

NAME:..... INDEX NO:..... SIGNATURE:.....

## ALLIANCE HIGH SCHOOL



443/1  
AGRICULTURE  
TRIAL EXAM, Sept 2022  
PAPER 1  
TIME: 2 HOURS

*Kenya Certificate of Secondary Education*

### Instructions to Candidates:

- Write your name and index number in the spaces provided above.
- Sign and write the date of examination in space provided.
- This paper consists of three sections; A, B and C.
- Answer all the questions in section A and B.
- Answer any two questions in section C.
- All answers should be written in spaces provided in question paper.

### FOR EXAMINER'S USE ONLY

SECTION	Question	Maximum score	Candidates score
A	1 - 15	30	
B	16 - 19	20	
C		20	
		20	
	<b>Total score</b>	<b>90</b>	

**SECTION A (30MARKS)**

***Answer All the questions in this section in the spaces provided***

1. Name **two** methods of farming that are considered outdated **(1mark)**  
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2. State **three** symptoms of potassium deficiency in plants **(1 ½ marks)**  
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3. State **two** ways of controlling late blight in tomatoes **(1marks)**  
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4. Name **three** financial documents in farm accounts **(1½ marks)**  
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5. State **four** farming practices which can enhance proper light penetration in a crop. **(2marks)**  
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6. Give **four** factors which determine the method of weed control in crop production **(2marks)**  
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7. State **four** causes of seed dormancy

(2marks)

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8. List **four** effects of weeds on pastures

(2marks)

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9. State **four** qualities to be considered when selecting seeds for planting

(2marks)

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10. Name **four** methods of harvesting trees.

(2mks)

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11. Give two methods of conserving forage.

(1mk)

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12. State four roles of young farmers clubs in Kenya.

(2mks)

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13. State **three** farming practices which may lead to multiplication of pests

(1 ½ marks)

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14. Give **three** pieces of information to be found in a master roll

(1 ½ mark)

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15. State **three** objectives of land reform

(1 ½ marks)

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16. Why is it important to weed early in crop production (2marks)

i) .....

ii) .....

17. State **three** effects of late defoliation in pasture management (1½ marks)

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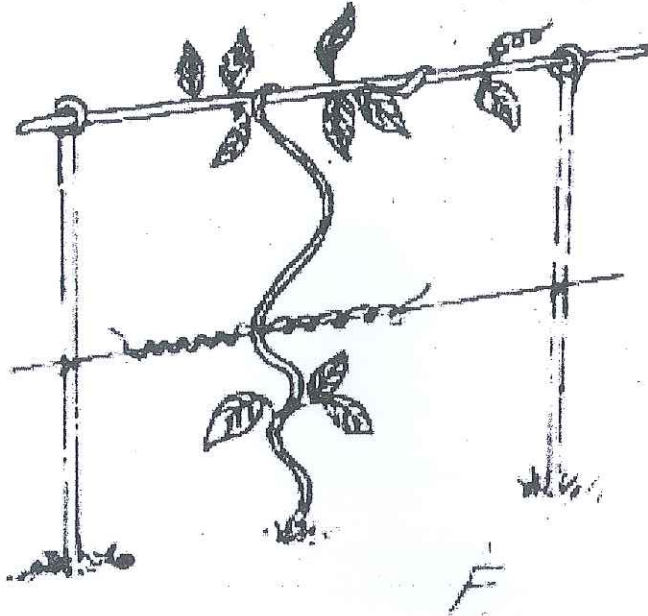
18. Differentiate between undersowing and oversowing as used in forage Production. (2marks)

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**SECTION B (20MARKS)**

*Answer All the questions in this section in the spaces provided*

16. The diagram F, below illustrates a method of training in crops.



a. Identify the method shown in F above.

(1mark)

b. Name two other methods used in training in crop production.

(1mark)

c. State two advantages of training in crop production.

(2mark)

d. List two crops that require training.

(1 mark)

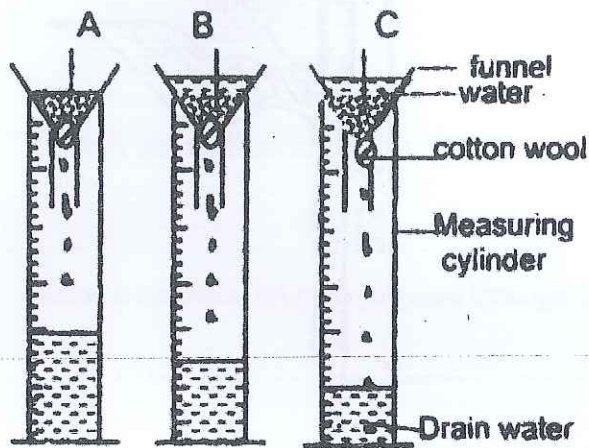
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19. The diagram below illustrates an experiment on soil. Study it carefully and answer the questions that follow.



