

# THE ELITES JET



443/1

AGRICULTURE

Paper 1

PRE-MOCK

March 2025 – Time: 2 hours

Name ..... Adm No..... Class.....

School..... Date..... Sign.....

## Instructions to Candidates

- a) Write your name, school and Admission Number in the spaces provided above.
- b) Write your class, date of examination and sign in the spaces provided above.
- c) Answer ALL questions in the spaces provided in the question paper.
- d) This paper consists of three sections A, B and C.
- e) Answer all the questions in section A and B and any two questions in section C.
- f) This paper consists of 12 printed pages.
- g) Candidate should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.
- h) Candidates must answer the questions in English.

## **FOR EXAMINER'S USE ONLY**

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1-15	30	
B	16-19	20	
C	20-22	40	
TOTAL SCORE		90	

**SECTION A: (30 MARKS)***Answer all questions in this section.*

1. List **four** methods of farming. (2 marks)

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2. Five **four** reasons for seed selection in crop production. (2 marks)

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3. Give **four** reasons why a well-drained soil is suitable for crop production. (2 marks)

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4. State **four** types of land reforms practiced in Kenya. (2 marks)

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5. Give **four** ways of controlling weeds in maize field. (2 marks)

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6. State **four** benefits of using organic mulches. (2 marks)

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7. Name **four** farm records that should be kept by a poultry farmer. (2 marks)

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8. State **four** characteristics of a fertile soil. (2 marks)

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9. State **four** advantages of using polythene sleeves to propagate stem cuttings. (2 marks)

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10. List **four** factors that determine the depth of planting. (2 marks)

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11. Name **four** types of water pumps that can be used on the farm. (2 marks)

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12. State **four** factors that should be considered when classifying crop pests. (2 marks)

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13. Name **four** types of grasses grown in high altitude areas as forage. (2 marks)

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14. State **four** factors to consider when grading tomatoes for fresh market. (2 marks)

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15. State **four** implements used for primary cultivation. (2 marks)

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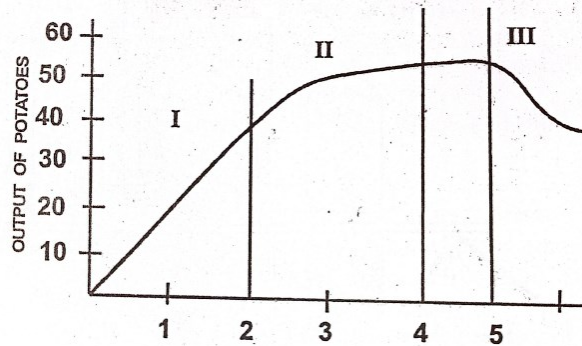
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**SECTION B: (20 MARKS)***Answer all questions in this section*

16. Below is a graphical presentation of the law of diminishing returns.



- a) Identify the law illustrated by the graph. (1 mark)

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- b) Explain how each additional unit of fertilizer input relates to the total output of maize in phase II and III.

- (i) Phase II (2 marks)

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- (ii) Phase III (1 mark)

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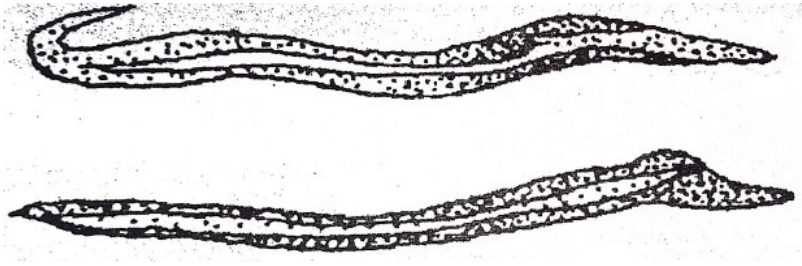
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- c) State the importance of the law identified in (i) above to the maize farmer. (1 mark)

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17. The diagram below shows a soil borne pest that attacks plant roots.



a) Identify the pest. (1 mark)

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b) State **two** symptoms of attack by the pest in tomato production. (2 marks)

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c) State **two** control measures for the pest. (2 marks)

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18. A farmer is advised to apply 60kgN, 20kgP<sub>2</sub>O<sub>5</sub> and 30kg K<sub>2</sub>O per hectare. Calculate the quantity of urea (46%N), Single Super Phosphate (20%P<sub>2</sub>O<sub>5</sub>) and muriate of potash (50% K<sub>2</sub>O) the farmer should apply on his 10 hectares of land. (5 marks)

19. The diagram below shows the method of grafting.



- a) Identify the method of grafting. (1 mark)

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- b) Name **two** other methods of grafting apart from the one illustrated. (2 marks)

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- c) Give **two** reasons why farmer may prefer using the grafting method illustrated. (2 marks)

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**SECTION C: (40 MARKS)***Answer any two questions in this section*20. (a) Describe any **ten** cultural methods of controlling crop pests.

(10 marks)

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(b) Describe five types of soil erosion by water.

(10 marks)

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21. (a) Describe the production of rice (*Oryza sativa*) under the following sub-headings.

i) Land preparation.

(3 marks)

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ii) Weed control.

(2 marks)

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iii) Fertilizer application

(2 marks)

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iv) Water control.

(3 marks)

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(10 marks)

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(b) Explain **five** ways in which soil fertility can be maintained.

(10 marks)

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