443/1 AGRICULTURE

PAPER 1

(THEORY)

DURATION:: 2HRS

2021 TRIAL 3 OCT/N0VEMBER INTERNAL EXAMINATION

Kenya Certificate of Secondary Education (K.C.S.E.)

Name……………………………………………….   **Adm No**……………….

Stream……………………………………………….   **Date** ………………………….

Sign   ....

443/1 AGRICULTURE

PAPER 1

(THEORY)

DURATION:: 2HRS

Instructions to candidates

a) Write your name and index 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 in the question paper.*

For Examiner's Use Only

Section	Question	Maximum Score	Candidates Score
A	1 – 20	30	
B	21 - 26	40	
C	27-29	20	
Total Score		90	

1. State t**wo** methods which can be used to detect mineral deficiency in crops. (lmk)

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2. State **two** conditions under which shifting cultivation is favourable. (lmk)

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   ………………………………………………………………………………………………

3. State t**wo** conditions under which seeds are seeded at a high seed rate. (2mks)

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4. State **three** ways in which trees improve soil fertility. (1 ¹/₂ mks)

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5. Give **three** causes of hardpans in cultivation. (1 ¹/₂ mks)

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6. Under what **two** conditions does opportunity cost not exist? (lmk)

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7. Give **two** roles of additives in silage making. (lmk)

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8. Outline **four** advantages of mixed farming. (2mks)

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9. Give **three** reasons why bulbils make good planting materials than suckers. (2mks)

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10. Give **three** reasons why agriculture is defined as a science. (1 ¹/₂ mks)

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11. Give **four** characteristics of large scale farming system.   (2mks)

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12. State **four** farming practices which help to improve soil structure.   (2mks)

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13. Give **four** effects of top dressing on a pasture.   (2mks)

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14. What are the two reasons for innoculating legume seeds before planting .   (1mk)

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15. State **two** advantages of carrying out pruning in banana production.   (1mk)

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16. In maize hybrid 614 what do the following figures stand for?   (1mk)

   (i)   6…………………………………………………………………………………………

   (ii)   4…………………………………………………………………………………………

17. Give **two** ways in which pastures are classified.   (1mk)

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18. Name **four** practices carried out to improve and maintain permanent pasture.   (2mks)

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19. Give **four** advantages of tissue culture.   (2mks)

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20. Give **three** stages of controlling devils horsewhip by mechanical means.   (1½

marks)

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21. The diagram below shows a set up of apparatus for finding the percentage of humus contents in a soil by ignition.
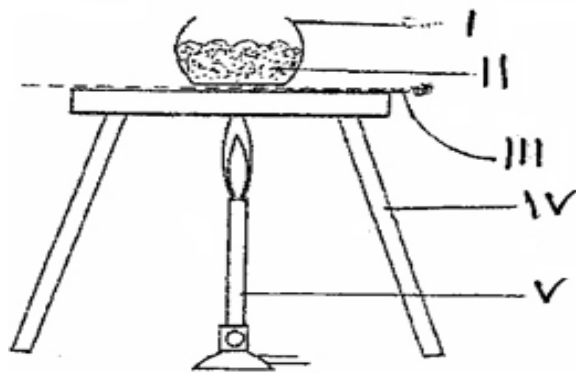
(a) Label the apparatus. (2 marks)

I ……………………………………………………………………………………………………

II ……………………………………………………………………………………………………..

III ……………………………………………………………………………………………………..

IV ……………………………………………………………………………………………………..

(b) Outline the steps followed in carrying out the illustrated experiment. (3 marks)

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22.

    (i)   Identify the weeds above.   (2 marks)

         G …………………………………………………………………………

         H …………………………………………………………………………

    (ii)   State the economic importance of the weed shown in diagram **G**. (2 marks)

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    (iii)   Why is it difficult to control weed in diagram **G**?   (1 mark)

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23. Study the pest below and answer the questions below.

