**Name………………………………………………… Index No. …………………….**

**School ………………………………………………...**

**443/1**

**AGRICULTURE**

**PAPER 1**

**THEORY**

**TIME: 2 HOURS**

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

# INSTRUCTIONS TO CANDIDATES

* This paper consists of THREE sections A,B and C.
* Answer ALL questions in section A and B and any two from section C.
* All answers should be written in the spaces provided

**For Examiner’s Use Only**

|  |  |  |  |
| --- | --- | --- | --- |
| **Section** | **Questions** | **Maximum** | **Candidate’s Score** |
| A | 1 – 12 | 30 |  |
| B | 13 – 16 | 20 |  |
| C |  | 20 |  |
|  |  | 20 |  |
| **TOTAL** | 90 |  |  |

*This paper consists of 12 printed pages.*

#### Candidates should check the question paper to ensure that all pages are printed as indicated

*and no questions are missing*

**SECTION A( 30 MARKS)**

**Answer all questions in the spaces provided**

1. What is an inorganic fertilizer. (1mk)

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2. Give three branches of horticultural farming. (3mks)

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3. State FOUR ways by which nutrient phosphorous is lost from the soil. (2mks)

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4. Give three disadvantages of row planting in crop establishment. (3mks)

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5. Name three methods that may be used to detect mineral nutrient deficiency in crop farming. (3mks)

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6. Give two causes of root forking as of carrots. (2mks)

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7. Outline three negative effects of wind on farming. (3mks)

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8. What is opportunity cost? (1mk)

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9. Give three benefits of using polythene sleeves in raising seedling. (3mks)

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10. State three biotic factors that influence agriculture positively. (3mks)

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11. Give three types of product-product relationships in production economics. (3mks)

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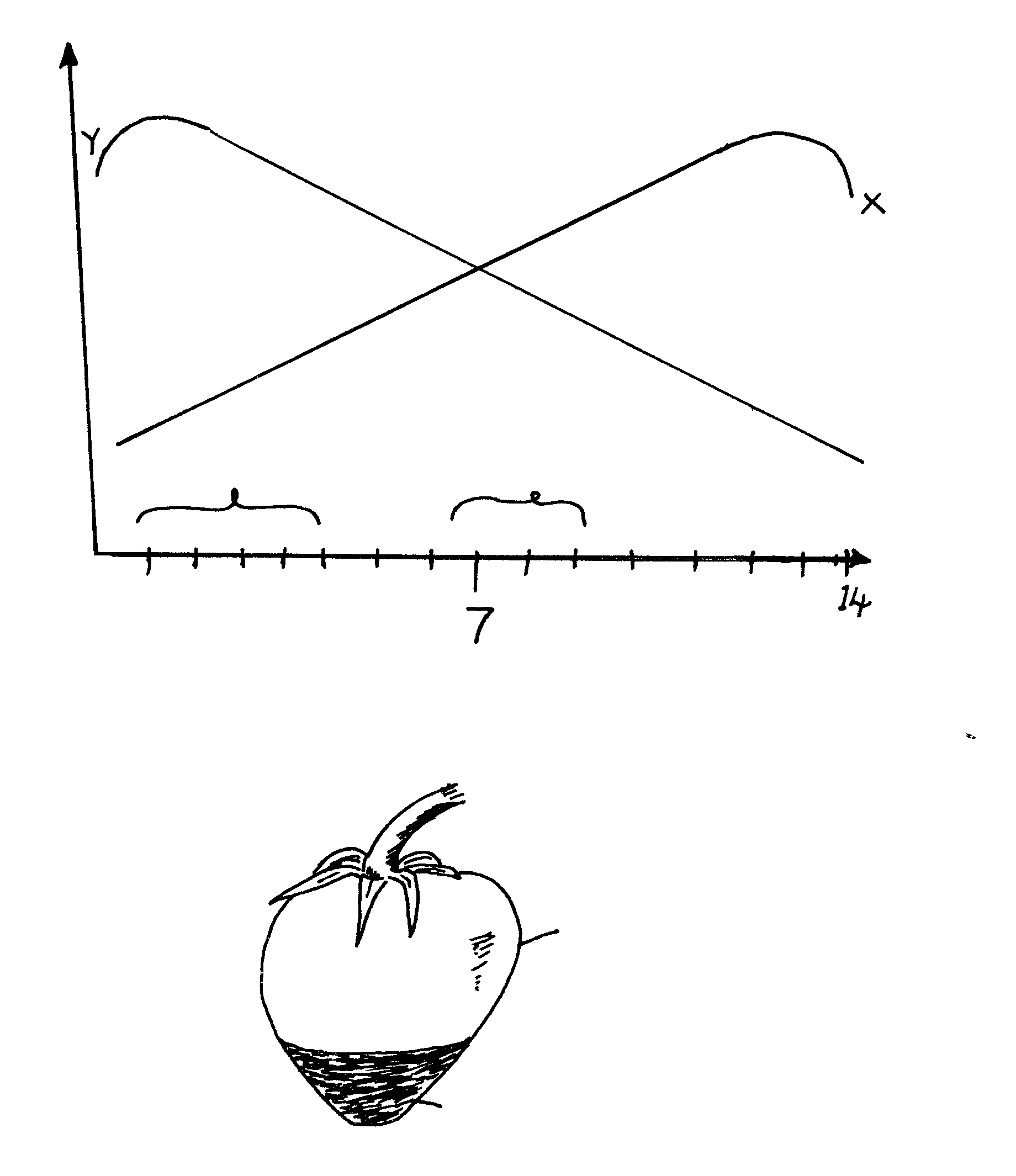
12. What advantages are there when farmers use tissue culture in propagation of their crops? (3mks)

