

THE ROYAL EXAM SERIES

Kenya Certificate of Secondary Education

443/1 — AGRICULTURE — Paper 1



**FORM 4
TERM 2**



DECEMBER 2021- 2 HOURS

Name..... Index Number:.....

School

Candidate's Signature..... Date.....

INSTRUCTIONS TO CANDIDATES:

- Write your name and index number in the spaces provided above.
- Sign and write the date of examination in the spaces provided above.
- 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 the spaces provided.
- This paper consists of 11 printed pages.
- Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.
- Candidates should answer all the questions in English.

For Examiner's Use Only:

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATES SCORE
A	1-17	30	
B	18-21	20	
C		20	
		20	
	TOTAL SCORE	90	

SECTION A (30 MARKS)

1. State **two** benefits of optimum soil temperature in crop production (1 mark)

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2. Name **three** branches of horticulture. (1½ mks)

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3. State **four** factors a farmer should consider when choosing the farming system to undertake.

(2marks)

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

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5. Give **four** pieces of information found on a delivery note. (2marks)

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6. State **four** reasons for deep ploughing during land preparation. (2marks)

7. Give **four** soil factors that influence soil productivity. (2 marks)

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8. Give **three** factors affecting elasticity of demand (1½ mks)

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9. Differentiate between seed inoculation and seed dressing. (1mark)

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10. State **four** effects of soil erosion. (2marks)

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11. Outline **four** practices necessary to improve and maintain permanent pastures. (2marks)

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12. State **four** factors that affect the rooting of cuttings in tea and sugar cane. (2 marks)

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13. State **four** reasons for mulching.

(2 marks)

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14. Give the function of each of the following in the preparation of compost manure. (2marks)

a) Top soil

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b) Well rotten manure

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c) A thin layer of wood ash

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d) Long pointed stick

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15. State **four** deficiency symptoms of phosphorus.

(2 marks)

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16. State **four** characteristics of nitrogenous fertilizers.

(2 marks)

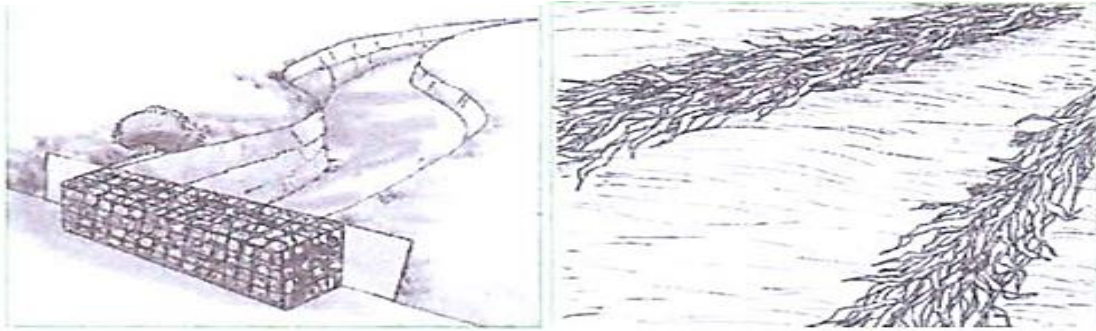
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17. Give **two** reasons why root pruning is done in the nursery management in agro forestry.

(1 mark)

SECTION B (20 MARKS)

18. The illustrations labelled A and B show some farm structures used in soil and water conservation. Study them carefully and answer the questions that follow.



A

B

a) Identify structures A and B. (1 mark)

A.....
B.....

