

KCSE TRIAL 2020 AGRICULTURE PAPER 1

SECTION A (30 MARKS)

Answer all the questions in this section in the spaces provided

1. Give **two** ways that can be used to assess soil fertility (1 mark)

- (i)
- (ii)

2. List **four** methods that can be used to reclaim a water-logged land (2 marks)

- (i)
- (ii)
- (iii)
- (iv).....

3. State **four** reasons why subsoiling is important as an operation of land preparation. (2 marks)

- (i)
- (ii)
- (iii)
- (iv).....

4. Give **two** factors that influence the quality of farmyard manure. (1 mark)

- (i)
- (ii)

5. State **four** advantages of applying lime as a measure of improving soil condition (2 marks)

- (i)
- (ii)
- (iii)
- (iv).....

6. State **three** functions of Nitrogen in crops. (1 ½ marks)

(i)

(ii)

(iii)

7. Give **four** factors that can increase seed rate in crop production. (2 marks)

(i)

(ii)

(iii)

(iv).....

8. State **four** uses of organic mulch in crop production. (2 marks)

(i)

(ii)

(iii)

(iv).....

9. List **four** characteristics of crops grown for green manure. (2 marks)

(i)

(ii)

(iii)

(iv).....

10. List **four** advantages of timely harvesting of crops. (2 marks)

(i)

(ii)

(iii)

(iv).....

11. State **two** advantages of intercropping (1 mark)

- (i)
- (ii)

12. State **two** conditions under which the opportunity cost is zero in a farming enterprise. (1 mark)

- (i)
- (ii)
- (iii)
- (iv).....

13. Give **four** advantages of sprinkler irrigation. (2 marks)

- (i)
- (ii)
- (iii)
- (iv).....

14. State **four** disadvantages of weeds in crop production (2 marks)

- (i)
- (ii)
- (iii)
- (iv).....

15. Give **three** reasons for the success of settlement schemes in Kenya after independence

- (i)
- (ii)
- (iii)

16. State **four** factors affecting the efficiency of pesticides. (1½ marks)
(2 marks)

- (i)
- (ii)
- (iii)
- (iv).....

17. State **four** factors that influence solifluction. (2 marks)

- (i)
- (ii)
- (iii)
- (iv).....

18. Give a reason for carrying out the following practice (1 mark)
(a). topdressing established crops.

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SECTION B (20 MARKS)

Answer all the questions in the spaces provided

19. Below is a diagram of a type of soil structure. Study it and answer the questions that follow.



(a) Identify the soil structure illustrated above. (1 mark)

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- (b) Give **one** way in which the structure illustrated above limit crop production. (1 mark)

20. Study the illustration given below and use it to answer the questions that follow.



- (a) Identify the operation illustrated above. (1 mark)

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- (b) State **four** reasons for carrying out the operation named in (a) above (2 marks)

- (i)
- (ii)
- (iii)
- (iv).....

21. A farmer has four plots L1, L2, L3 and L4 as shown in the table below. Each plot has an agronomic problem as indicated.

L1 Infected with witch Weed (striga spp)	L2 Infected with bacterial wilt	L3 Deficient in Nitrogen	L4 Prone to soil erosion
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Plan a crop rotation programme for the first year in the four plots using the following crops
maize, Irish potatoes, Rhodes grass and Beans (2 marks)

- L1.....
- L2.....
- L3.....
- L4.....

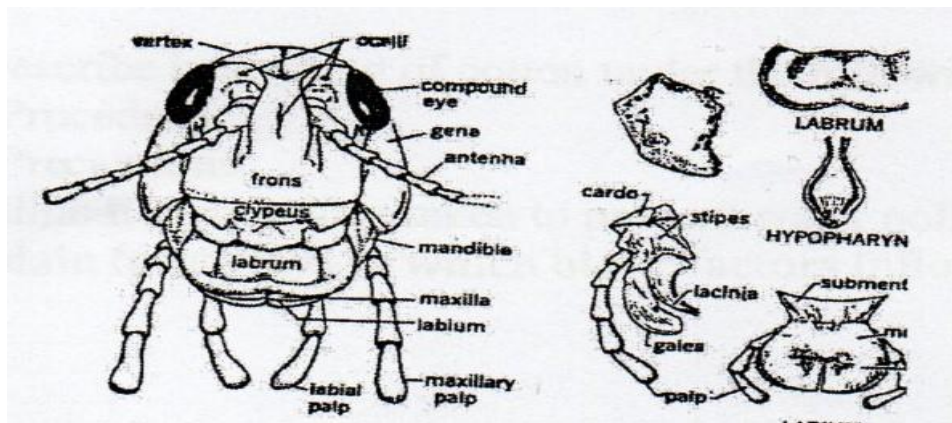
(b). Give reasons to justify the plan you have made in plots L2, L3 and L4. (3marks)

