

NAME:.....

INDEX NO:.....

SCHOOL:.....

DATE:.....

SIGN:.....

AGRICULTURE
443/1
PAPER I
TIME: 2 HOURS

Kenya National Examination Council (K.C.S.E)

AGRICULTURE
443/1
PAPER I
TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES

- Write your name and index number in the spaces provided above
- This paper consists of three sections A, B & C
- Answer all the questions in the spaces provided

This paper consists of 12 printed pages. Candidates should check the question paper to ensure that all pages are printed as indicated and that no questions are missing.

SECTION A (30MKS)

Answer all the questions in this section in the spaces provided

1. Give **two** reasons why agriculture is looked at as an artistic practice (2mks)

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2. Name **four** species of trees and shrubs commonly used in agro-forestry (2mks)

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3. Outline **two** disadvantages of communal land tenure system (1mk)

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4. Differentiate between pricking out and hardening off in crop production (1mk)

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5. Give **three** different types of soil water (1 ½ mks)

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6. Explain the following terms (2mks)

(i) Elasticity of demand

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(ii) Elasticity of supply

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7. Highlight **two** factors that influence the stage at which crops are harvested (1mk)

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8. Give **two** ways of utilizing napier grass as a forage crop (1mk)

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9. Mention **two** methods of improving labour productivity on a farm (1mk)

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10. State **two** ways the level of education and technology affect agricultural production in Kenya (1mk)

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11. Give **two** signs of crop infestation by root nodes namatodes (1mk)

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12. State **one** reason why farm yard manure should not be applied in a field of carrots (½ mk)

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13. Name **two** chemicals used in water treatment (1mk)

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14. A farmer was advised to apply 210 kg of calcium of ammonium nitrate (CAN 21-0-0) per hectare. Calculate the amount of nitrogen required (2mks)

15. Give **two** factors that discourage shifting cultivation (1mk)

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16. State **four** reasons why tissues culture is encouraged in crop production (2mks)

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17. State **four** precautions taken when harvesting tea (2mks)

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18. (a) State **three** reasons why farm budgeting is carried out (1½ mks)

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(b) Define the term opportunity cost (½ mks)

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19. (a) Name **two** categories of crops on the basis of photosynthetic light requirement (1mk)

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(b) Give **four** climatic factors that are influential during the soil formation process (2mks)

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20. State **five** harmful effects of weeds (2 ½ mks)

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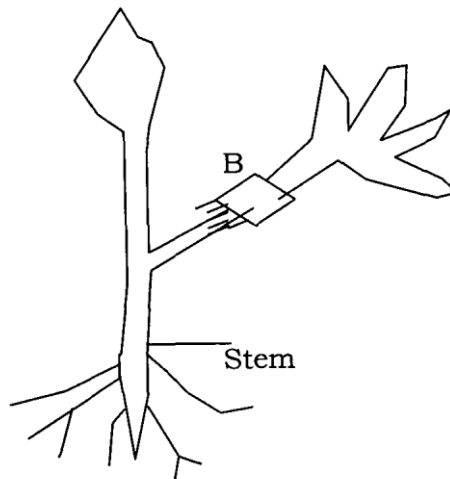
21. Outline **three** advantages of using certified seeds in crop production (1½ mks)

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SECTION B(20 MARKS)

(Answer all the questions in this section in the spaces provided)

22. Study the diagram below and use it to answer the questions that follow



(i) State the method of vegetative propagation shown in B (½ mk)

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(ii) State **two** factors that lead to the development of roots in plant B (2mks)

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(iii) State **one** limitation of using the above method of propagation (1mk)

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23. Identify the farm record below and answer the questions that follow.

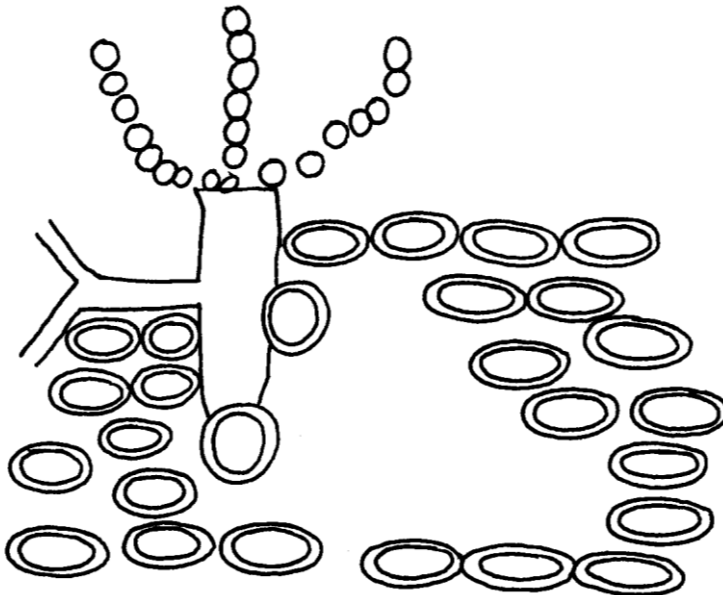
DATE	Disease and symptoms	Animals affected	Drug used	Cost of treatment	remarks

