

443/1

— **AGRICULTURE** —

Paper 1



Nov. 2019 – 2 hours



Name Index Number

Candidate's Signature Date

Instructions to candidates

- (a) Write your name and index number in the spaces provided above.
- (b) Sign and write the date of examination in the spaces provided above.
- (c) This paper consists of **three** sections; **A, B** and **C**.
- (d) Answer **all** the questions in sections **A** and **B**.
- (e) Answer any **two** questions in section **C**.
- (f) All answers should be written in the spaces provided.
- (g) This paper consists of **16** printed pages.
- (h) Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.
- (i) Candidates should answer the questions in **English**.

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Section	Question	Maximum Score	Candidate's Score
A	1-20	30	
B	21-24	20	
C		20	
		20	
Total Score		90	



SECTION A (30 marks)

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

1. Name **four** aspects of rainfall that affect agriculture. (2 marks)

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2. State **four** factors that determine the depth of cultivation. (2 marks)

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3. State **four** factors that influence the quality of farmyard manure. (2 marks)

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4. State **two** factors that determine national income. (1 mark)

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5. State **four** causes of land fragmentation. (2 marks)

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6. Name **two** types of labour records. (1 mark)

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7. State **four** ways in which crop pests are classified. (2 marks)

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8. What is the minimum number of people required to form a co-operative society in Kenya? (½ mark)

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9. Give **two** examples of fixed costs in maize production. (1 mark)

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10. What is meant by the term production function? (1 mark)

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11. State **three** characteristics of good trees for agroforestry. (1½ marks)

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12. Name **two** varieties of sorghum grown in Kenya. (1 mark)

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13. State **four** reasons why agriculture is important to Kenya's economy. (2 marks)

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14. Give **two** reasons why the use of fire is discouraged in land clearing. (1 mark)

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15. State **four** ways in which mulching conserves water. (2 marks)

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16. State **four** uses of farm records. (2 marks)

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17. State **four** characteristics of shifting cultivation. (2 marks)

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18. State the law of supply as used in agricultural marketing. (1 mark)

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19. State **four** ways in which trees improve soil productivity. (2 marks)

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20. What is meant by the term integrated pest management? (1 mark)

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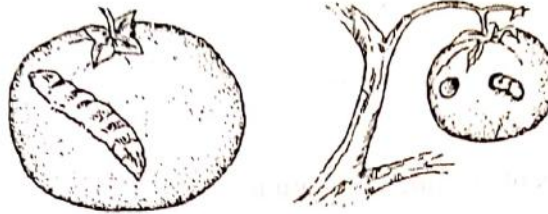
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SECTION B (20 marks)

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

21. The diagram below illustrates a tomato fruit infested by a field pest.



(a) Identify the pest. (1 mark)

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(b) State **two** ways in which the pest is economically important. (2 marks)

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(c) State **two** cultural ways of controlling the pest. (2 marks)

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22. The diagram below shows a weed.



(a) Identify the weed.

(1 mark)

(b) Using features on the diagram, give **two** reasons why it is difficult to eradicate the above weed.

(2 marks)

(c) State **two** ways in which the weed is economically important.

(2 marks)

23. The diagrams below illustrate soil structures.



M



N



P



Q

(a) Identify the soil structure labelled M, N and P.

M (1 mark)

N (1 mark)

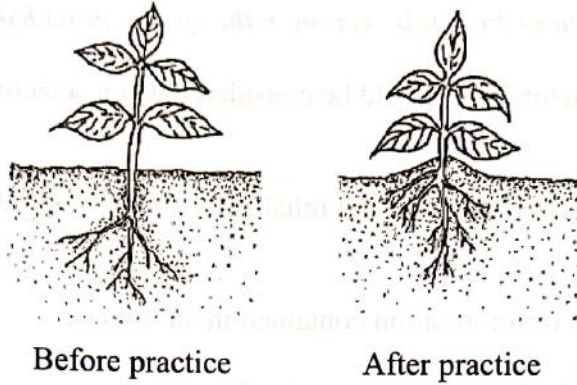
P (1 mark)

(b) Name the type of soil where each of the structures labelled N and Q is found.

N (1 mark)

Q (1 mark)

24. The diagram below shows an illustration of a crop field practice.



(a) Identify the field practice illustrated above. (1 mark)

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(b) Name **two** crops which require the practice illustrated. (2 marks)

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(c) Give **two** reasons for carrying out the practice on one of the crops you have named in (b) above. (2 marks)

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SECTION C (40 marks)

Answer any two questions from this section in the spaces provided after question 27.

- 25. (a) Explain **seven** factors that should be considered when selecting seeds for planting. (7 marks)
- (b) State **four** benefits of adequate and reliable rainfall in vegetable crop production. (4 marks)
- (c) State **four** pieces of information contained in an invoice. (4 marks)
- (d) State **five** roles of calcium in crop production. (5 marks)
- 26. (a) Describe how sugar cane is harvested. (5 marks)
- (b) Explain **four** factors that determine the nutrient content of hay. (4 marks)
- (c) State **seven** roles of a farm manager. (7 marks)
- (d) Describe **four** methods used to reclaim a swampy land for agricultural production. (4 marks)
- 27. (a) Describe the production of carrots under the following subheadings:
 - (i) land preparation (3 marks)
 - (ii) planting (4 marks)
- (b) Describe **six** ways in which grass cover helps in soil and water conservation. (6 marks)
- (c) Explain **seven** nursery management practices. (7 marks)

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