

FORM FOUR CLUSTER KCSE MODEL 3

AGRICULTURE PAPER 1 QUESTIONS

SECTION A (30 Marks)

Answer ALL the questions in this section in the spaces provided.

1. List four categories of livestock farming.

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2. State four possible uses of income earned by farmers from the sale of agricultural produce.

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3. Give four uses of micro-catchments.

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4. State any four effects of soil erosion in Kenya.

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5. List four practices in the field that promote organic farming.

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6. Give four biotic factors that affect agriculture positively.

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7. State any four steps in the soil sampling procedure.

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8. Give four objectives of propping in banana production.

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9. State four features of a good storage structure for grains.
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10. Give four examples of land tenure reforms.
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11. List four areas into which a cut -off drain discharges its water safely.
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12. What is "Economic Injury Level" in pest management?
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13. Give four symptoms of viral infections in crops.
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14. State the Law of Diminishing Returns.
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15. Differentiate between partial and complete budget.
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16. Give four factors that influence spacing of a given crop.
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17. What is capping in coffee production?
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..... **SECTION B (20 Marks)**

Answer ALL questions in this section in the spaces provided

18. A farmer in Muhoroni was advised to apply a compound fertilizer 20:30:10 at the rate of 200kg per hectare in her vegetable plot measuring

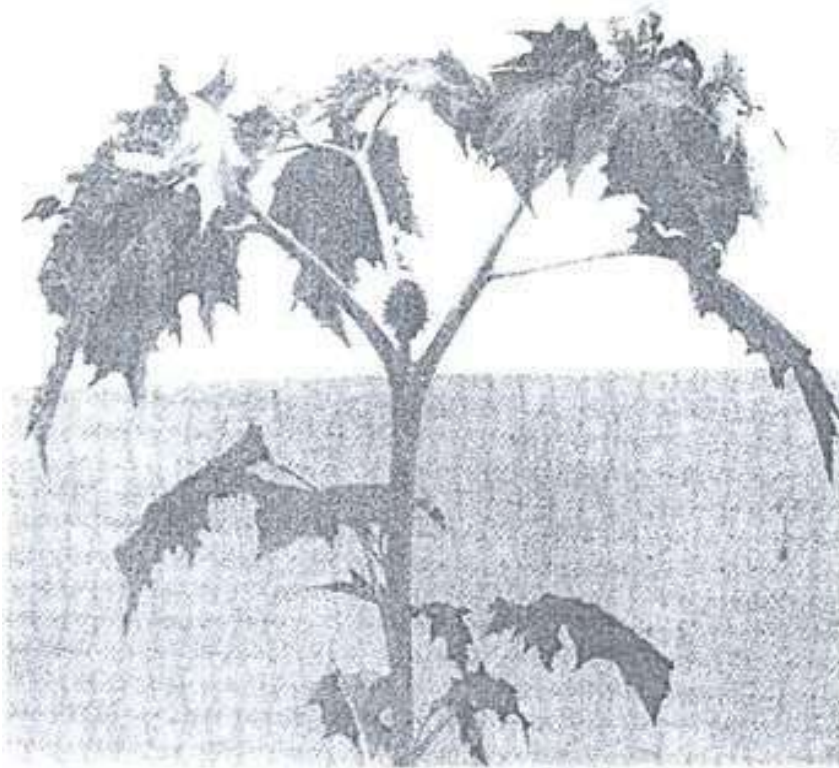
5m long by 4m wide.

What do figures 30 and 10 in the fertilizer ratio stand for? (2 marks)

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..... Calculate the amount of fertilizer the farmer needs for the vegetable plot. (3 marks) (Show your working)

19. Carefully study the diagram illustrating a common weed below then answer the questions that follow.



a) Identify the weed.

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b) Classify the weed according to growth cycle.

