

KCSE KNEC AGRICULTURE 2011
Agriculture 443/1
PAPER 1

SECTION A (30 Marks)

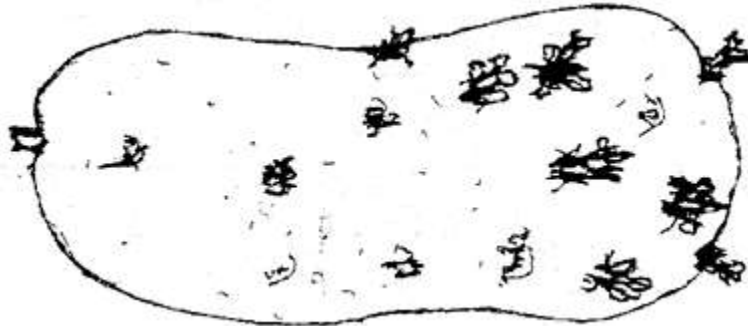
Answer all the questions in this section in the spaces provided

1. (a) Name two field management practices that are carried out to obtain optimum plant population in a crop field (1mk)
(b) Explain how each of the practices named in (a) above achieves optimum plant population (1mk)
2. Give two examples for each of the following types of costs incurred in broiler production
(a) Variable cost (1mk)
(b) Fixed cost (1mk)
3. State four disadvantages of mono cropping in crop production (1mk)
4. Give three reasons for early seedbed preparation (1½mks)
5. State two ways in which crop rotation controls weeds (1mk)
6. Outline four qualities of a mother plant from which vegetative propagation materials should be obtained (2mks)
7. Give three factors that should be considered when choosing the type of labour to use on the farm (1½mks)
8. State the use of each of the following in farm accounting
(a) Balance sheet (½mk)
(b) Inventory (½mk)
(c) Cash book (½mk)
9. State four functions of Agricultural Society of Kenya (A.S.K) (2mks)
10. How does leaching lead to loss of soil fertility (½mk)
11. Give two reasons for imposing quarantine on imported planting materials (1mk)
12. State four ways of controlling bean anthracnose disease (2mks)
13. List four post harvest practices that are carried out in maize production (2mks)
14. Name two types of non-competitive markets (1mk)
15. Name four settlement schemes that the Kenyan Government started as a result of the success of the Million Acre Scheme (2mks)
16. Give a weed for each case which has the following effect on cattle
(a) Poisoning (½mk)
(b) Tainting milk when eaten before milking (½mk)
17. Apart from training and extension services, state four other agricultural support services the Kenyan Government provides to a maize farmer (2mks)
18. State three methods of harvesting trees in agroforestry (1½mks)
19. Give three maintenance practices for trees in agroforestry (1½mks)

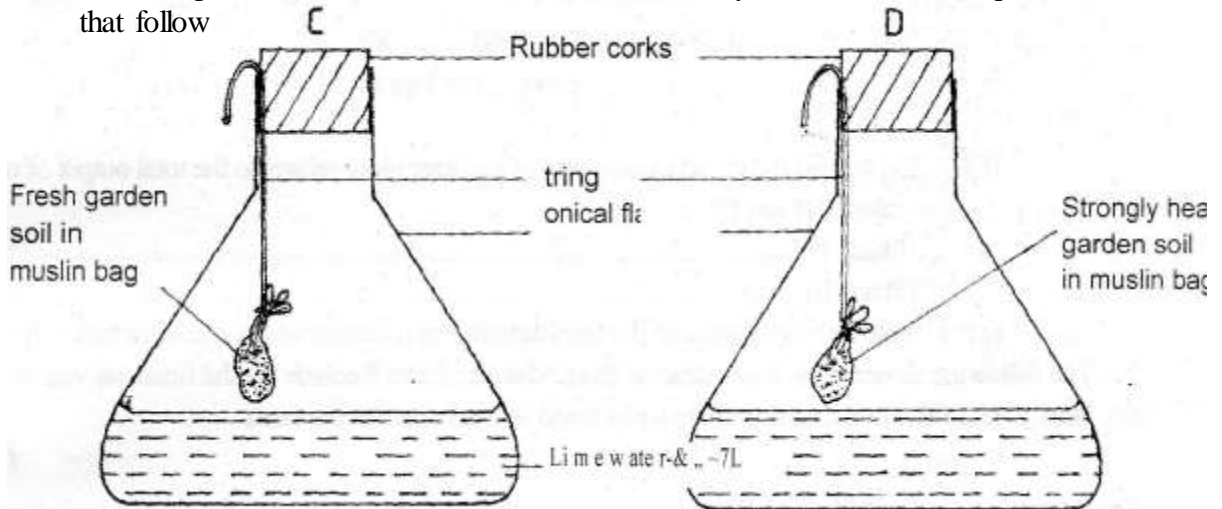
SECTION B (20 Marks)

