

MAKUENI BOYS

F4 AGRICULTURE AUGUST ASSIGNMENT 2020

SECTION A (30 marks)

Answer ALL questions in this section on the spaces provided.

1. State four ways by which plant nutrients are lost.
(2 marks)
2. Explain the meaning of the term production function.
3. Name four product relationships in Agriculture.
(2 marks)
4. State four uses of a green house in a farm.
(2 marks)
5. Name four farming practices farmers can use to achieve minimum tillage.
(2 marks)
6. Outline four importance of mulching in Agricultural land.
(2 marks)
7. Name four sources of Agricultural credit.
(2 marks)
8. Give four ways of harvesting water in the farm.
(2 marks)
9. Name the form in which the following nutrients are absorbed by plants.
(2 marks)
 - i) Nitrogen
 - ii) Phosphorus
 - iii) Sulphur
 - iv) Calcium
10. State four sites Agroforestry trees can be planted in the farm.
(2 marks)
11. Outline four factors affecting the efficiency of pesticides.
(2 marks)
12. Name a crop that require the following training.
 - a. Propping
 - b. Threshing
 - c. Staking.....

(½ marks)

(½ marks)

(½ marks)
13. List four sources of organic matter in the soil.
(2 marks)
14. Give advantages of tissue culture.
15. Outline four factors that influence the supply of casual labour on the farm.
(2 marks)
16. State three properties of soil that are influenced by its texture.
(1½ marks)

SECTION B

Answer all questions in the spaces provided.

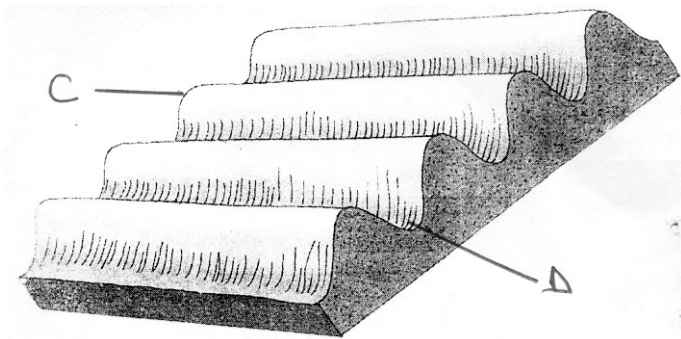
17. Below are weeds. Study them and carefully answer the questions that follow.



Identify weeds labeled S,T,U and P.
(4 marks)

(4 marks)

18. The figure below illustrates a tertiary operation. Study it and answer the question that follow.



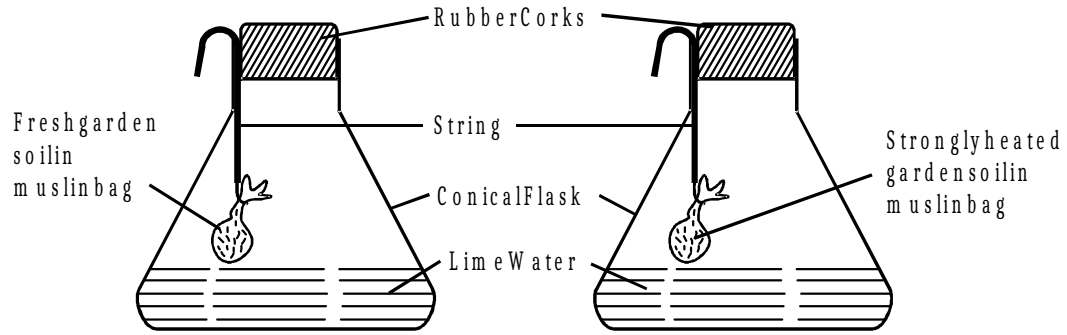
a. Identify the tertiary operation illustrated above.
(1 mark)

b. Name the part labeled C and D.
(2 marks)

c. Name two other tertiary operations that can be carried out in the farm apart from the one shown above.
(2 marks)

19. A form one student set up experiment as shown below to study an aspect of soil. The set up was left for six hours. Study it and answer the questions that follow.

A B



- a. What was the aim of the experiment?
(1 mark)
 - b. State two observations that were made in each of the flasks C and D.
(2 marks)
 - c. Why was the soil in flask D strongly heated?
(1 mark)
 - d. Outline ways in which soil living organisms affect agricultural production.
(2 marks)
20. The table below shows the population and gross domestic products of countries A and B.

| Country | Gross Domestic product (millions) | Population (millions) |
|---------|-----------------------------------|-----------------------|
| A | 1800 | 36 |
| B | 1200 | 15 |

- a. Calculate the Per Capita income for each country. Show your working.
(2 marks)
- b. Which of the following two countries is more developed economically?
(½ mark)
- c. How can agriculture increase the gross Domestic product of a country?
(½ mark)

SECTION C 40 marks)

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

21. Describe production of dry beans under the following subheading.
- a. Land preparation.
(5 marks)
 - b. Planting
(7 marks)
 - c. Harvesting
(3 marks)
 - d. Outline any five post harvesting practices carried out on beans after harvesting.
(5 marks)
22. a. Outline various ways through which vegetation cover reduces soil erosion.
(4 marks)
- b. Outline various conditions which necessitate land clearing.
(4 marks)
- c. Outline various advantages of land consolidation.
(6 marks)
- d. Give six benefits of planting annual crops early.
(6 marks)
23. The following table shows production of maize using various levels of input.

| Units of variable input (man days) | Total output | Marginal product | Average product |
|---|---------------------|-------------------------|------------------------|
| 0 | 0 | - | - |
| 1 | 6 | - | - |
| 2 | 18 | - | - |
| 3 | 33 | - | - |
| 4 | 40 | - | - |
| 5 | 45 | - | - |
| 6 | 48 | - | - |
| 7 | 48 | - | - |
| 8 | 40 | - | - |

- a. Work out the marginal product and the average product and fill in the table.
(9 marks)
- b. On a graph paper, plot graphs showing total output, marginal product and average product against the variable input.
(8 marks)
- c. On the graph paper, draw the following:
(3 marks)
- i) Irregular
 - ii) D
 - iii) D