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**SECTION B ( 20 MARKS)**

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

13. Study the graphs below, showing relationship between soil pH and nutrient availability.





a) What does soil pH stand for. (1mk)

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1. Explain the two graphs X and Y.

Graph X: (1mk)

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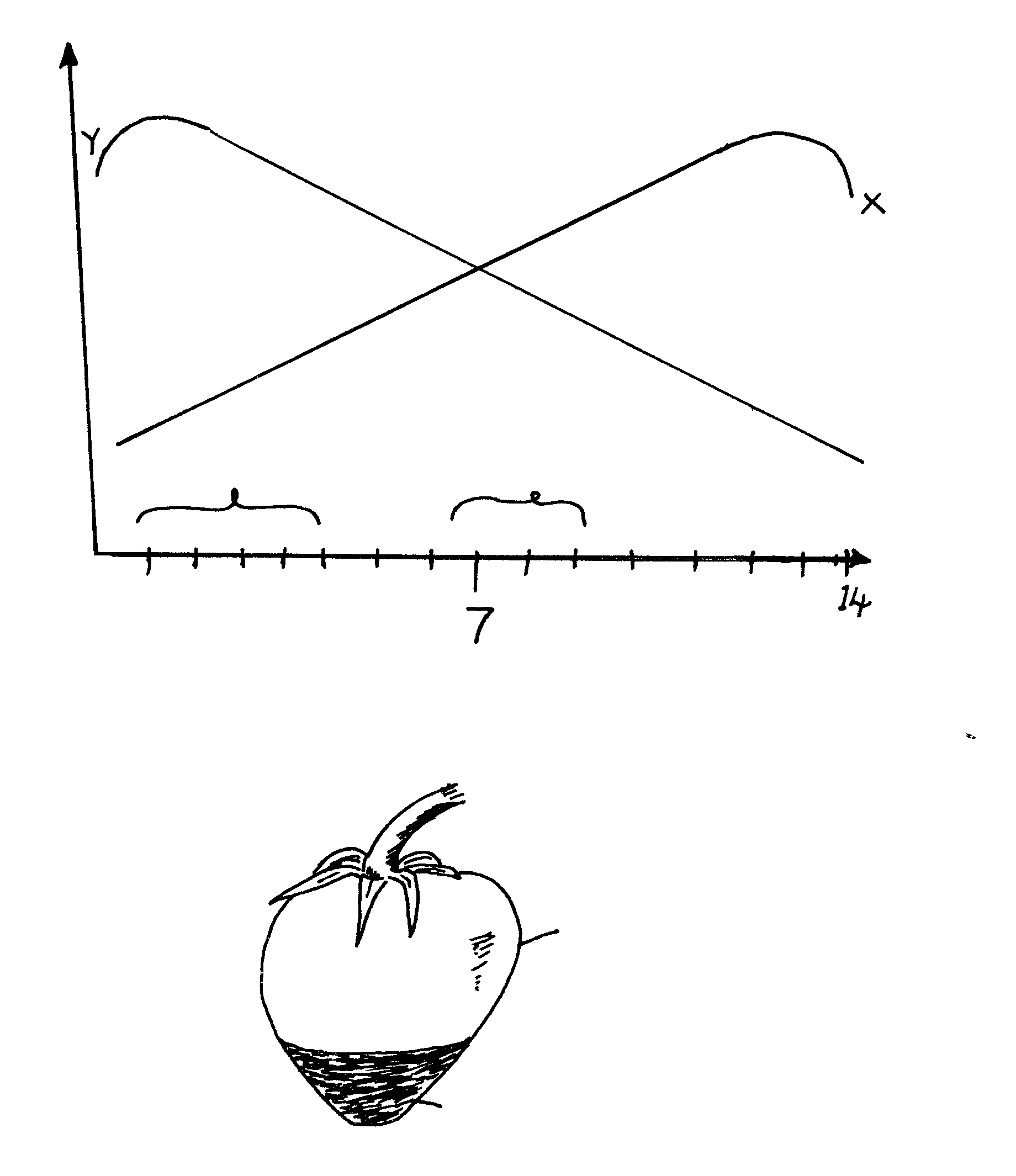
Graph Y (1mk)

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c) Suggest what is likely to happen to crops at pH of between 2 and 5 (from your study of the graph above) (1mk)

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14. The diagram below shows a physiological disease in tomatoes. Use it to answer the questions that follow



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

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b) Give three causes of the condition shown above. (3mks)

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c) Suggest two control measures of the disease. (2mks)

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15. Below is an extract of a cash sale receipt. Study it and answer the questions that follow.

a) Define the document below (1mk)



**Goods once sold are not returnable**

b)Teacher Jane bought goods for her Home Science practical lesson from Shamji Traders on July 2nd 2007, as below.

