

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

SCHOOL: ..... DATE : .....

CANDIDATE'S SIGNATURE: .....

443/1

AGRICULTURE

PAPER 1

JULY / AUGUST 2014

TIME: 2 HOURS

## KURIA EAST SUB-COUNTY JOINT EXAMINATIONS COUNCIL 2014

*Kenya Certificate of Secondary Education (K.C.S.E.)*

AGRICULTURE

PAPER 1

TIME: 2 HOURS

### INSTRUCTIONS TO CANDIDATES:

- (a) Write your **Name**, **School** 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** and any **TWO** questions in section **C**.
- (e) Answers should be written in the spaces provided.

### FOR EXAMINER'S USE ONLY

SECTION	QUESTIONS	MAX. SCORE	CANDIDATE'S SCORE
A	1 – 19	30	
B	20 – 24	20	
C	25	20	
	26	20	
	27	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 pages printed as indicated and that no questions are missing.*

**SECTION A (30 MARKS)**  
**Answer ALL Questions in the Spaces Provided**

1. State **two** factors that determine the colour of soil during soil formation. (1mk)

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2. State **four** harmful effects of crop pests in maize production. (2mks)

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3. Give **two** properties of phosphatic fertilizers. (1mk)

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4. List **three** physical agents of chemical weathering. (1½mk)

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5. Mention **four** factors that influence the choice of implement to use in primary cultivation.

(2mks)

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6. State **four** reasons of cutting back in pyrethrum. (2mks)

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7. State **two** methods of table formation in tea production. (1mk)

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8. Name the chemical used to achieve the following during water treatment.

(a) Coagulation of solid particles. (1mk)

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(b) Softening of water. (1mk)

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(c) Killing pathogens. (1mk)

9. List three types of product-product relationship in Agricultural economics. (1½mks)

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10. Distinguish between contact and systemic herbicides in weed control. (1mk)

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11. List four biotic factors influencing Agriculture. (2mks)

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12. State two methods of harvesting Agro-forestry trees. (1mk)

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13. Give four advantages of title deed to a farmer. (2mks)

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14. State one way in which inorganic mulch helps to conserve soil water. (1mk)

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15. Give the meaning of the following terms as used in crop production.

(a) Closed season (½mk)

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(b) Earthing up (½mk)

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16. State four benefits of soil organisms in crop growth. (2mks)

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17. State four ways in which seeds can be treated before planting. (2mks)

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18. Give two ways of forage utilization.

(1mk)

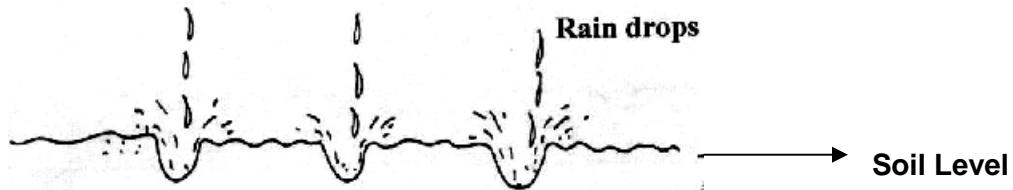
19. List four financial documents.

(2mks)

### SECTION B (20 MARKS)

Answer all questions in the spaces provided in this section

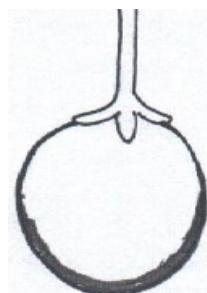
20. The diagram below illustrates a type of soil erosion. Study it carefully and answer the questions that follow.



(a) Identify the type of erosion illustrated above. (1mk)

.....  
(b) State two measures that could be used to control the type of soil erosion illustrated above. (2mks)

21. The diagram below illustrates a crop disease. Study it carefully and answer the questions that follow.



(a) Identify the disease illustrated above. (1mk)

.....  
(b) State three control measures for the disease illustrated above. (3mks)

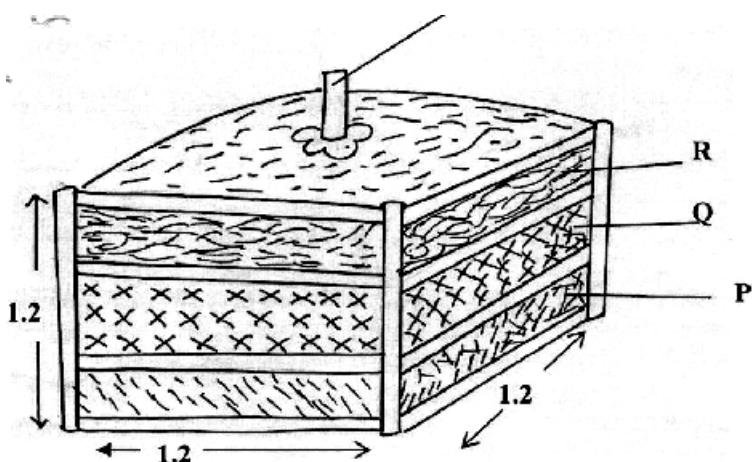
22. The table below illustrates the yield of maize in 90kg bags in response to application of different quantities of planting fertilizers. Study it carefully and answer the questions that follow.

Fertilizer input in 50kg bags	Maize output in 90kg bags	Average Product (AP)	Marginal Product (MP)
0	6		
1	10	10.0	10.0
2	24	12.0	—
3	31	—	7.0
4	36	—	5.0
5	40	8.0	—
6	43	—	3.0
7	43	—	0
8	40	—	—

- (a) Complete the table by filling in the blank spaces. (4mks)
- .....

- (b) Suggest the best stage of production in relation to the fertilizer application. (1mk)
- .....
- .....

23. The diagram below illustrates the preparation of compost manure. Study it carefully and answer the questions that follow. T



- (a) Identify the layers labeled P, Q and R above. (3mks)

P: .....

Q: .....

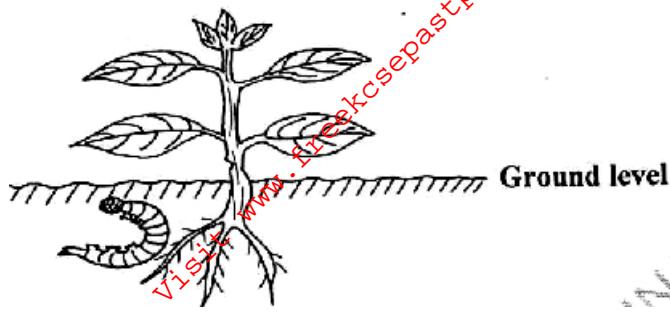
R: .....

- (b) State one use of each of the layers labeled P and T. (2mks)

P: .....

T: .....

24. Below is an illustration showing a cabbage seedling attacked by a pest. Study it carefully and answer the questions that follow.



(a) Identify the pest illustrated above. (1mk)

(b) State how the pest causes damage to the crop. (1mk)

(c) Give one method of controlling the pest illustrated above. (1mk)

### SECTION C

Answer any two questions in the spaces provided

25. (a) Explain the sources of capital to a farmer. (10mks)

(b) Explain the marketing functions involved in the marketing of maize. (10mks)

26. (a) Describe the preparation of silage in a farm. (10mks)

(b) Explain the methods of establishing pastures. (3mks)

(c) Describe the management of pastures. (3mks)

(d) Explain methods of draining water in water logged / marshy areas. (4mks)

27. (a) Explain the uses of water on a farm. (8mks)

(b) Explain reasons for pruning in crops. (7mks)

(c) Describe the procedure of sowing vegetable seeds in a nursery. (5mks)

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