

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

CANDIDATE'S SIGNATURE:..... DATE:.....

443/1

AGRICULTURE

TERM 2 2019

PAPER 1

2 HOURS

INSTRUCTIONS TO CANDIDATES

1. Write your name and date in the spaces provided above.
2. This paper consists of **three** sections **A, B, and C**.
3. Answer all the questions in section **A** and **B** any **two** questions from section C.
4. Answers should be written in the spaces provided.

FOR EXAMINERS USE ONLY

Section	Question	Maximum score	Candidates score
A	1 - 14	30	
B	15 - 18	20	
C	19 - 21	20	
		20	
<i>Total score</i>		90	

*This paper consists of 12 printed pages.
Candidates should check the question paper to ensure that all pages are printed as indicated*

SECTION A (30MARKS)

ANSWER ALL QUESTIONS IN THIS SECTION IN THE SPACES PROVIDED

1. State **four** disadvantages of extensive farming. (2 marks)

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2. State **four** human factors that lead to low crop production. (2 marks)

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3. State **four** characteristics of soil that influence crops planted. (2 marks)

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4. State **four** factors that influence the number of secondary cultivation. (2 marks)

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5. Mention **four** reasons for ridging in crop production. (2 marks)

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6. State **four** practices that encourage minimum tillage. (2 marks)

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7. (a) Name **three** non chemical methods of water treatment. (1½ marks)

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(b) State **four** advantages of trickle irrigation. (2 marks)

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8. State **four** importance of organic matter in sandy soil. (2 marks)

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9. Name **four** types of records kept by a poultry farmer. (2 marks)

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10. (a) Name **two** forms of nitrogen element is absorbed by plants. (1 mark)

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(b) Name any **two** methods of harvesting agro forestry trees. (1 mark)

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11. (a) State **four** importance of nursery practice in vegetable crop production. (2 marks)

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(b) Name **three** vegetative propagation material used to propagate pineapples. (1½ marks)

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12. State **four** effects of excessive application of nitrogen fertilizer on growing crops. (2 marks)

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13. State **four** cultural ways of controlling nematodes in a field of bananas. (2 marks)

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14. Distinguish between Pricking out and Rogueing. (1 mark)

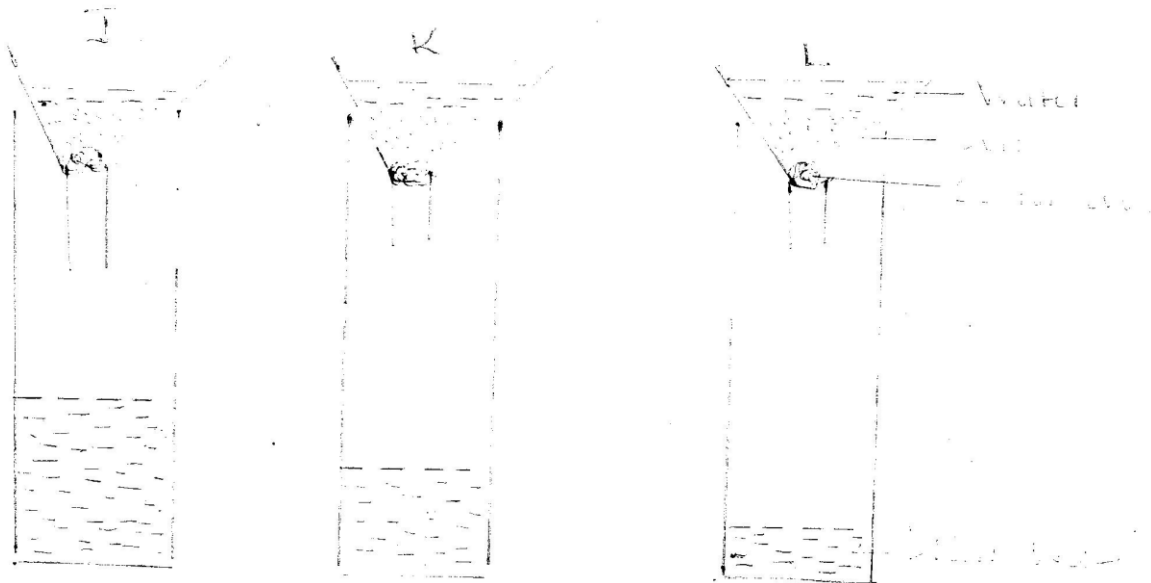
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SECTION B: (20 MARKS)

ANSWER ALL THE QUESTIONS IN THIS SECTION IN THE SPACES PROVIDED

15. The diagram below illustrates an investigation on property of soil using soil samples labeled J, K, and L



(a) If the levels of water drained in the diagram were observed after two hours, name the property of soil being investigated. (1 mark)

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(b) What is the relationship between the soil property named in (a) above and the size of soil particles. (1 mark)

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(c) Which soil sample would be suitable for growing paddy rice? (1 mark)

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(d) Name the type of soil. (2 marks)

