

NAME.....INDEX.....DATE.....  
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443/1

AGRICULTURE

PAPER ONE

JULY / AUGUST 2010

2 ½ HOURS

**BELGUT / AINAMOI JOINT EVALUATION EXAMINATION  
KENYA CERTIFICATE OF SECONDARY EDUCATION (2010)**

443/1

AGRICULTURE

JULY/ AUGUST

**INSTRUCTIONS TO CANDIDATES**

- ❖ *This paper consists of sections A, B, and C.*
- ❖ *Answer ALL the questions in section A and B*
- ❖ *Answer any TWO questions from section C.*
- ❖ *Answers to should be written in the spaces provided after each question*

**For examiner's use only**

Section	Question	Max. score	Candidate's score
A	1- 20	30	
B	21 – 25	20	
C	26	20	
	27	20	
	28	20	
	Total Score		

**SECTION A (30 MARKS)**

***Answer all the questions in this section in the spaces provided***

1. Give three conditions which make it necessary to use a nursery in crop establishment (1 ½ mks)

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2. Explain the following terms as used in pasture establishment

(a) Seed inoculation (½ mk)

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(b) Over sowing (½ mk)

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3. Name four sources of agricultural credit in Kenya (2 mks)

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4. Differentiate between a cashbook and a ledger book (1 mk)

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5. State three factors that determine the harvesting stage of a crop (1½ mks)

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6. State four effects of over application of nitrogenous fertilizer in tomatoes (2 mks)

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7. Outline two ways through which rain drops initiate the process of erosion

(2 mks)

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8. State two biological methods of weed control (1 mk)

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9. List four types of pumps used to pump water from a source to the farm (2 mks)

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10. State two factors that would influence the quality of hay (1 mk)

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11. State four effects of date defoliation of forages (2 mks)

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12. State four qualities of a good farm manager (2 mks)

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13. State two functions of national cereals and produce board (N.C.P.B) (1 mk)

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14. List two non-chemical methods of pest control in a bean store (1 mk)

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15. List two advantages of tenancy system of land tenure (1 mk)

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16. State three causes of seed dormancy (1½ mks)

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17. Give four reasons why farmers are advised to raise tea in polythene sleeves (2 mks)

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18. Give two ways through which pruning helps in the control of diseases in crops (1 mk)

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19. State three factors that influences the carrying capacity in pasture management (1½ mks)

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20. List six agricultural support services available to farmers (3 mks)

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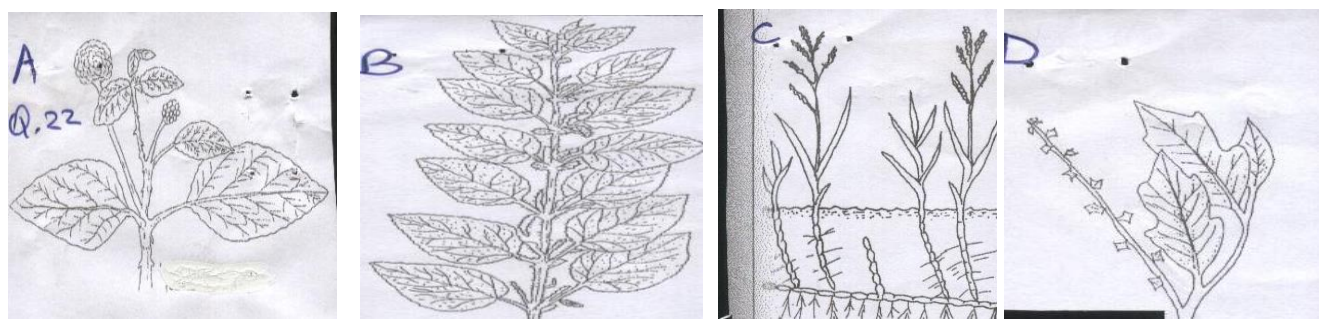
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**SECTION B (20 MARKS)**

**Answer all the questions in this section in the spaces provided**

21. The recommended rate of top dressing maize is 200kg per hectare. If CAN contains 25% N, how many 50 kg bags of CAN should a farmer apply to 0.25ha of maize crop to achieve the above rate (3 mks)

22. The following diagrams show weeds with different leaf morphological characteristics



(a) Arrange plants A, B and C in order of herbicide susceptible

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(b) Give a reason for your answers in (a) in reference to A and B above (2mks)

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(c) Identify weed D (1 mk)

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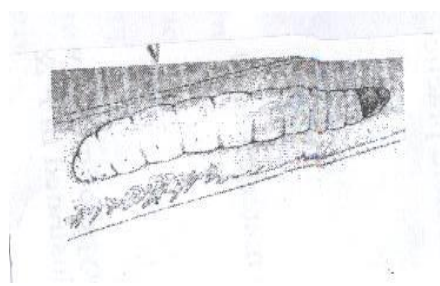
(d) Classify weed D according to growth cycle (1 mk)

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23. (a) State the Law of substitution as used in agricultural economics

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24. Study the diagram below and answer the questions that follow



a) Identify the pest in the diagram above (1mk)

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b) Give two damages caused by the pest identified in (a) above (2mks)

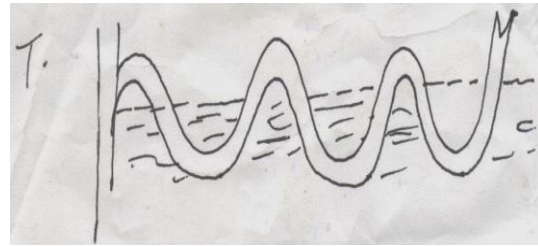
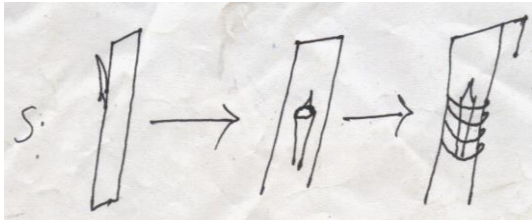
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c) Give two control measures for the above pest (2mks)

