

MURANG'A SOUTH SUBCOUNTY MULTILATERAL FORM 4 EXAM - 2016

443/1

AGRICULTURE

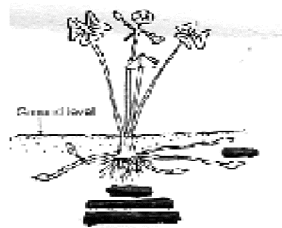
PAPER 1

1. Differentiate between
 - (i) Arable and mixed farming (1mk)
 - (ii) Apiculture and aquaculture (1mk)
2. Give **three** advantages of practising agroforestry (1½mk)
3. Name **three** biotic factors that affect agriculture negatively (1½mk)
4. State **two** farming activities that may cause water pollution in the farm (1mk)
5. Give **two** types of water pumps (1mk)
6. Give **two** reasons why staking as a field management practice should be carried out in some crops (1mk)
7. What does the term "close season" in crop production mean? (1mk)
8. Define the following terms as used in crop production (1mk)
 - (a) Roguing
 - (b) Gapping..... (1mk)
9. Give **two** advantages of planting cereal crops in rows instead of broadcasting (1mk)
10. Give a reason for carrying out each of the following practices in a tomato nursery (2mks)
 - (i) Pricking out
 - (ii) Hardening off
11. Give **four** qualities of a mother plant that should be considered when selecting vegetative materials for planting (2mks)
12. State any **four** non-chemical methods of controlling storage pests in a maize granary (2mks)
13. State **four** factors that effect the effectiveness of a pesticide (2mks)
14. Give **four** ways of controlling weeds in a field of maize (2mks)
15. Outline **four** merits of concession or company form of land tenure (2mks)
16. Define the term
 - (a) Opportunity cost (1mk)
 - (b) Organic farming (1mk)
17. (a) State **two** precautions that should be observed in harvesting cotton (1mk)
 (b) List **two** methods of plucking tea (1mk)
18. State **four** benefits of budgeting to a farm manager (2mks)

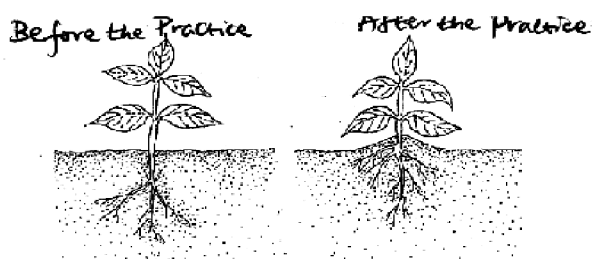
SECTION B (20 MKS)

Answer all questions in this section in the spaces provide

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



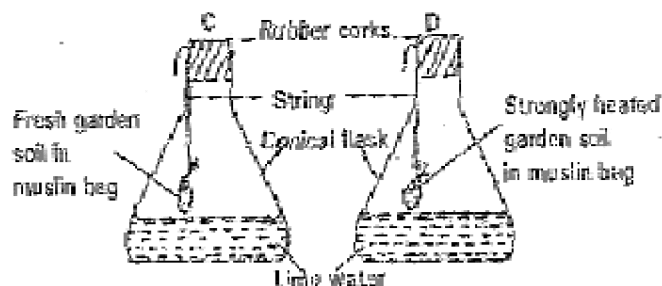
- a) Identify the weed illustrated above..... (1mk)
 - b) Explain why the weed illustrated above is difficult to control (1mk)
 - c) Name **two** mechanical ways of controlling the weed (2mks)
 - d) What is "Integrated weed management" (1mk)
20. The diagram below shows a practice carried out on various crops on the farm. Study them carefully and answer the questions that follow



- (a) Identify the farm practice represented by B (1mk)
- (b) State the importance of the above practice in the following crops (4mks)

- (i) Maize
 (ii) Irish Potatoes
 (ii) Tobacco.....
 (iv) Groundnuts

21. The diagram below shows a set up of an experiment to study an aspect of soil.. The set up was left undisturbed 5 hrs . Study it and answer the questions that follows:



- (a) What was the aim of the experiment (1mk)
 (b) State one observation that was made in each of the flasks labelled C and D (2mks)
 (c) Give a reason for each of your answer in (b) above (2mks)
22. The table below shows output of maize at various quantities of D.A.P fertilizer application per hectare. Study it and answer the questions that follows :-

Fixed Input (land)	Variable input (DAP in 30kg bag)	Total product maize in 90kg (bags)	Average product (maize in 90kg (bags)	Marginal product (maize in 90kg bags)
1	0	2	0	
1	1	5		
1	2	14		
1	3	21		

- (a) Fill in the blank spaces in the table above to show the average product (AP) and marginal product (MP) values
 (b) Give **two** variable costs that the farmer whose production is illustrated above incurred (2mks)

SECTION C (40marks)

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

- 23 (a) Describe the production of beans under the following sub-heading
 (i) Common varieties in Kenya (2mks)
 (ii) Selection and preparation of planting materials (3mks)
 (iii) Planting (3mks)
 (iv) Weeding (2mks)
 (b) (i) Explain **five** advantages of crop rotation (5mks)
 (ii) Explain **five** factors that may influence spacing of crops (5mks)
- 24 (a) Describe the safety precautions taken when using pesticides on the farm (8mks)
 (b) Describe the process of silage making using a ground silo. (7mks)
 (c) Explain **five** principles that govern the running of co-operative societies (5mks)
- 25 (a) Describe the process involved in water treatment using the chemical treatment system (12mks)
 (b) Explain **eight** factors that encourage soil erosion (8mks)