

Name

Index Number

School

Candidate's Signature

443/1

Date

AGRICULTURE

Paper 1

2015

2 hours

MAKUENI COUNTY KCSE 2015 PREPARATORY EXAMINATION

Kenya Certificate of Secondary Education

AGRICULTURE

Paper 1

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** the questions in sections **A and B**.
- (e) Answer any **two** questions in section **C**.
- (f) Answers should be written in the spaces provided in this booklet.
- (g) **This paper consists of 11 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.**
- (i) **Candidates should answer the questions in English.**

For Examiner's Use Only

Section	Question	Maximum Score	Candidate's Score
A	1-18	30	
B	19-22	20	
C		20	
		20	
Total Score		90	

Sponsored by H.E. Prof. Kivutha Kibwana, Governor, Makueni County.

TURN OVER

SECTION A (30 marks)

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

1. (a) State **four** characteristics of intensive farming. (2 marks)

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- (b) Give **two** examples of farming enterprises that are practised under intensive farming. (1 mark)

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2. What is organic farming? (1 mark)

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3. Give **four** biotic factors that affect agriculture negatively. (2 marks)

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4. Mention **three** features of rainfall that influence the choice of crops grown in an area. (1 ½ marks)

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5. State **four** factors that influence the quality and mineral composition of soils. (2 marks)

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6. Name the appropriate vegetative material for propagating the following crops:

(a) Cassava (½ mark)

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(b) Sweet potatoes (½ mark)

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(c) Pineapples (½ mark)

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7. Give **two** reasons why there is a higher amount of carbon (IV) oxide in the soil compared to that in the atmosphere. (1 mark)

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8. State **two** examples of working capital that a farmer would require in the production of wheat. (1 mark)

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9. Name a chemical used to achieve the following during water treatment.

(a) Coagulation of solid particles (½ mark)

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(b) Softening of water (½ mark)

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(c) Killing pathogens (½ mark)

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10. Outline **three** possible causes of chlorosis in crops. (1 ½ marks)

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11. Differentiate between a hybrid and a composite crop, as used in maize breeding. (1 mark)

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12. What are the functions of each of the following in the preparation of compost manure?

(a) Foundation stones (1 mark)

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(b) Wood ash (1 mark)

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(c) Top soil (1 mark)

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(d) A stick driven into the compost heap (1 mark)

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13. (a) What is opportunity cost? (½ mark)

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(b) A farmer has the option of either growing wheat, maize or beans in his one hectare piece of land. Wheat gives a return of Ksh. 40,000, maize a return of Ksh. 25,000 and beans a return of Ksh. 30,000.

What would his opportunity cost be if he chose to grow wheat? (½ mark)

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(c) Give **two** conditions under which opportunity cost is zero. (1 mark)

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14. State **three** advantages of landlord-tenancy tenure system. (1 ½ marks)

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15. State **two** disadvantages of contract production in agriculture. (1 mark)

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16. State **three** routine management practices for trees. (1 ½ marks)

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17. Give a reason why it is not advisable to add organic manure to a carrot field. (1 mark)

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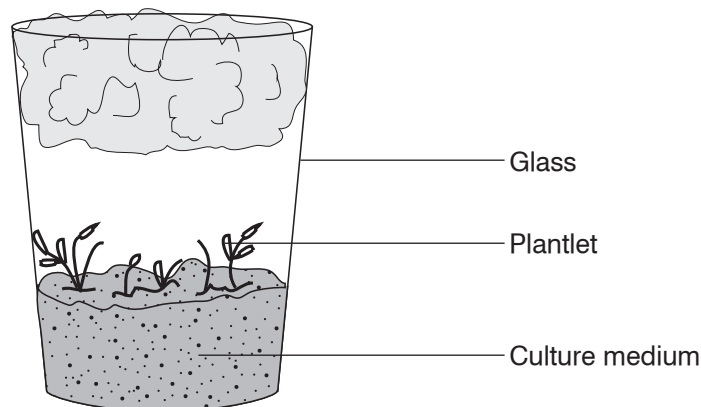
18. State **four** factors that can lead to failure in pasture establishment. (2 marks)

