END OF YEAR EXAMS

Paving Way For Kenya Certificate of Secondary Education Success

Name …….. Admission no…….

Candidate's Signature…… Date…….

FORM 3

AGRICULTURE

PAPER 1

TIME: 2Hours

INSTRUCTIONS TO STUDENTS

This paper has three sections **A**, **B** and **C**

Answer **ALL** the questions in section **A** and **B** in the spaces provided

Answer only **TWO** questions in section **C** in the spaces provided

FOR EXAMINERS USE ONLY

SECTION	MAXIMUM SCORE	STUDENTS SCORE
A	30	
B	20	
C	20	
	20	
TOTAL	90	

SECTION A

Answer ALL the questions in this section in the spaces provided

1. Outline three reasons for treating water for use in the farm **(1 ½ mks)**

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2. Give four advantages of carrying out minimum tillage **(2mks)**

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3. State four disadvantages of communal land tenure system **(2mks)**

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4. Name any four surface sources of water in the farm **(2mks)**

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5. State four important reasons of keeping farm records in the farm **(2mks)**

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6. Give two ways in which organic mulch helps in the control of soil erosion **(1mk)**

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7. Name any two examples of farm structures that are used in crop production **(1mk)**

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8. Give two reasons for siting a nursery bed at a well sheltered place **(1mk)**

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9. State four reasons as to why burning is not recommended in land **(2mks)**

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10. Give four advantages of using certified seeds during planting **(2mks)**

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11. Why is it necessary to allow freshly cut sorghum (Columbus grass) to wilt before Feeding it to livestock? **(1mk)**

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12. Give two roles of nitrogen in maize production **(1mk)**

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13. Distinguish between the terms hybrid and composite as used in maize breeding **(1mk)**

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14. Outline three important aspects of rainfall a farmer should consider when growing crops **(1 ½ mks)**

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15. State two harmful effects of strong wind in agricultural production **(1mk)**

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16. Give two ways in which cover crops help to conserve water in the soil **(1mk)**

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17. Give a reason for carrying out each of the following management practices on a tree nursery

(a) Pricking out **(1 mk)**

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(b) shading **(1mk)**

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18. Outline two ways of controlling damping off disease off disease of cabbages **(1mk)**

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19. State four effects of pests with both piercing and sucking mouth parts on crops **(2mks)**

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20. Name four natural factors that may influence soil erosion **(2mks)**

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21) What do you understand by the term opportunity cost **(1 mk)**

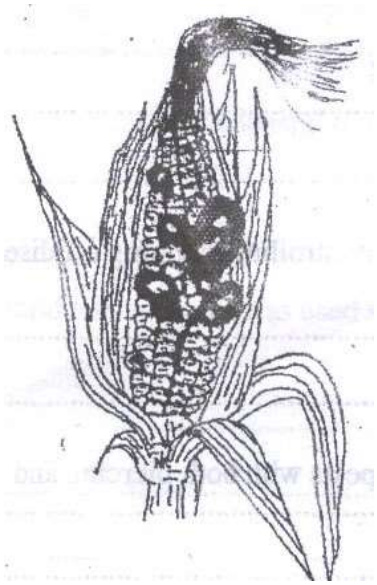
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SECTION B (20 MARKS)

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Answer ALL the questions in this section in the spaces provided

22) The diagram below illustrates a maize cob attacked by a disease. Study it carefully and answer the questions that follow.



(a) Identify the disease **(1 mk)**

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(b) Apart from maize, give two other crops that may be attacked by the disease **(1mk)**

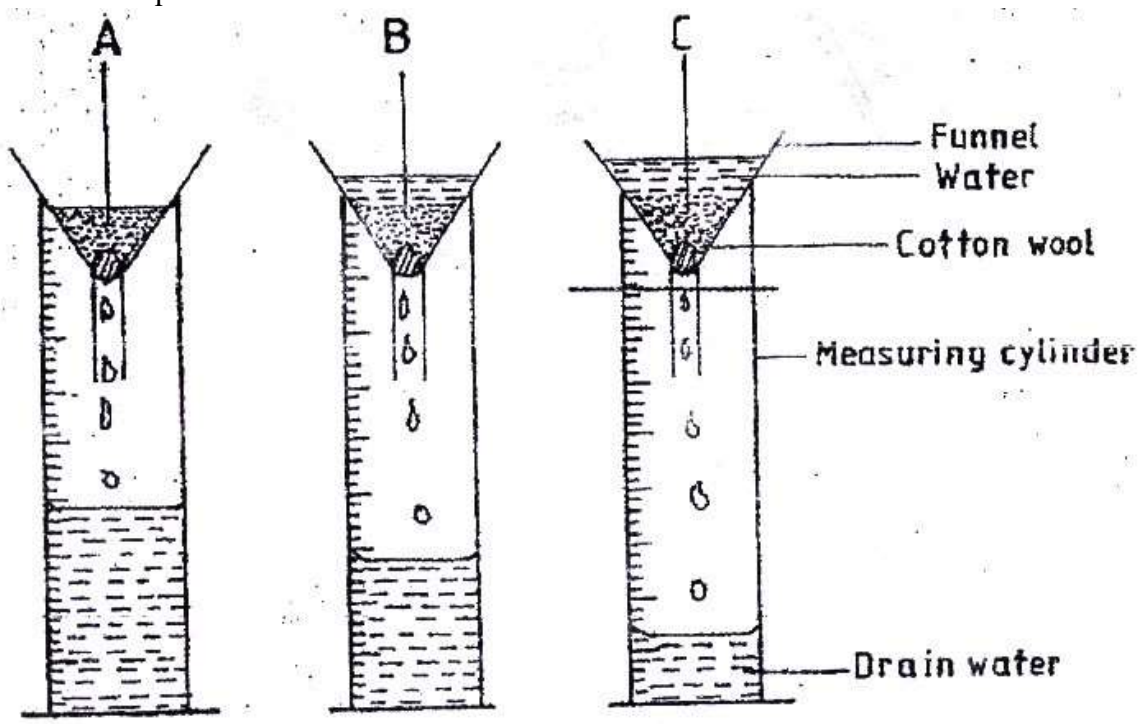
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(c) State two methods of controlling the diseases **(2mks)**