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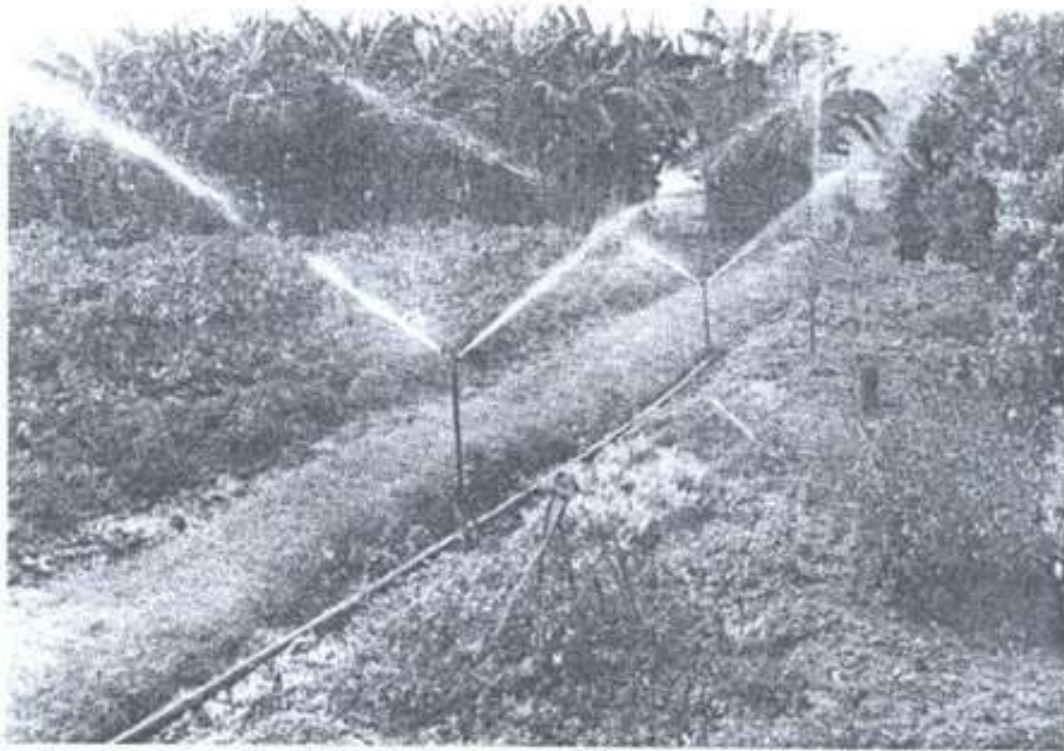
c) What effect does the weed have on livestock?

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d) Give one reason why the weed is not easy to control.

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20. Carefully study the following illustration then answer the questions that follow.



a) Identify the method of irrigation illustrated. (1 mark)

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b) i) Give two advantages of this method of irrigation. (1 mark)

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ii) What is the major disadvantage of this method to a crop farmer. (1 mark)

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c) i) How would you maintain the equipment to serve the farmer better? (1 mark)

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ii) Give two other ways by which this method of irrigation can be achieved. (2 marks)