Answer all the questions in this section in the spaces provided

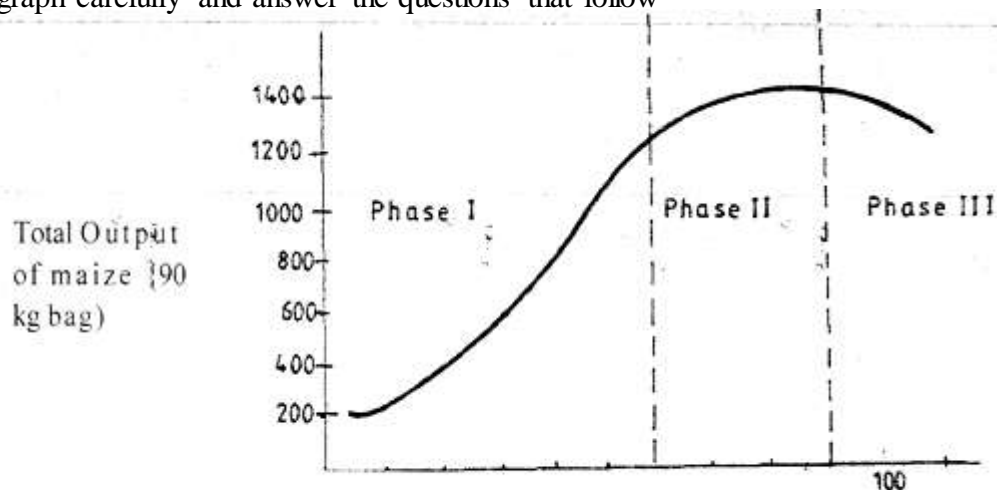
20. The diagram below illustrates a seed potato prepared for planting. Study it carefully and answer the questions that follow



- (a) Name the practice used in preparing the seed potato above for planting (1mk)
 (b) Describe the procedure followed in preparing seed potatoes for planting (3mks)
21. The diagrams below show a set up of an experiment to study an aspect of soil. The set up was left undisturbed for five hours. Study it and answer the question that follow



- (a) What was the aim of the experiment?
 (b) State one observation that was made in each of the flasks labeled C and D
 (c) Give a reason for each of your answers in (b) above
22. Below is a graphical representation of a law in agricultural economics. Study the graph carefully and answer the questions that follow



(b) Explain how each additional unit of fertilizer input relates to the total output of maize in phase II and III

Phase II (1mk)

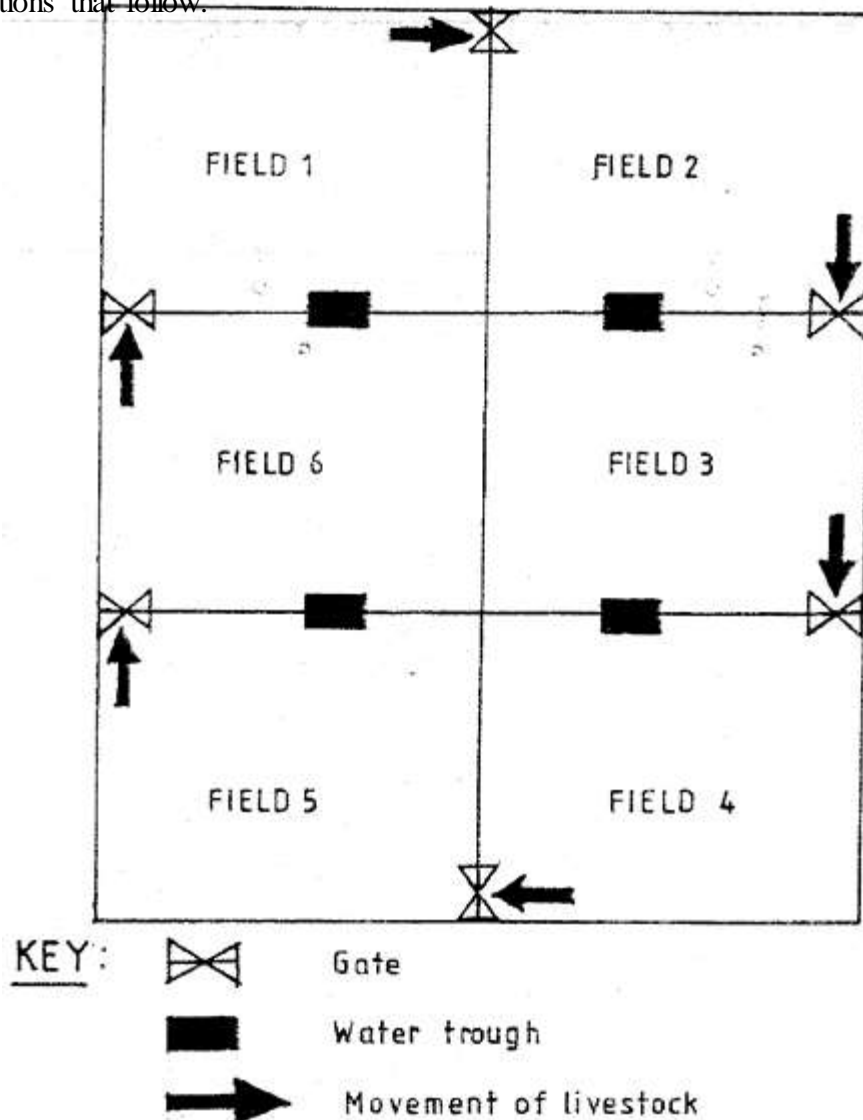
Phase III (1mk)

