

NAME..... INDEX NO.....

443/1
AGRICULTURE
PAPER 1
JULY/AUGUST, 2015
TIME: 2 HOURS

CANDIDATE'S SIGN.....

DATE.....

ALLIANCE HIGH SCHOOL POST TRIALS 2015
Kenya Certificate of Secondary Education
AGRICULTURE
PAPER 1
TIME: 2 HOURS

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 EXAMINER'S USE ONLY

| Section | Question | Maximum Score | Candidate's Score |
|-------------|----------|---------------|-------------------|
| A | 1 - 21 | 30 | |
| B | 22 - 25 | 20 | |
| C | 26 - 28 | 40 | |
| Total Score | | 90 | |

SECTION A (30 MARKS)

Answer all questions in this section in the spaces provided.

1. What is agroforestry? (1 mark)

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2. Give two roles of agriculture in industrial growth. (1 mark)

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3. Differentiate between intercropping and mixed cropping. (1 mark)

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4. Name four financial documents used in the farm. (2 marks)

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5. Give four types of micro catchments used in the farm. (2 marks)

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6. State four sources of soil acidity. (2 marks)

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7. State two advantages of carrying out pruning in banana production. (1 mark)

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8. Given that a price of Ksh.100 per bag, 20 bags of maize are demanded, but when the price changes to Ksh.80 per bag, 22 bags are demanded. Calculate the elasticity of demand. (½ mark)

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

- (i) 6.....
- (ii) 4.....

10. Give two ways in which pastures are classified. (1 mark)

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11. State four properties of soil influenced by its texture. (2 marks)

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12. Explain the meaning of the following terms as used in agricultural economics. (1 mark)

(i) Production function.

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(ii) Equimarginal returns.

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13. Name four practices carried out to improve and maintain permanent pasture. (2 marks)

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14. List two features of plastic pipes a farmer should consider before buying. (1 mark)

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15. Give four advantages of tissue culture. (2 marks)

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16. Give three stages of controlling devils horsewhip by mechanical means. (1½ marks)

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17. State four functions involved on marketing of cabbages. (2 marks)

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18. A farmer was advised to apply 40kg, P_2O_5 per hectare of maize at planting time. The phosphatic fertilizer available was single superphosphate containing 20% P_2O_5 .

(i) Calculate how much single superphosphate fertilizer she should apply in two hectares. (2 marks)

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19. State three situation when the opportunity cost is zero. (1½ marks)

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20. State four steps of gulley formation.

(2 marks)

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21. Define what a partial budget.

(½ mark)

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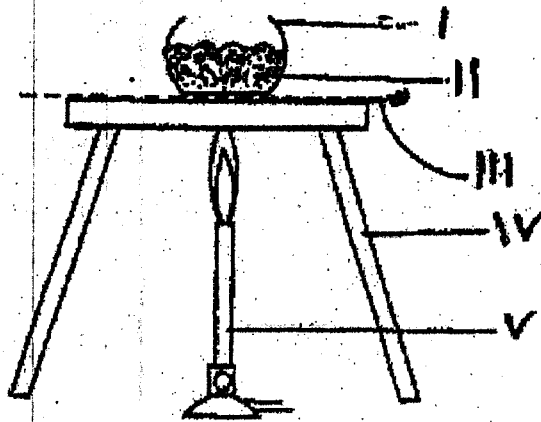
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SECTION B: (20 MARKS)

Answer all questions in this section in the spaces provided.

22. 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

(i) Identify the weeds. (2 marks)

G

H

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

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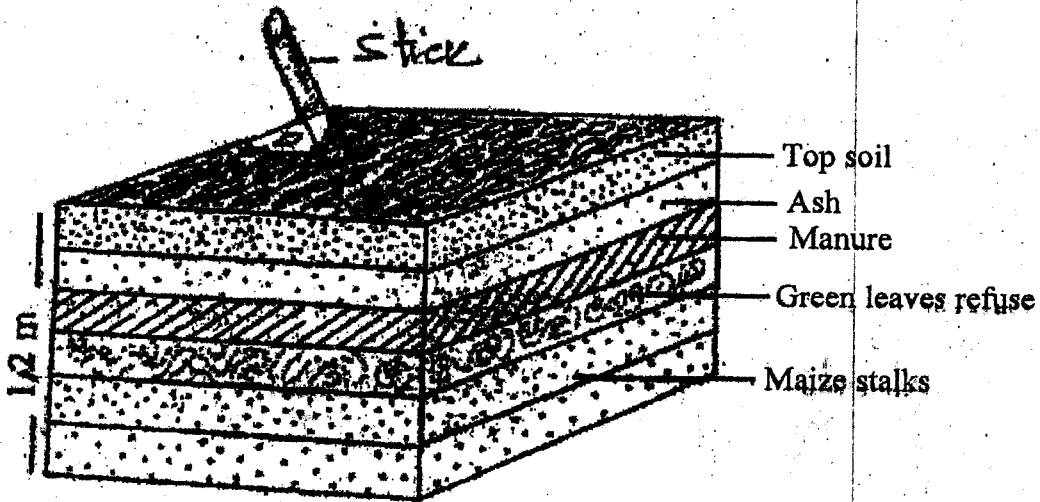
(iii) Why is it difficult to control weed in diagram G? (1 mark)

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25. The diagram below shows preparation of organic manure.



(a) Which type of organic manure is being prepared above? (1 mark)

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(b) Give the importance of inclusion of the following layers. (4 marks)

(i) Ash

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

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23. The following symptoms were noted on tomato seedlings in a farm.

- (a) Stem cankers on seedlings.
- (b) Spots on the seedling leaves.
- (c) Defoliation and falling of leaves.

(i) Name the disease affecting the crops. (1 mark)

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(ii) State a cause of the disease. (1 mark)

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(iii) State three control measures for the disease. (3 marks)

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24.



- (ii) Topsoil
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- (iii) Manure
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- (iv) A stick.....
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SECTION C: (40 MARKS)

Answer any two questions from the section.

26. (a) Describe five objectives of agricultural research in Kenya. (10 marks)
- (b) Describe ten cultural methods used to control pest. (10 marks)
27. (a) (i) What is open valuation? (2 marks)
- (ii) What is closing valuation? (2 marks)
- (iii) When is profit and loss account prepared? (1 mark)
- (b) Prepare a profit and loss account ending 31st Dec, 2003 using the following information. The farm made the following transactions. Purchased items listed below. (10 marks)

| Items | Kshs. |
|----------------------|-------|
| Seed and fertilizer | 3600 |
| Fuel worth | 3400 |
| Livestock feeds | 3000 |
| Machinery implements | 60000 |

The farm also expected the following:-

Kshs.5400 for vegetables sold to a neighbour school; Kshs.20,000 for beans sold, Kshs.10,000 for milk delivered to K.C.C. Kshs.46000 for coffee sold to local cooperative society. The farms opening valuation was Kshs. 80,000 and the closing valuation was Kshs.120,000.

- (i) Did the farm make a profit or loss? (1 mark)
- (ii) How much profit or loss did the farm make? (2 marks)
- (iii) Calculate the percentage profit of loss made. (2 marks)
28. (a) Outline the role of phosphorous in plants. (5 marks)
- (b) Describe the policies used by the government to regulate the amount of imported agricultural goods in Kenya (5 marks)
- (c) Describe ten uses of farm records in the farm. (10 marks)