micro-catchments used in water conservation. (8 marks)