

Name ..... Index No. ....

School .....Candidate's signature .....

Date .....

443/1

**AGRICULTURE**  
Paper 1

**July 2018**

Time 2 hours

**FORM FOUR END OF SECOND TERM EXAM**  
Kenya Certificate of Secondary Education  
**AGRICULTURE**  
Paper - 443/1  
**July 2018**  
Time: 2 hours

**INSTRUCTIONS TO CANDIDATES**

- Write your name and Index number in the spaces provided above.
- Sign and write the date of the examination in the spaces above.
- This paper consists of THREE sections A, B and C.
- Answer ALL questions in section A and section B and Two questions in section C.
- All answers must be written in this booklet.

FOR EXAMINER'S USE ONLY

Section	Questions	Maximum score	Candidate's score
A	1 - 17	30	
B	18 - 21	20	
C		20	
		20	
<b>Total score</b>		<b>90</b>	

*This paper consists of 8 printed pages*

*Candidates should check the question paper to ensure that all the printed pages are printed as indicated and no questions are missing.*

**SECTION A (30 marks)**

Answer ALL questions in this section on the spaces provided.

1. State two reasons for root trimming in a tree nursery. (1 mark)

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2. Give two forms in which nitrogen is absorbed from the soil by plants. (1 mark)

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3. State four financial documents that should be kept on farm. (2 marks)

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4. State four ways in which burning of vegetation may lead to loss of soil fertility. (2 marks)

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5. Give two for locating a nursery bed in a well sheltered place. (1 mark)

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6. List down four methods of treating water for use on the farm. (2 marks)

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7. Give two examples for each of the following categories of water pipes.

- a. Metal pipes. (1 mark)

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b. Hose pipes. (1 mark)

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8. Give two ways in which cover crops help to conserve water in the soil. (1 mark)

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9. The following are different types of costs used during production :  
Rent ; wages of casual labour ; fuel costs; salaries of permanent labour.  
Categorize the cost in to :

a. Fixed costs. (1 mark)

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b. Variable costs. (1 mark)

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10. What is the function of each of the following during water treatment.

a. Soda ash (1 mark)

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b. Alum (1 mark)

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c. Chlorine (1 mark)

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11. State four importance of agroforestry in the farm. (2 marks)

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12. a. Give two conditions in agricultural production under which opportunity cost is zero. (1 mark)

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b. Apart from opportunity cost, mention two other basic concepts of economics. (1 mark)

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13. State two ways in which agriculture contributes directly to industrial development. (1 mark)

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14. State four advantages of mixed farming. (2 marks)

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15. Give four importance of ridging in crop production. (2 marks)

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16. Name four elements whose deficiency causes chlorosis in plants. (2 marks)

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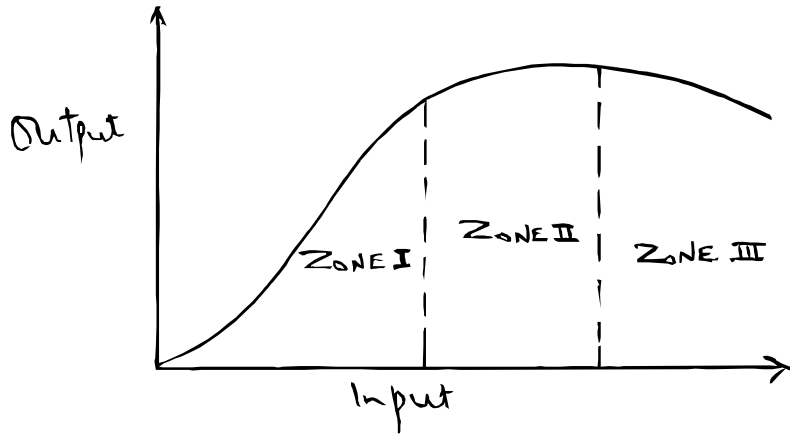
17. Differentiate between consumable goods inventory and permanent goods inventory. (2 marks)

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**SECTION B (20 marks)**  
**Answer All the questions.**

18. Below is a graphical representation of an economic law.



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

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b. Explain what happens in each of the zones in relation to output. (3 marks)

