

MANGU MOCK TRIAL 3

AGRICULTURE

443/1

PAPER 1

TIME: 2 HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

Kenya Certificate of Secondary Education.

INSTRUCTION TO CANDIDATES

1. Write your name and index number in the spaces provided.
2. Sign and write the date or the examination in the spaces provided.
3. This paper consists of three sections A, B and C
4. Answer all questions in Section A and B in the spaces provided
5. Answer only two questions in section C in the spaces provided after question 24.

FOR EXAMINERS USE ONLY

SECTION	QUESTION	MAX.SCORE	CANDIDATE SCORE
A	1-17	30	
B	18-21	20	
C	22	20	
	23	20	
	24	20	
TOTAL SCORE		90	

SECTION A (30 MARKS)

Answer all questions in this section in the spaces provided.

1. List two types of production functions. (1 marks)

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2. State two causes of blossom-end rot in tomatoes. (2 marks)

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3. List three factors that lead to successful grafting. (1 ½ marks)

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4. State two ways of overcoming the problem of hardpan in crop production. (2 marks)

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5. State two disadvantages of persistent use of pesticides in crop production. (1 mark)

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6. Outline two ways of increasing land productivity per hectare. (1 mark)

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7. Give four benefits of ridging in pyrethrum establishment in the field. (2 marks)

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8. List two deficiency symptoms of magnesium in crop production. (2 marks)

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9. In which two situations would a farmer prefer sexual propagation to asexual propagation(2 marks)

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10. Give four factors that determine the choice of a farming system practiced by a farmer.(2 marks)

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11. State four ways carried out to obtain an even and vigorous stand of sorghum production. (2 marks)

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12. State four properties of soil that are influenced by its texture. (2 marks)

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13. Explain the difference between liquid capital and working capital in agricultural production **(2 marks)**

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14. Outline four activities that may be undertaken in organic farming. **(2 marks)**

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15. State three factors influencing demand of fruits in a market. **(1 ½ marks)**

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16. Outline four conditions where shifting cultivation is favourable. **(2 marks)**

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17. List four implements used in carrying out secondary cultivation. **(2 marks)**

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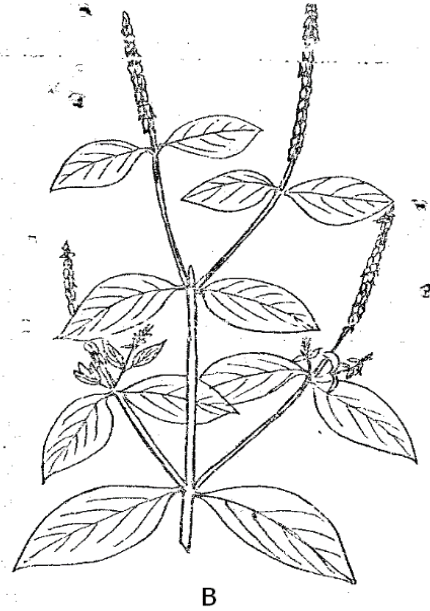
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SECTION B (20 MARKS)

Answer all the questions in this section in the spaces provided. All working must be shown clearly where necessary

18. The diagrams below represents two weeds



a) Identify the weeds marked A and B in the diagrams above. **(2 marks)**

A

B

b) State one harmful effects of each of the weed marked A and B in livestock production **(2 marks)**

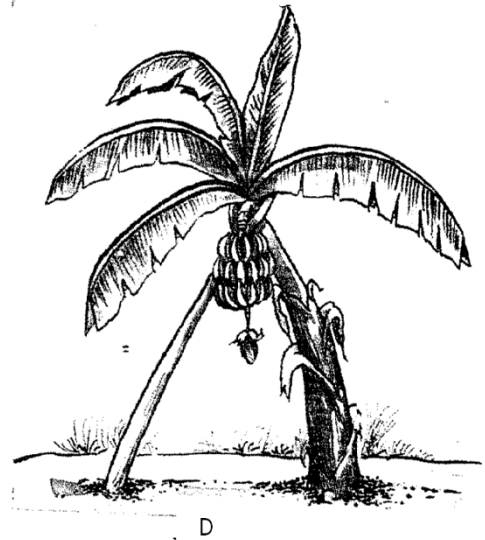
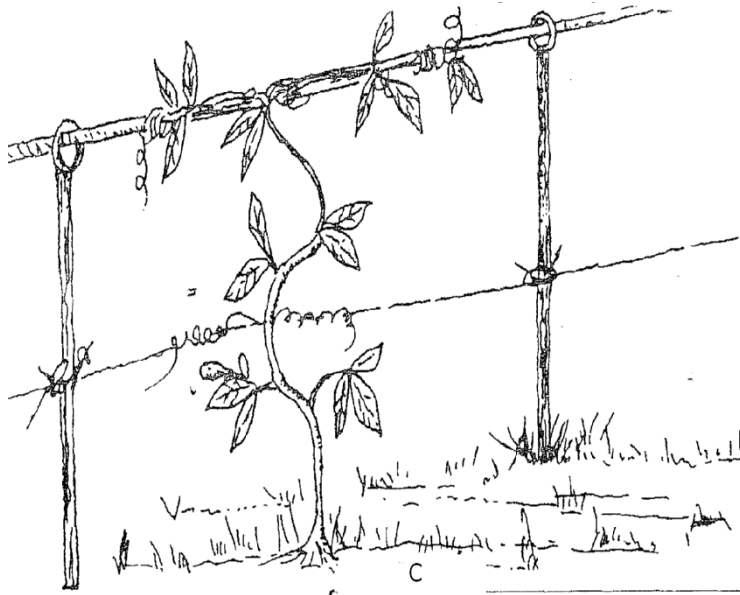
A
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B
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c) State one observable common feature in weed A. **(1 mark)**