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25. Name the method of propagation illustrated in the diagrams S and T (2mks)



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**SECTION C (40 marks)**

**Answer any two questions in this section**

26. Explain field production of onions under the following sub headings.

- i) Nursery preparation and establishment. (7mks)
- ii) Transplanting (5mks)
- iii) Field operations (5mks)
- iv) Harvesting (3mks)

27. (a) (i) Describe the steps followed in land adjudication (5mks)  
(ii) Explain the effects of land preparation (5mks)

(b) Prepare a partial budget for Moi Mengich's farm using the information given below. Mr. Mengich has 10 hectares of which 4 hectares is planted with permanent cash crop (tea), of the remaining six hectares, at least one half must be rested at any one time. This year he intends opening 3 hectares for cotton production. With previous cotton crops hired casual labour at the rate of 100 man – days per hectare at ksh 10 per man- day. He is considering replacing casual labour with hired tractor doing the work for ksh 275 per hectare. The farmer anticipates using the tractors will cause an increase in average cotton field from 800kg to 900kg seed cotton per hectare worth 1.10 per kg from better cultivation and more timely planting. Harvesting costs are shs.22 per kg seed cotton. Prepare

a partial budget and advice the farmer whether the change is worth while or not. (5mks)

c) Prepare five ways of increasing labour efficiency in the farm. (5mks)

28. (a) Explain the benefits of Agro forestry. (8mks)

(b) Outline the procedure of transplanting the seedlings (6mks)

(c) State management practices, which should be carried out in tree nurseries (6mks)

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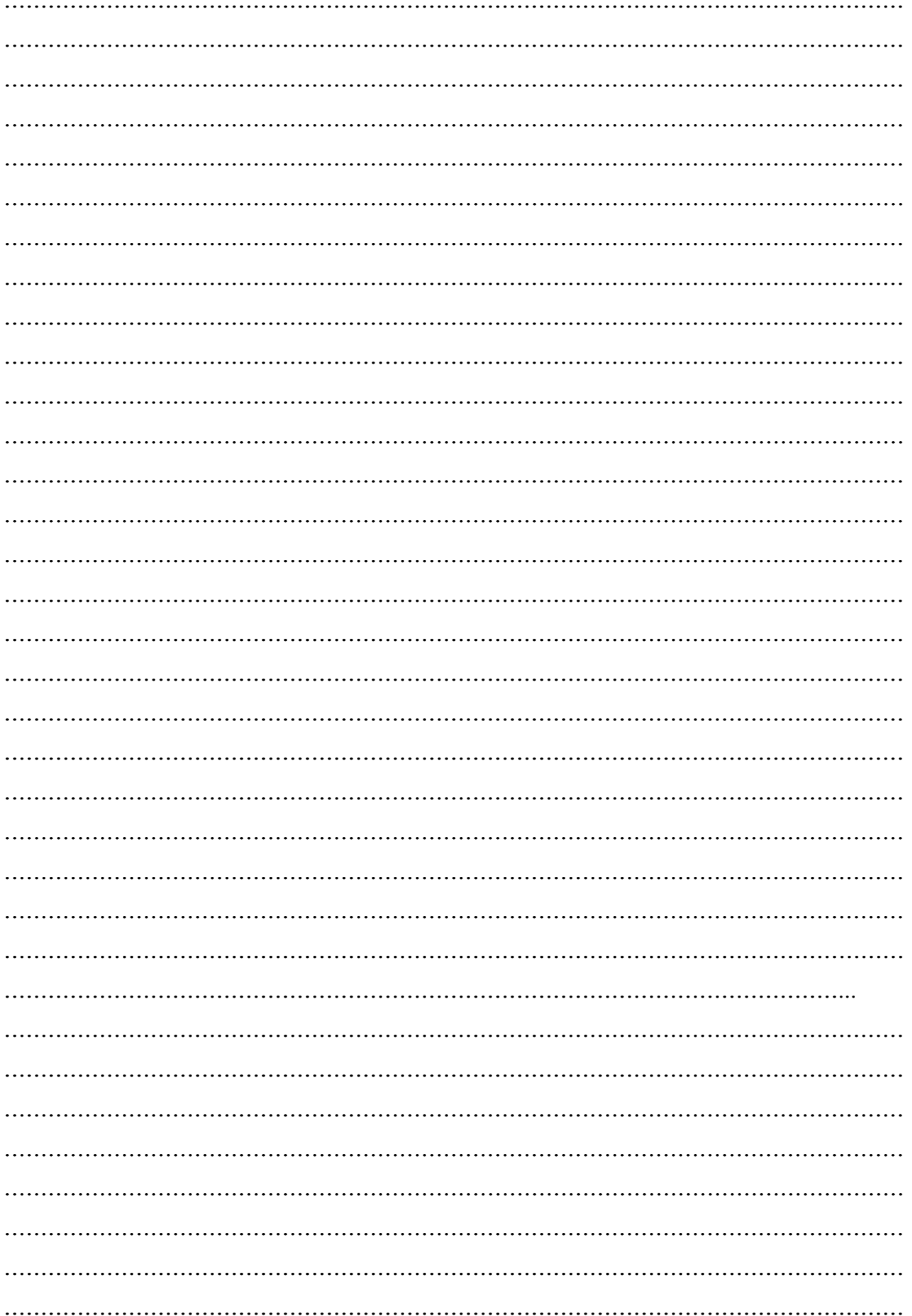
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