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23. The diagram below illustrates an experiment on soil. Study it carefully and answer the questions that follow



(a) State the aim of the experiment **(1 mk)**

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(b) If the volume of water illustrated in the measuring cylinders was observed after one hour, identify the soil samples labeled A and B.

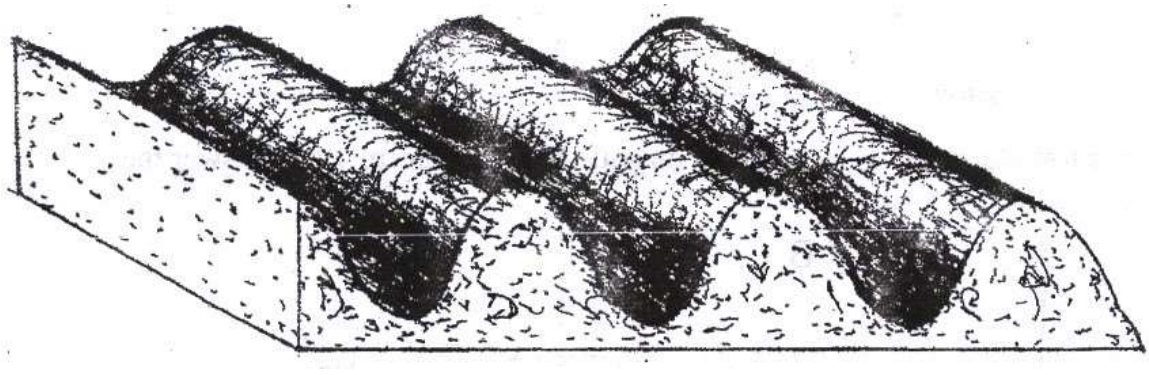
A …… **(½mk)**

B …….. **(½mk)**

(c) State two ways in which the soil structure of the soil sample labeled C above can be improved. **(2mks)**

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24. The diagram below illustrates a final seedbed after tertiary operation done during land preparation. Study it carefully and answer the questions that follow.



(a) Name the tertiary operation carried out on the seedback **(½mk)**

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(b) Describe how the tertiary operation named in (a) above is carried out

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(1 ½ mks)

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(c) Give two advantages of planting crops on the final seed back illustrated above
(2 mks)

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25. What is the function of each of the following substances in the preparation of compost manure?

(a) Wood ash **(1 mk)**

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(b) Top Soil **(1 mk)**

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(c) Wooden stick **(1mk)**

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(d) Adding manure **(1mk)**

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26. Name the deficient nutrient element in plants showing the following symptoms

(a) Stunted growth, die back of plant tips, leaves roll up and chlorosis along Margins of younger leaves **(½ mk)**

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(b) Yellowing of leaves appears first lower leaves turn brown and fall prematurely, stunted growth **(½ mk)**

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(c) Leaf curling, yellowing of leaves, tips and edges of leaves are scorched and have small mottles **(½ mk)**

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(d) Purpling of leaves, stunned growth, slender stalks and lateral buds remain dormant **(½ mk)**

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27. (a) Why is the use of the following items essential during the harvesting of tea?

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(i) Plucking stick **(1 mk)**

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(ii) Woven basket **(1 mk)**

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SECTION:C (4O marks)

Answer any TWO questions in this section

28. (a) Explain five advantages of vegetative propagation in crop production **(5 mks)**

(b) Outline five benefits of organic farming **(5 mks)**

(c) Discuss five factors to consider when choosing the type of irrigation system to use in a farm. **(10 mks)**

29 a) Describe ten safety precautions that should be taken when using herbicides to control weeds **(10 mks)**

b) Explain five biological agents of weathering **(10 mks)**

30. Describe tomato production under the following sub headings

a. Nursery management practices **(6mks)**

b. Land preparation **(4mks)**

c. Transplanting **(7mks)**

d. Harvesting **(3mks)**

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