(c) State the importance of the law identified in (i) above to the maize farmer. (1mk)

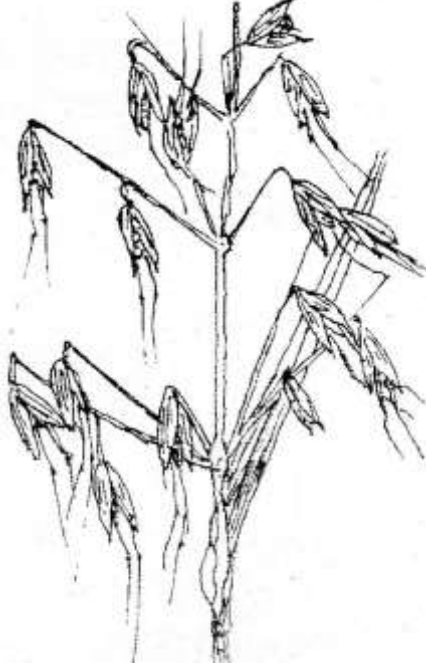
23. The following information was extracted from Makueni Farm Records for the financial year ending on 30th June 2009. Study it and prepare a profit and loss account for the farm. (3mks)

Rent received	Kshs. 10000
Egg sale	Kshs. 60000
Repair of tractor	Kshs. 30000
Opening valuation	Kshs. 80000
Interest on Bank loan	Kshs. 20000
Tax paid	Kshs. 40000
Closing valuation	Kshs. 90000
Purchase of farm inputs	Kshs. 90000
Debts receivable from farmers co-op society	Kshs. 100000
Maize sales	Kshs. 55000

24. The diagram below illustrates a grazing system. Study it carefully and answer the questions that follow.



- (a) Identify the grazing system illustrated above
(b) State five advantages of the grazing system illustrated above
25. The diagram below is an illustration of a weed. Study it and answer the questions that follow.



- (a) Identify the weed
(b) State two harmful effects of the weed illustrated above

SECTION C (40 Marks)

Answer all the questions in this section in the spaces provided

26. (a) Describe how water is treated to remove solid impurities (5mks)
(b) Give a reason for each of the farm records kept on a dairy farm (5mks)
(c) Describe how the production of cabbages under the following sub-heading
(i) Seedbed preparation (3mks)
(ii) Transplanting of seedlings (7mks)
27. (a) Describe the effects of pests on maize in the field (6mks)
(b) (i) Describe the procedure of harvesting pyrethrum (4mks)
(ii) Explain the precautions that should be observed during the harvesting of pyrethrum (3mks)
(c) Describe the cultural methods of controlling soil erosion (7mks)
28. (a) Explain five ways in which biotic factors influence crop production in agriculture (5mks)
(b) Describe how the stem cuttings for propagating tea are prepared (9mks)
(c) Describe the properties of nitrogenous fertilizers (6mks)