- L2.....
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- L3.....
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- L4.....
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22. Mr. Mulamba was advised to apply 150kgCAN/ha, while topdressing his maize crop. CAN contains 21%N. Calculate the amount of nitrogen applied/ha (4 marks)

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23. Observe the diagram below and answer the questions that follow.



(a). Identify the mode of feeding exhibited by a pest having such features. (1 mark)

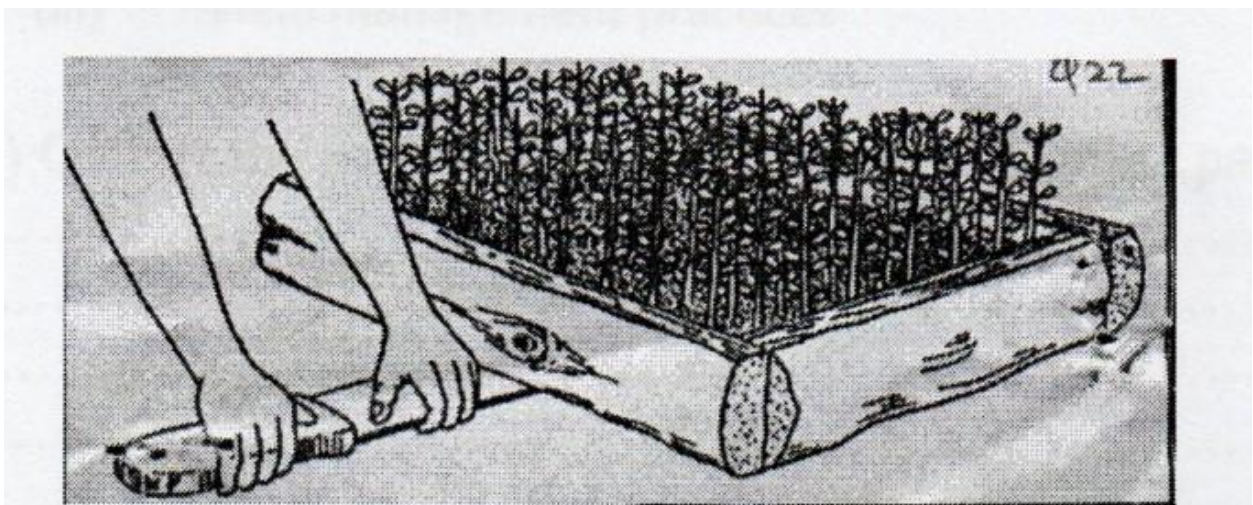
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(b). Name any **two** pests with the above feeding habits. (2 marks)

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24. (a) The diagram below shows a nursery management practice carried out on a tree seedling. Study it and answer the questions that follow.



(a) Identify the management practice. (1 mark)

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(b). Give **two** reasons for carrying out the practice above. (2 marks)

(i).....

(ii)

SECTION C (40 MARKS)

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

25. (a) Describe harvesting of cotton under the following sub-headings
- i. Procedure (3 marks)
 - ii. Precautions (4 marks)
- (b). Outline **five** measures taken to prevent water pollution. (5 marks)
- (c). Explain **four** ways in which biotic factors influence crop production in Agriculture (8 marks)
26. (a). Explain five farming activities which may encourage soil erosion. (10 marks)
- (b). Explain the importance of a nursery in crop propagation. (5 marks)
- (c). Give the contributions of settlement schemes to agricultural development. (5 marks)
27. Describe the production of beans under the following subheadings:
- (i). Field preparation (4 marks)
 - (ii). Planting (3 marks)
 - (iii). Field management practices. (5 marks)
- (b). Outline the advantages of a mixed grass legume pasture over pure grass. (8 marks)

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