NAME………………………………………………………………….ADM…………………

DATE…………………………………………………………………SIGN………………….

**AGRICULTURE FORM THREE**

**END OF TERM THREE 2023**

**PAPER ONE (443/1)**

**INSTRUCTIONS TO STUDENTS**

This paper has three sections **A**,**B** and **C**

Answer **ALL** the questions in section **A** and **B** in the spaces provided

Answer only **TWO** questions in section **C** in the spaces provided

**FOR EXAMINERS USE ONLY**

|  |  |  |
| --- | --- | --- |
| **SECTION** | **MAXIMUM SCORE** | **STUDENTS SCORE** |
| **A** | **30** |  |
| **B** | **20** |  |
| **C** | **20** |  |
|  | **20** |  |
| **TOTAL** | **90** |  |

***SECTION A***

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

1. **Outline three reasons for treating water for use in the farm ( 1 ½ mks)**
2. **Give four advantages of carrying out minimum tillage (2mks)**
3. **State four disadvantages of communal land tenure system (2mks)**
4. **Name any four surface sources of water in the farm (2mks)**
5. **State four important reasons of keeping farm records in the farm…… .(2mks)**
6. **Give two ways in which organic mulch helps in the control of soil erosion (1mk)**
7. **Name any two examples of farm structures that are used in crop production (1mk)**
8. **Give two reasons for siting a nursery bed at a well sheltered place (1mk)**
9. **State four reasons as to why burning is not recommended in land …………. (2mks)**
10. **Give four advantages of using certified seeds during planting…… (2mks)**
11. **Why is it necessary to allow freshly cut sorghum (Columbus grass) to wilt before**

**Feeding it to livestock? (1mk)**

1. **Give two roles of nitrogen in maize production (1mk)**
2. **Distinguish between the terms hybrid and composite as used in maize breeding ( 1mk)**
3. **Outline three important aspects of rainfall a farmer should consider when growing crops (1 ½ mks)**
4. **State two harmful effects of strong wind in agricultural production (1mk)**
5. **Give two ways in which cover crops help to conserve water in the soil (1mk)**
6. **Give a reason for carrying out each of the following management practices on a tree nursery** 
   1. **Pricking out (1 mk)**

**(b) shading (1mk)**

1. **Outline two ways of controlling damping off disease off disease of cabbages (1mk)**
2. **State four effects of pests with both piercing and sucking mouth parts on crops**

**(2mks)**

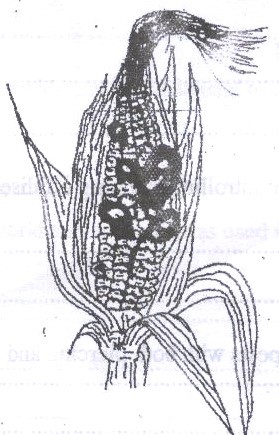
1. **Name four natural factors that may influence soil erosion (2mks)**

**21) What do you understand by the term opportunity cost ( 1 mk)**

**SECTION B ( 20 MARKS)**

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

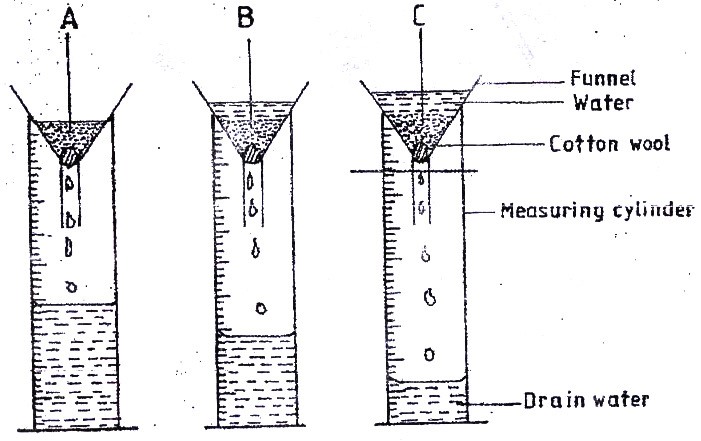
**22) The diagram below illustrates a maize cob attacked by a disease. Study it carefully and answer the questions that follow.**

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* 1. **Identify the disease ( 1 mk)**
  2. **Apart from maize, give two other crops that may be attacked by the disease**

**( 1mk)**

* 1. **State two methods of controlling the diseases (2mks)**

1. **The diagram below illustrates an experiment on soil. Study it carefully and answer the questions that follow **
   1. **State the aim of the experiment ( 1 mk)**

* 1. **If the volume of water illustrated in the measuring cylinders was observed after one hour, identify the soil samples labeled A and B.**

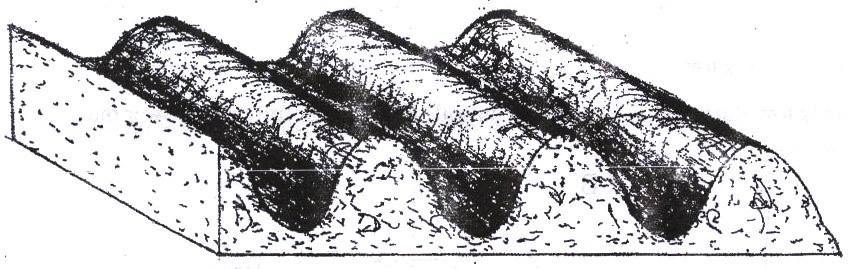
**A ( ½mk)**

**B ( ½mk)**

**(c) State two ways in which the soil structure of the soil sample labeled C above**

**can be improved. ( 2mks)**

1. **The diagram below illustrates a final seedbed after tertiary operation done during land preparation. Study it carefully and answer the questions that follow.**

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* 1. **Name the tertiary operation carried out on the seedback (½mk)**
  2. **Describe how the tertiary operation named in (a) above is carried out**

**( 1 ½ mks)**

* 1. **Give two advantages of planting crops on the final seed back illustrated above ( 2 mks)**

1. **What is the function of each of the following substances in the preparation of compost manure?** 
   1. **Wood ash ( 1 mk)**
   2. **Top Soil ( 1 mk)**
   3. **Wooden stick (1mk)**
   4. **Adding manure (1mk)**
2. **Name the deficient nutrient element in plants showing the following symptoms** 
   1. **Stunted growth, die back of plant tips, leaves roll up and chlorosis along**

**Margins of younger leaves ( ½ mk)**

* 1. **Yellowing of leaves appears first lower leaves turn brown and fall**

**prematurely, stunted growth ( ½ mk)**

* 1. **Leaf curling, yellowing of leaves, tips and edges of leaves are scorched and**

**have small mottles ( ½ mk)**

* 1. **Purpling of leaves, stunned growth, slender stalks and lateral buds remain**

**dormant ( ½ mk)**

1. **(a) Why is the use of the following items essential during the harvesting of tea?** 
   * 1. **Plucking stick ( 1 mk)**
     2. **Woven basket ( 1 mk)**

**SECTION:C (4O marks)**

**Answer any TWO questions in this section**

1. **(a) Explain five advantages of vegetative propagation in crop production ( 5 mks)** 
   * 1. **Outline five benefits of organic farming ( 5 mks)**
     2. **Discuss five factors to consider when choosing the type of irrigation system to use in a farm. ( 10 mks)**

**29 a) Describe ten safety precautions that should be taken when using herbicides to**

**control weeds (10 mks)**

**b) Explain five biological agents of weathering (10 mks)**

1. **Describe tomato production under the following sub headings**
2. **Nursery management practices (6mks)**
3. **Land preparation (4mks)**
4. **Transplanting (7mks)**
5. **Harvesting (3mks)**