(a) Identify the farm record shown (1mk)

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(b) State **three** different information that should be entered in the remarks column (3mks)

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24. (a) Identify the fungal disease indicated above (½)

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(b) State the causal organism of the disease identified above (1mk)

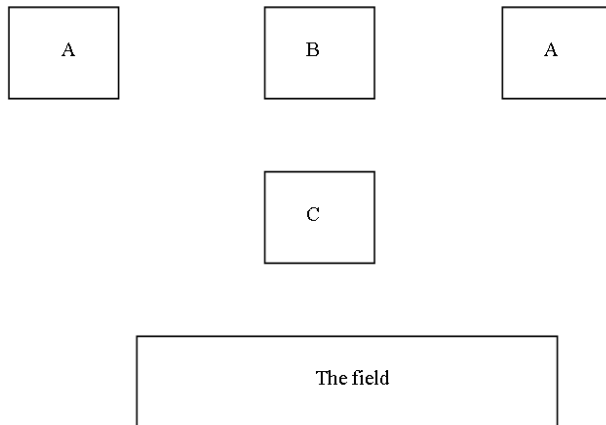
.....

(c) State **two** symptoms of the disease above (1mk)

.....

(d) State **one** control measure for the disease in the control field (1mk)

25. The illustration below shows a four —heap system of making a compost manure. Study it and answer the question that follow.



(i) By use an arrow show how the decomposing materials should be transferred from one heap to another till the manure is applied in the field (1mk)

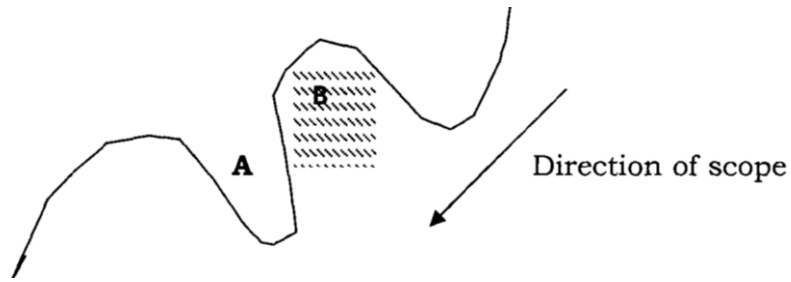
(ii) How long does the material take to be ready for application in the field as manure (½ mk)

(iii) Give **one** reason for turning the material in the heap regularly (½ mk)

(iv) Give **one** reason why it is necessary to sprinkle water on the heap (½ mk)

(v) Outline **two** characteristics of plants used for green manuring (1mk)

26. Below is a diagram of a narrow based terrace .Study it carefully and answer the questions that follow.



(i) Label part A and B (1mk)

A:

B:

(i) Name the practice carried to B immediately the terrace is constructed (½ mk)

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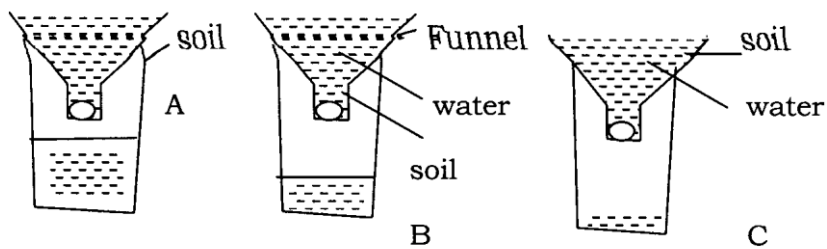
(ii) State the maintenance practices carried to part A (1mk)

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(iv) State **two** ways terraces conserve soil and water (1mk)

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27. The diagram below shows an experiment set up using different soils type A,B and C. The observation is made after 24 hours



(a) State what the experiment was designed to study (1mk)

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(b) Name the soil type labeled A,B and C (1 ½ mks)

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