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(a) Identify the pest (1 mark)

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(b) State two methods of controlling the pest. (2 marks)

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(c) Name the crops attacked by the pest. (2 marks)

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24. The diagram below illustrates a field management practices in tomatoes

(i) Identify the practice (1 mark)

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(ii) State three reasons for carrying out the practice. (3 marks)

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(iii)   Give another practice that could be carried out to give the same results.   (1 mark)

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25. Study the diagram below then answer the questions that follow:
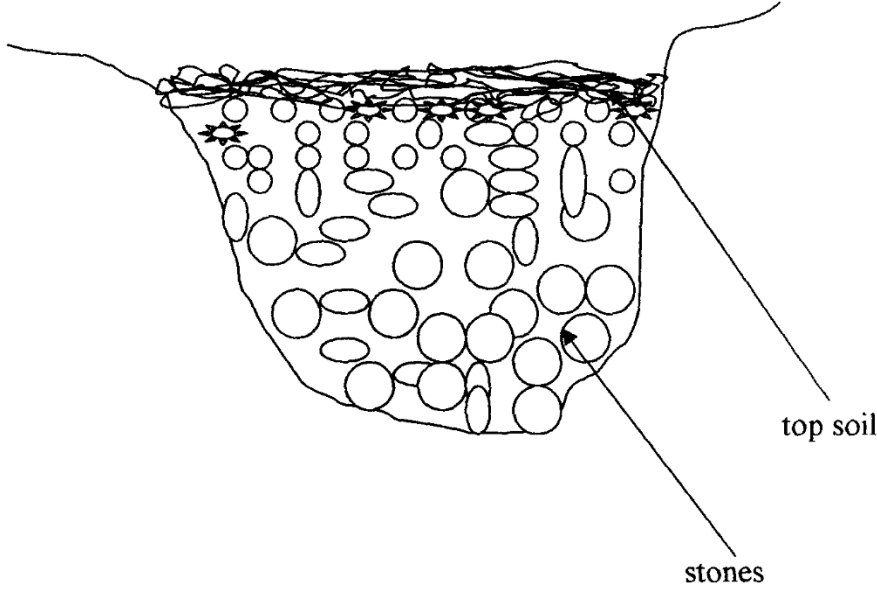
(a) Identify the method of drainage above.   (1mk)

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(b) State other **three** methods used to drain swampy areas.   (3mks)

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(c) Give **four** importance of drainage.   (4mks)

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26. Study the processes of chemical water treatment below and answer the questions that follow:
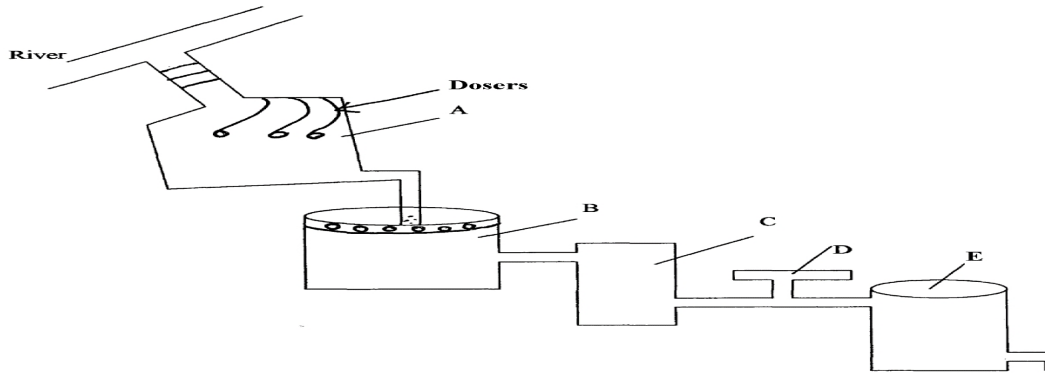
(a)   Identify the parts labeled: (2mks)

   A   ……………………………………………………………………………………………

   B   ……………………………………………………………………………………………

   C   ……………………………………………………………………………………………

   D   ……………………………………………………………………………………………

(b)   State **two** chemical substances added at part labeled B and give their functions.

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(c)   State **two** factors which influence the quantity of the chemical used in part labeled D.

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(d)   State **three** uses of water in crop production.   (3 mks)

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(e)   State **three** types of production functions in agriculture.   (3mks)

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SECTION C (20MKS)

27. (a)   Describe the cultural methods of weed control in crop production.   (l0mks)

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(b)   Describe the harmful effects of pests on crops   (10mks)

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28. (a)   Discuss the human factors which influence agriculture.   (10 marks)

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(b)   Explain **five** factors to consider when choosing the planting time.   (10 marks)

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29. Describe the production of carrots under the following sub headings

   a) Seedbed preparation   (3 marks)

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b) Harvesting   (4 marks)

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c) Explain five cultural methods of weed control in beans production.   (10 marks)

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d) Outline three roles of sulphur in crop production.   (3 marks)

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