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

**School……………………………………………. Signature…………………………**

443/1

**AGRICULTURE**

Paper 1

**Time: 2 Hours**

**FORM 4**

**Kenya Certificate of Secondary Education**

## INSTRUCTIONS TO CANDIDATES

* *This paper consists of THREE sections A, B and C.*
* *Answer ALL questions in section A and B and any TWO questions in section C.*
* *Answers to ALL questions MUST be written in the spaces provided.*

*For Examiner’s Use only*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Section** | **Question** | **Maximum Score** | **Candidates Score** | |
| **A** | **1-15** | **30** |  | |
| **B** | **16-19** | **20** |  | |
| **C** | **20-22** | **40** |  | |
| **TOTAL** | | | |  | |

**Section A. [30mks]**

**Answer ALL the questions from this section.**

1. List four advantages of mixed farming. [2mks]
2. State two ways in which polythene sheets help to conserve water in the soil when used as mulching materials. [2mks]
3. Give four factors which determine crop spacing. [4mks]
4. List four characteristics of a crop grown for green manure. [2mks]
5. Mention four factors considered when selecting materials for planting. [2mks]
6. State three advantages of timely harvesting of crops. [3mks]
7. What is organic farming? [1mk]
8. State two characteristics of grade A cotton. [2mks]
9. Give two conditions that lead to sub-division of agricultural land. [2mks]
10. State the importance of each of the following practices. [3mks]
11. Seed dressing
12. Root trimming
13. Hardening off
14. State four information contained in a title deed. [2mks]
15. Mention four factors that influence the pyrethrine content in pyrethrum. [2mks]
16. State four problems that may be brought about by hardpans in crop land. [2mks]
17. Give four precautions taken to prevent pest attack in stored produce. [2mks]
18. State the importance of flooding in the growing of paddy rice. [2mks]

**SECTION B [20MKS]**

**Answer ALL the questions in this section**

1. The following are mechanical soil conservation measures, study them and answer the questions that follow.
2. Identify the structures A and B. [1mk]
3. Briefly describe how each of these structures is constructed and how they help to control soil erosion. [2mks]
4. Which is the most applicable areas for each method of soil conservation. [1mk]
5. Using arrows indicate the direction of slope of each structure. [1mk]
6. Study the plant condition on diagram below and answer the questions that follow
7. Identify the disease represented by the diagram. [1mk]
8. Name any other part of the plant that can be affected by the same disease. [1mk]
9. Name any other three crops which can be affected by the disease.

[11/2mks]

1. List three control measures taken to control the disease. [11/2mks]
2. Study the diagrams below and answer questions that follow
3. Identify the propagation method illustrated above. [11/2mks]
4. State four factors which influence the success of the above method. [2mks]
5. List the tools and materials needed for the propagation. [11/2mks]
6. Give two reasons why the union has to be tied with a polythene paper? [1mk]
7. The following diagram shows propagation of sugar cane.
8. Identify the propagation material P and Q. [1mk]
9. When is Q less suitable as planting material. [1mk]
10. Describe the treatment of P before planting to control ratoon stunted disease. [1mk]
11. Illustrate how P and Q should be placed in furrows during planting. [2mks]

**SECTION C [40MKS]**

**Answer any TWO questions in this section in the foolscaps provided.**

20a) Describe the field production of tomatoes from transplanting to harvesting. [15mks]

b) Explain the post harvest handling of tomatoes from farm to the market. [5mks]

21.The transaction below shows Mr Makomeres Financial position in his farm business for the year 2004.

Kshs. Cts.

Purchase of pesticides 3,000 00

Milk sales 8,000 00

Sales of goats 5,000 00

Construction of store 10,000 00

Closing valuation 16,000 00

Depreciation of machinery 3,000 00

Interest payable 1,750 00

Purchase of farm tools 800 00

Veterinary bills 1,400 00

Sales of cabbages 1,750 00

Wages 10,000 00

Sale of one heifer 10,000 00

Opening valuation 12,000 00

Sales of tea 5,000 00

1. Prepare a profit and loss A/c for Makomere’s farm. [12mks]
2. What percentage profit or loss did he make during the year 2004 [8mks]

b) Explain how the farmers adjust risks and uncertainties in farming. [6mks]

22a) What is gapping? [1mk]

b) Explain importance of gapping in crop production

c)Describe factors that may lead to many gaps in the farm. [6mks]

d)Explain how you would carry out gapping in cabbage production. [5mks]

e )At which period of time is done after germination should gapping be done and why?

[3mks]