Zone I

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Zone II

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Zone III

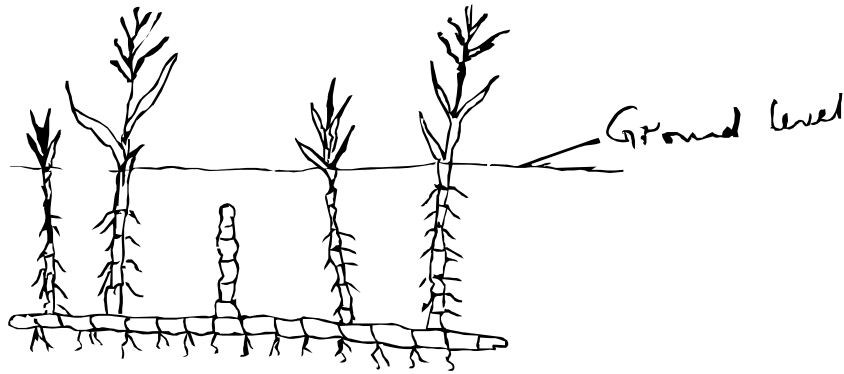
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c. Which of the three is the rational zone of production. (1 mark)

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19. The diagram below illustrates a common weed that inhabits both arable and pasture land.



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

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b. Classify the above weed according to :

i. Growth cycle (1 mark)

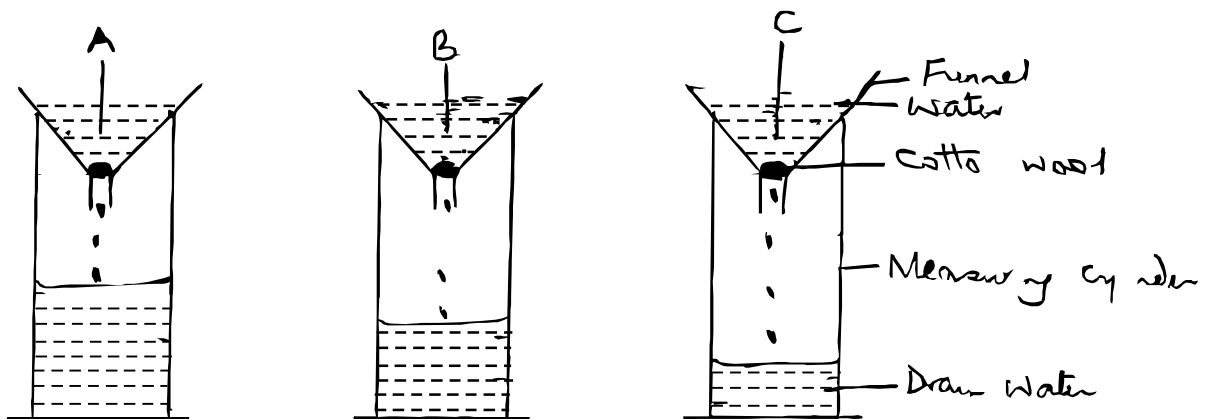
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ii. Plant morphology. (1 mark)

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c. Give two appropriate methods of controlling the above weed. (2 marks)

20. 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 mark)

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b. If the amount of water added in each soil was the same, identify the soil samples A, B and C. (3 marks)

A .....

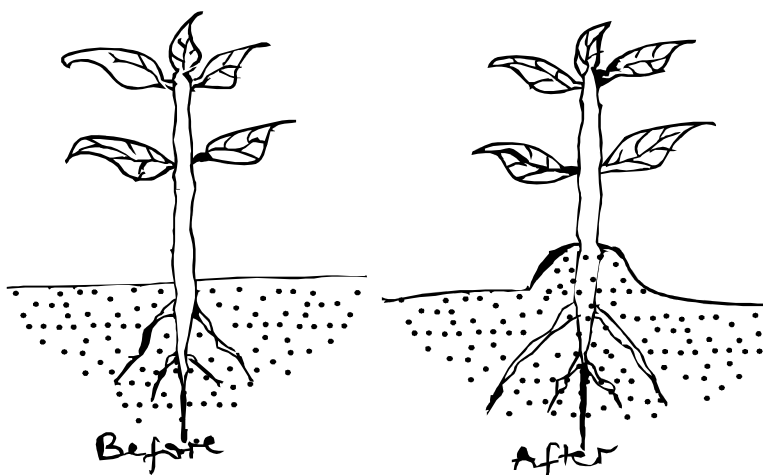
B .....

C .....

c. State two ways in which the soil structure of the soil sample C can be improved. (2 marks)

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21. Below is an illustration of a field practice carried out during crop production.



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

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b. Citing a crop in each case, give three importance of the above practice in crop production. (3 marks)

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