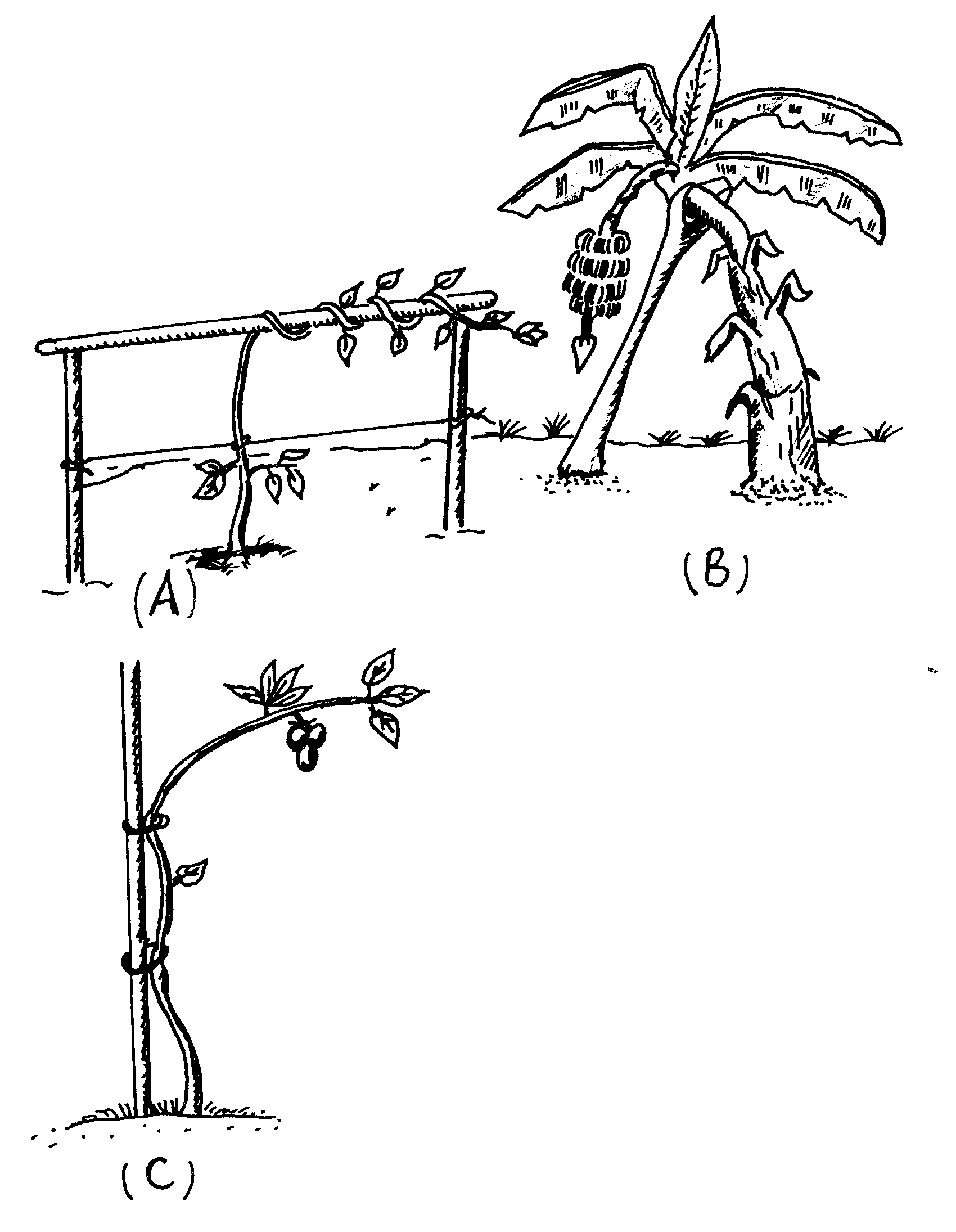
3kgs of sugar at Ksh. 75 each, cooking fat of ½ kg at Ksh. 120 per kg, 20kgs of Rice at Ksh.40 per kg 4packets of 2kg wheat flour each at Kshs. 75 per packet, 2 packets of baking powder at Ksh. 20 per packet and 3kgs minced meat each at Ksh. 150.

Post this information in cash sale above. (5mks)

c) Suppose teacher Jane bought the commodities above on credit, name the document that could have been used in such a transaction. (1mk)

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16. Study the illustrations showing field practices below.



a) Identify the field practices shown in the diagrams above. ( 1 ½ mks)

A ……………………………………………………………..

B …………………………………………………………….

C …………………………………………………………….

b) Give three examples of crops for which field practice A above is done. ( 1 ½ mks)

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**SECTION C ( 40 MARKS)**

**Answer any TWO questions in this section**

17. a) Discuss the shortcomings of weeds in mixed farming. (8mks)

b) Explain the cultural pest control methods that can be used by crop farmers. (12mks)

18. Describe production of maize for grain from land preparation to harvesting. (20mks)

19. a) Explain six importance of water in an agricultural farm. (6mks)

b) Describe the process of water treatment for human consumption. (14mks)

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