(a) State the aim of the experiment.

(1 mark)

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(b) If the volume of water illustrated in the measuring cylinders was observed after one hour, identify the soil samples labelled A and B.

(1 mark)

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(c) State two ways in which the soil structure of the soil sample labeled C above can be improved. (2 marks)

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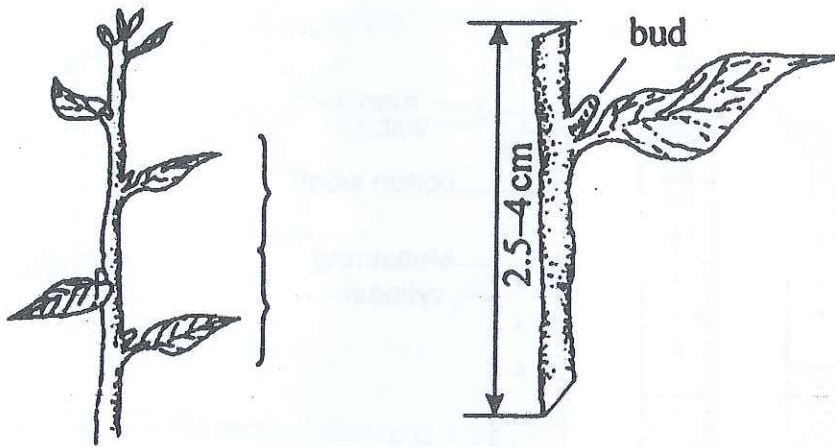
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20. The diagram below shows a section of a plant from which the planting material illustrated was obtained.



(a) Identify the planting material illustrated. (1 mark)

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(b) Give two reasons why only the middle part of the plant was used to prepare the planting material. (2 marks)

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(c) Apart from using the middle part of the plant, explain two precautions that should be observed when preparing the illustrated planting material. (2 marks)

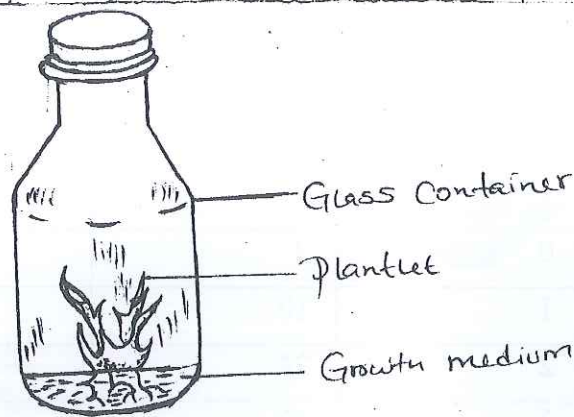
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21. The diagram below illustrate materials, and a method of vegetative propagation. Study it and answer the questions that follow.



i) Identify the method of propagation illustrated above. (1mk)

ii) Name a common crop propagated through the method. (1mk)

iii) Give three disadvantages of this method of propagation. (3mks)

**SECTION C(40MARKS)**

**Answer any two questions from this section in the spaces provided**

22. (a) Describe the production of dry beans (*Phaseolus vulgaris*) under the following sub-headings:

(i) Varieties common in Kenya; (2 marks)

(ii) Selection and preparation of planting materials; (3 marks)

(iii) Planting and weeding; (5 marks)

(b) Describe ten safety precautions that should be taken when using herbicides to control weeds. (5 marks)

23. (a) Explain the cultural methods of soil and water conservation **(10marks)**

(b) State and explain how various practices carried out in crop production help to control pests **(10marks)**

24. Study the table below showing quantities of fertilizers used and yield of maize obtained over a period of years and answer the questions that follow.

Land (in ha)	DAP fertilizers (in 20kg units)	Yield (90kg bags)	Marginal production(MP) (in 90 kg bags)	Average production(AP) (in 90 kg bags)
1	0	2		
1	1	10		
1	2	24		
1	3	42		
1	4	56		
1	5	62		
1	6	60		
1	7	56		

(a) i) Fill in the marginal and average product columns in the table **(4marks)**

ii) Using the graph paper provided draw the production function curve **(6marks)**

iii) Show the three zones of production on the graph **(3marks)**

b) State and explain the various land tenure systems practiced in Kenya. **(7 marks)**

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