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SECTION B (20 marks)

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

19. The diagram below illustrates a method of crop propagation. Study it and answer the questions that follow.



(a) Identify the method of propagation shown in the illustration. (1 mark)

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(b) Name a crop successfully propagated using the method mentioned above. (1 mark)

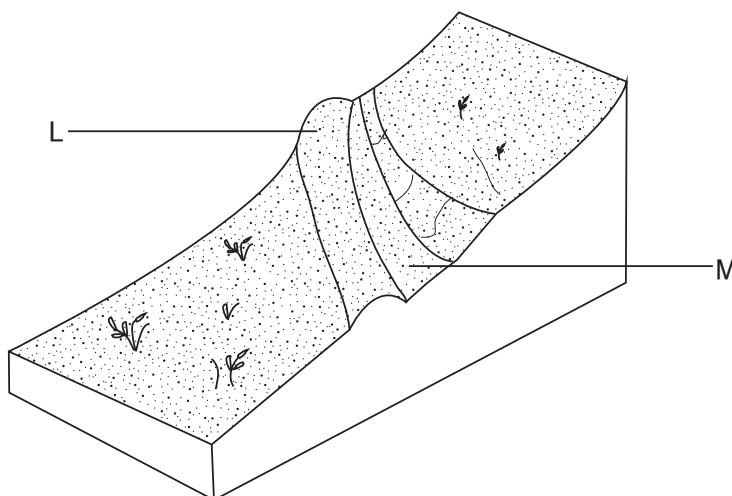
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(c) State **two** advantages of using this method of crop propagation. (2 marks)

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20. The figure below shows a certain structure which is used in soil and water conservation. Study it carefully and answer the questions that follow.



(a) Identify the structure illustrated above. (1 mark)

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(b) Name the parts labelled **L** and **M** and state the function of each part. (4 marks)

L

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Function

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M

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Function

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(c) Describe the process of constructing the structure shown above. (4 marks)

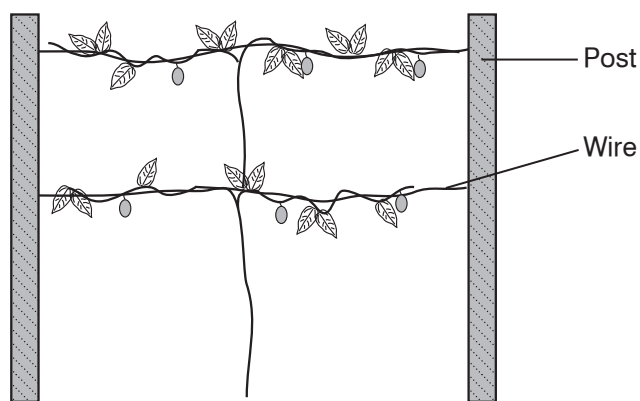
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21. The diagram below illustrates a field management practice. Study it carefully and answer the questions that follow.



(a) Identify the field practice. (1 mark)

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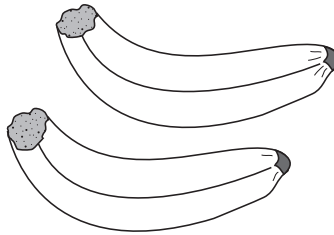
(b) Name a crop that can be managed using the above practice. (1 mark)

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(c) Give **two** reasons for carrying out the above practice. (2 marks)

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22. The diagram below shows banana fruits which have been attacked by a certain disease. Study it and answer the questions that follow.



(a) Identify the disease. (1 mark)

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(b) Name the causal organism of the disease. (1 mark)

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(c) State **one** method of controlling the disease. (1 mark)

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SECTION C (40 marks)

*Answer any **two** questions from this section in the spaces provided.*

23. (a) State and explain any **five** cultural methods of controlling weeds. (10 marks)

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

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24. (a) Describe the establishment and management of Guatemala grass from the time the land is ploughed using a mouldboard plough, to the time the pasture is ready for defoliation. (10 marks)

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(b) Give **six** precautions taken when harvesting cotton. (6 marks)

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(c) Explain the harvesting of cabbages. (4 marks)

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