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19. The diagrams below illustrates a field management practice carried out in crops.



Identify the practices illustrated as C and D.

(2 marks)

C

D

Name the most likely crop managed as illustrated in C above.

(1 mark)

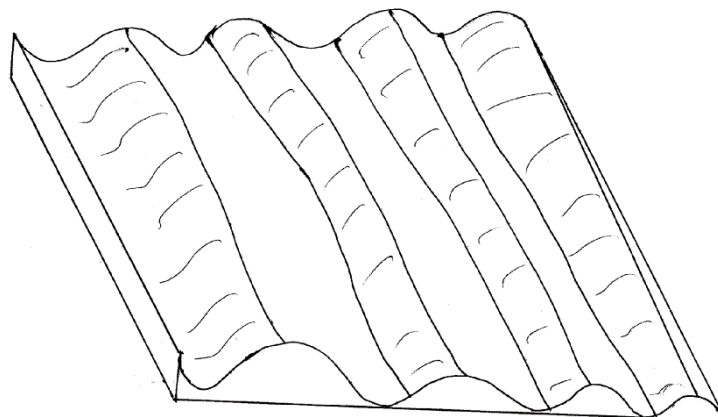
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Give two reasons for carrying out the practice illustrated in C above.

(2 marks)

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20. The diagram below illustrates a final seedbed after a tertiary operation done during land preparation. Study it carefully and answer the questions that follow



Name the tertiary operation carried out on the seedbed

(1 mark)

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Describe how the tertiary operation named in (i) above is carried out.

(2 marks)

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Give three advantages of planting crops on the final seedbed illustrated above. (3 marks)

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21. A farmer wanted to grow either wheat or sugarcane. Study the information provided below about the two crops and answer the questions that follow.

WHEAT

Yield per hectare=3000Kg

Labour requirement per hectare=100 man-day

Cost of labour=Kshs. 25 per man-day

Cost of seed=Kshs 100 per hectare

Cost of Tripple super phosphate=Kshs 3000 per hectare

Cost of Ammonia(S.A)=KShs. 1500 per hectare

Cost of Spray=Kshs. 500 per hectare

Price=Kshs. 20 per hectare

SUGARCANE

Yield per hectare=3500Kg

Labour requirement per hectare=50 man-day

Cost of labour=Kshs. 25 per man-day

Cost of seed=Kshs 1000 per hectare

Cost of single super phosphate=Kshs 1500 per hectare

Cost of Spray=Kshs. 100 per hectare

Price=Kshs. 18 per hectare

Calculate the gross margin of each of the crops.

(4 marks)

SECTION C (40 MARKS)

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

22. Discuss rice production under the following subheadings

i) Ecological requirement **(4 marks)**

ii) Land preparation **(6 marks)**

iii) Weed control **(4 marks)**

Fertilizer application **(4 marks)**

Harvesting **(2 marks)**

23. a) A farmer has 30 hectares of arable land, 20 hectares of which is planted with maize and 10 hectares with grass hay. He wishes to replace 10 hectares of maize with Irish potatoes next year. The fertilizer rate will have to be increased from 2 bags per hectare for maize to 4 bags per hectare for potatoes. As a result of the change extra 40 men days of casual labour per hectare will be necessary at the rate of Kshs. 100 per man a day. The average yield per hectare of maize is 35 bags and for potatoes 120 bags. The price paid is Kshs. 1000 per bag of maize and Kshs. 600 per bag of potatoes. Maize seeds cost Kshs. 750 per hectare and potatoes cost 8000 per hectare. Fertilizer costs is 650 per hectare. Draw up a partial budget and advise the farmer accordingly. **(10 marks)**

b) Outline the marketing functions in an agricultural market. **(10 marks)**

24. Describe the physical and cultural measures employed in the control of pests in crop production **(20 marks)**