NAME…… INDEX NO……

431/1 **CANDIDATES SIGN…….**
AGRICULTURE **DATE……**
PAPER 1

TIME: 2 HOURS

AGRICULTURE

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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 questions in section A and B.
e) Answer any TWO in section C.
f) All answers must be written in the spaces provided.
g) This paper consists of 9 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.

FOR EXAMINERS USE ONLY

SECTION	Question	Maximum score	Candidate's score
A	1-17	30	
B	18-21	20	
C	22-24	40	
TOTAL SCORE		90	

SECTION A

ANSWER ALL QUESTIONS INTHIS SECTION IN THE SPACES PROVIDED.

1. State two roles of soil micro-organisms that are beneficial to plants.(1mk)

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2. State two forms in which Nitrogen is available to plants.(1mk)

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3. Name three negative parts that can be used to propagate pineapples.(1½mks)

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4. State four factors that can increase the seed rate in crop production.(2mks)

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5. State four reasons for deep ploughing during land preparation.(2mks)

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6. What is meant by the following terms;
   a. Mixed cropping.(1mk)

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   b. Mixed farming.(1mk)

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7. Give two situations in which opportunity cost is equal to zero.(2mks)

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8. State four qualities of crops which are used for green manure.(2mks)

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9. Give four farming practices which can lead to increase in amount of light falling on leaves.(2mks)

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10. State four factors which determine the stage and time of harvesting crops.(2mks)

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11. Give the reason of using the following materials when preparing compost manure.
    i. Wood ash ½mk

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    ii. Top soil½mk

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    iii. Dung ½mk

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12. State five importance of mulching in crop production .(2½mks)

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13. Give four roles of trees in soil and water conservation.(2mk)

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14. List down the three types of land reform which have taken place in Kenya.1½mk)
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15. State three effect of excess Nitrogen in tomato production.(1½mk)
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16. Name two diseases of cabbages.(1mk)
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17. Give four reasons of conserving forage crops.(2mk)
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18. Differentiate between the following;
Top dressing and topping in pasture management. (1mk)
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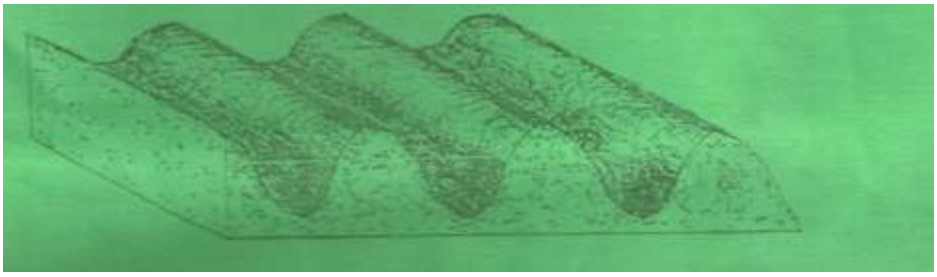
SECTION B

Answer all the questions in the spaces provided.

19. The diagram below illustrates a final seedbed after tertiary done during land preparation.



(a) Name the tertially operation carried out on the seedbed.(1mk)
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(b) Give three reasons for carrying out the operation.(3mks)
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(c) Apart from the above operation name any other tertially operation.(1mk)

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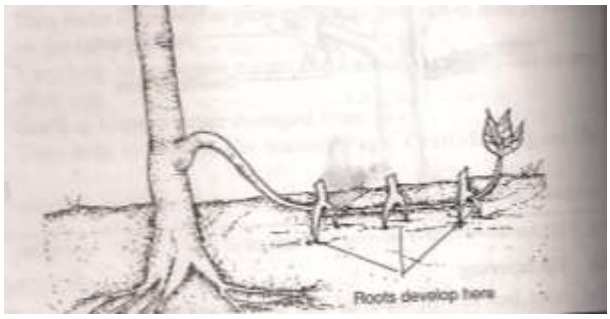
20. The following diagram represent a method of crop propagation .Study it carefully and answer the question that follows.



a. Identify the method of propagation.(1mk)

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b. What is the importance of the above method of crop propagation?(1mk)

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c. State three factors which influence rooting of cutting materials in vegetative propagation.(3mks)

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21. A form four student was advised to apply a compound fertilizer 30:20:10 in a cabbage plot measuring 10 m long by 5 m wide at a rate of 300kg per hectare.

a. State the percentage of Phosphorus.(P_2O_5) .(1mk)

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b. Calculate the amount of the fertilizer the student would require for the plot.(Show your working)3mks

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22. The following is a photography showing maize crop growing in the filed .Study it clearly and answer the questions below.

a. Identify the field practices which have been carried out at point A.(1mk)

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b. Give three reasons as to why it is important to carry out the practices.(3mks)

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c. Apart from the crop above name any other two crops which require the practices in (a) above.(2mks)

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SECTION C

Answer any two questions from this section in the booklet provided.

23. (a) Explain five natural factors that influence soil erosion .(10mks)

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(b) State and explain five factors which may influence the spacing of crops.(10mks)

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24. (a) Give five cultural methods of weed control.(5mks)

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(b) Outline five ways in which pest influence agricultural production.(5mks)

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(c)Describe the importance of any five nursery management practices.(5mks)

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(d)(i) What is the meaning of economic injury level as it is used in pest management.(1mk)

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(ii) Describe four physical measures of pest control in crop production.(4mks)

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25. (a)Explain the effects of land fragmentation in agricultural production.(5mks)

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b) Describe the process of gulley formation.(4mks)

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(c)Outline the factors influencing crop rotation.(6mks)

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(d)Describe the importance of drainage in crop production.(5mks)

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