**ST.CLARE GIRLS HIGH SCHOOL NAME ………………………………………………….**

**443/1 OPENER EXAMINATION**

**AGRICULTURE**

**PAPER 1**

**FORM 4**

**TIME: 2 HOUR**

1. State **four** reasons why ridging is important in crop production. **(2marks)**

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1. Define the term sub-soiling. **(1mark)**

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1. Give **four** features of plastic pipes a farmer should consider before buying the pipes. **(2marks)**

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1. State **two** means by which water can be conveyed from the place of storage to where it is needed on the farm. **(1mark)**

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1. State **four** factors to be considered before deciding on irrigation system in crop production.

 **(2marks)**

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1. Give **four** reasons why most farmers do not use farm yard manure. **(2marks)**

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1. State **two** roles of Sulphate of Ammonia in the preparation of compost manure. **(1mark)**

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1. State **two** farming methods that contribute to loss of soil fertility **(1marks)**

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1. List two labor records. **(1mark)**

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1. Differentiate between scarcity and opportunity cost. **(1mark)**

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1. Fill in the table. **(2marks)**

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| --- | --- |
| **Plant Part** |  **Crop Propagated** |
|  Slips  |  |
|  |  Sisal  |
|  |  Sugarcane  |
|  Splits  |  |

1. Outline **two** advantages experienced by planting bean crop in the correct spacing. **(1mark)**

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1. State **four** qualities of a mother plant that should be considered when selecting vegetative materials for planting. **(2marks)**

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1. Distinguish between direct sowing and over sowing in regard to pasture establishment. **(1mark)**

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1. Define Integrated Pest Management. **(1mark)**

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1. State **four** cultural measures that a farmer can use to control pests in maize field. **(2marks)**

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1. Mention **two** fungal diseases that attack bean crop in the field. **(1mark)**

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1. Give **two** precautions that a farmer should observe while spraying crops**. (1mark)**

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**SECTION B (20 MARKS)**

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

1. The diagrams below illustrate some soil structures. Study them and answer the questions that follow.



**X**

**Y**

1. Identify the soil structures **F** and **G.**  **(2mark)**

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1. Name the part labeled **X** and **Y** in diagram **F**. **(1mark)**

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1. State **two** ways through which structure **G** influence crop production. **(2marks)**

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20.The diagram **below** illustrates how a plucking table is developed in a given crop.



 (a) Identify the crop where the above practice is carried out. **(1 mark)**

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 (b) Name the method.  **(1mark)**

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 (c) Mention **three** advantages of pruning a crop. **(3 marks)**

21.The diagram below shows a banana tissue culture. Study it and answer the questions that follow.

 

(a) Name **two** ways of inducing the rooting of plantlet **(1mark)**

 (b) Outline **three** steps followed in the development of tissue culture. **(3marks)**

 (c) State **two** advantages of propagating crops by tissue culture technique. **(1mark)**

**SECTION C (30 MARKS)**

***Answer ANY TWO questions from this section in the spaces provided***

1. a) Explain **ten** factors that influence soil erosion on the farm. (10marks)

 b) State **five** disadvantages of having hard pan layer in a soil profile. (5marks)

 c) State **five** problems associated with land lordship and tenancy (5marks)

20 a) Describe **five** reasons why earthing up is important in crop production. (5marks)

b) Explain **five** factors which contribute to the competitive ability of weeds. (5marks)

c) Describe **various ways** through which the Kenyan government can help to control the negative effects/disadvantages of Pastoral-nomadism. (10marks)

1. a)Describe the establishment of kales under the following sub – headings:

 i) Establishment in the nursery **(3marks)**

 ii) Transplanting of seedlings. **(5marks)**

 b Describe the harvesting of pyrethrum under the following subheadings.

 i) Stage of harvesting. **(1mark)**

 ii) Method and procedure **(3marks)**

 iii) Precautions in harvesting. **(3marks)**

 c) State **five** factors that a farmer should consider before applying fertilizer in a maize field.  **(5marks)**