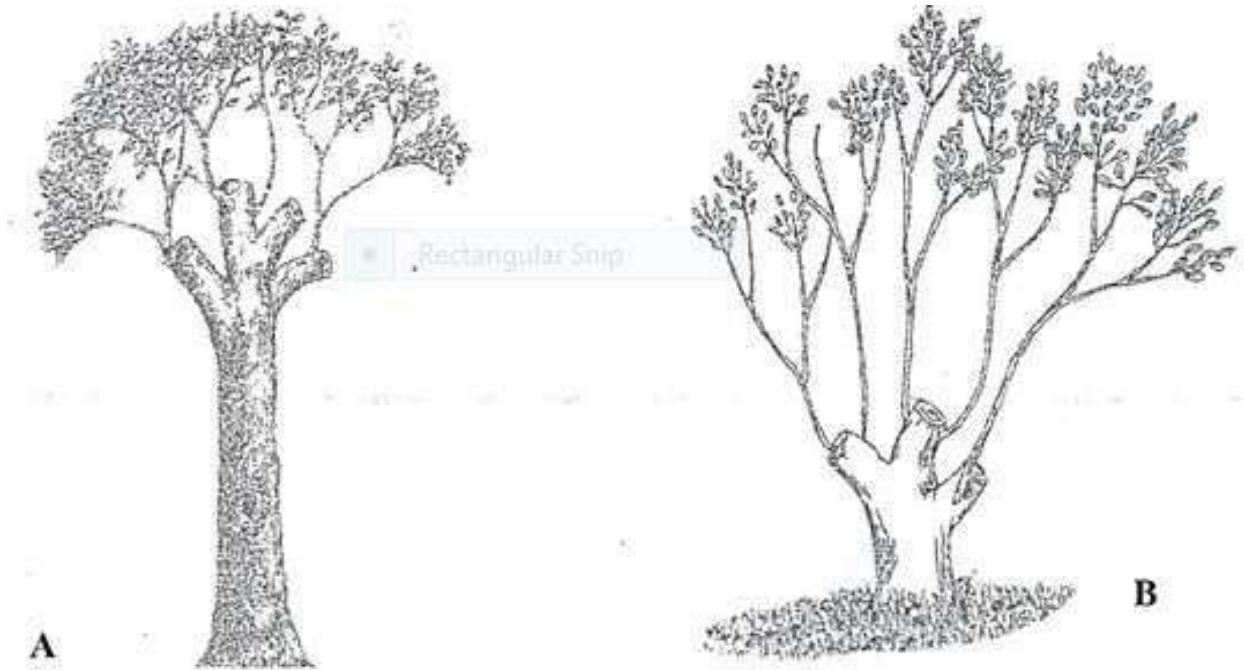
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21. The diagrams below illustrate tree harvesting methods. Study them carefully then answer the questions that follow.



a) Identify the methods illustrated in diagrams A and B. (2 marks)

A

B

SECTION C (40 Marks)

Answer any two questions from this section in the spaces provided after question 24.

22. . a) Explain four human factors that influence agriculture. (8 marks)

b) Describe the production of Dry Beans under the following sub-headings:

i. Planting (3 marks)

ii. Field management practices. (5 marks)

iii. Harvesting and post harvest practices. (4 marks)

23. . a) Explain four human factors that influence agriculture. (8 marks)

b) Describe the production of Dry Beans under the following sub-headings:

i. Planting (3 marks)

ii. Field management practices. (5 marks)

iii. Harvesting and post harvest practices. (4 marks)

a) State four methods of acquiring land for use in Kenya. (4 marks)

b) State the details contained in a purchase order. (4 marks)

c) Draw up a partial budget to show whether the proposed change is worthwhile or not using the information below. (12 marks)

A farmer has 10 ha of arable land, 2 ha is under Irish Potatoes, 1 ha under beans and 2 ha under maize while the rest is under pasture and fodder. The farmer wishes to replace 0.5ha of maize with Irish potatoes. The fertilizer rate would have to increase from 2 bags per ha

for maize to 2.5 bags

per ha for potatoes. An extra 50 man-days of casual labour per ha would be required due to the change. Average yields are 50 bags per ha for maize and 90 bags per ha for potatoes. The price of maize per bag is 1300/= and 1700/= for potatoes. Seeds cost 1000/= per bag for maize and 2000/= per bag for potatoes. Fertilizer costs 1200/= 50 kg bag. Potato seeds required are 4 bags and 1 bag of maize seeds to plant 0.5 ha. Labour cost is 150/= per man –day.

24. a) Describe nursery and field management practices for cabbages. (12 marks)

b) i) Distinguish between stocking rate and land carrying capacity as used in pasture utilization. (2 marks)

ii) Describe the properties of good quality silage. (6 marks)