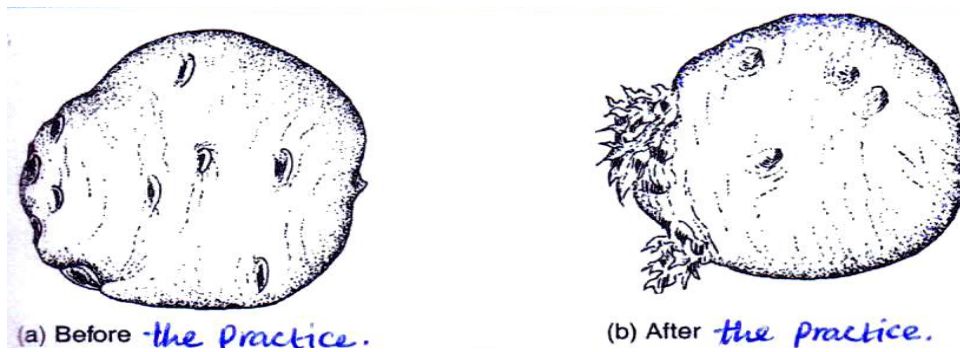
b) Name the type of soil erosion controlled by structures A and B. (2 marks)

A.....
B.....

c) State **two** ways in which the structures help to control soil erosion. (2 marks)

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19. The diagrams below illustrate irish potato seed preparation before planting. Study it carefully and answer the questions that follow.



(a) Before *the practice.*

(b) After *the practice.*

a) Name the practice used in preparing the seed potato above before planting. (1 mark)

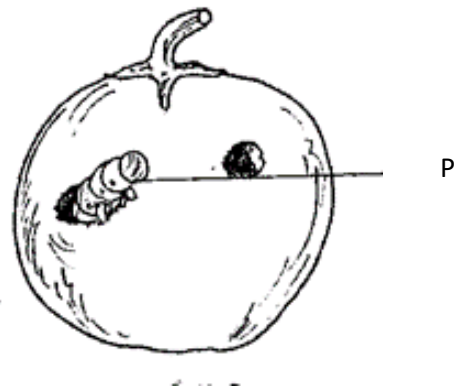
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b) Describe the procedure followed in preparing the seed potatoes for planting. (3 marks)

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c) Give **one** reason for carrying out the practice named above. (1 mark)

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20. The diagram below shows a tomato fruit affected by a pest. Study it carefully then answer the questions that follow.



(a) Identify the pest labeled **P** (1 mark)

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(b) State **one** method used to control the pest. (1 mark)

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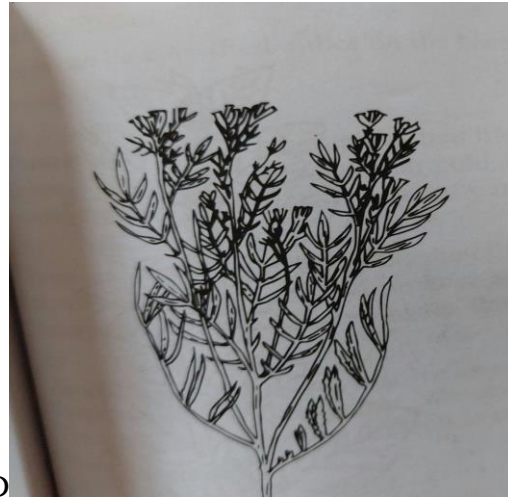
(c) State any **three** factors to consider when selecting tomato fruits for marketing. (3 marks)

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21. The photographs below show common weeds C and D in pasture land. Study them carefully and answer the questions that follow.



C



D

a) Identify weeds C and D. (2 marks)

C.....

D.....

b) Classify weed D according to plant morphology. (1 mark)

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c) State the major problem posed by each of the weeds above in pasture land. (2 marks)

C.....

D.....

SECTION C (40MARKS)

22. a) State **five** benefits of sowing annual crops early. (5marks)

b) Describe **eight** effects of fragmentation and sub division of land. (8marks)

c) Explain how government policies affect agricultural production. (7 marks)

23. a) Describe the various field management practices for tomatoes. (8marks)

b) State the precautions that should be observed when harvesting cotton. (4marks)

c) Explain **four** importance of crop rotation. (8marks)