J

L

16. Use the diagrams below that show pruned plants after budding to answer the questions that follow



(a) Which diagram shows the correct pruning cut? (½ mark)

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(b) Explain why the other **three** cuttings are wrong? (1½ marks)

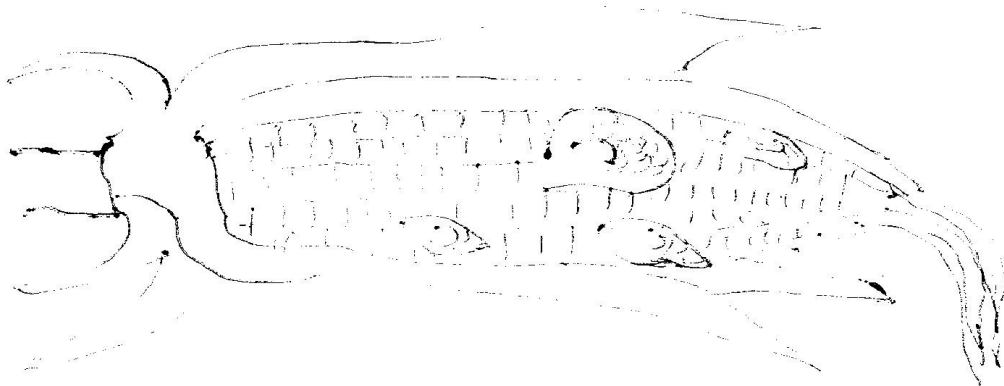
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(c) State **three** importance of pruning coffee. (3 marks)

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17. Use the diagram below that show maize cob attacked by a disease. Study it and answer the questions that follow.



(a) Identify the crop disease illustrated above. (1 mark)

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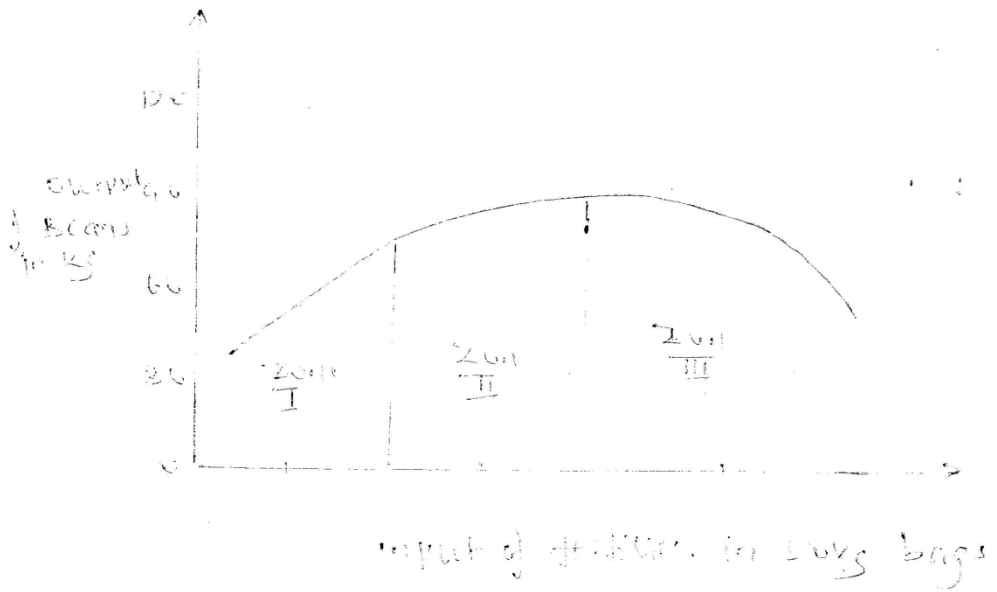
(b) A part from maize name other **two** crops attacked by the same disease. (2 marks)

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(c) State **two** control measure of the disease in (a) above. (2 marks)

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18. Below is a graph representing the law of diminishing returns. Study it carefully and answer the questions that follow.



(a) Explain what would happen to each of the three zones marked I, II, and III in relation to fertilizer input to beans output. (3 marks)

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(b) Which is the rational zone among **three** zones and why? (2 marks)

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SECTION C: (40MARKS)

Answer any two questions from this section in the spaces provided after question 21

19. (a) Describe **five** agencies involved in marketing of Agricultural products. (10 marks)
(b) Explain **six** practices carried out in the field that control maize diseases. (6 marks)
(c) State **four** importance of irrigation. (4 marks)
20. (a) Outline **five** farming activities which may encourage soil erosion. (5 marks)
(b) (i) Describe harvesting of cotton. (5 marks)
(ii) Explain the precaution during harvesting of sugarcane. (3 marks)
(c) Describe the production of carrots under the following sub-headings.
(i) Seedbed preparation (3 marks)
(ii) Field management (4 marks)
21. (a) Explain **seven** factors that influence seed rate during planting. (7 marks)
(b) Outline **five** factors necessary for proper functioning of farmers' co-operative societies in Kenya. (5 marks)
(c) Explain **8** ways farmers can overcome risks and uncertainties in a farming business. (8 marks)

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