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**EAGLE II JOINT EXAMINATION- 2021**

**AGRICULTURE**

**PAPER 1**

**THEORY**

**TIME: 2HRS**

**INSTRUCTIONS TO CANDIDATES**

1. Write your name and Admission number in the spaces provided above
2. Sign and write the date of the examination in the spaces provided above
3. This paper consists of **THREE** sections **A,B** and **C**
4. Answer all the questions in sections **A** and **B** and **TWO** questions in section **C**
5. ALL answers should be written in the spaces provided on the question paper
6. Candidates should answer the questions in English.

**FOR EXAMINER’S USE ONLY**

|  |  |  |  |
| --- | --- | --- | --- |
| **SECTION** | **QUESTION** | **MAXIMUM SCORE** | **CANDIDATE’S SCORE** |
| **A** | **1 - 16** | **30** |  |
| **B** | **17 - 21** | **20** |  |
| **C** |  | **20** |  |
|  | **20** |  |

1. Give two ways in which agriculture is termed as an Art (1Mk)

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1. State main characteristic of plantation farming (1Mk)

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1. State two policies that regulate the amount of imported agricultural goods (2Mks)

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1. List four factors that determine the kind of soil formed in an area. (2Mks)

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1. State three factors which determine the depth of ploughing. (1½Mks)

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1. Outline four advantages of overhead irrigation over surface irrigation. (2Mks)

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1. List four pieces of information contained in health record. (2Mks)

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1. State two functions of sulphur in plant growth. (1Mk)

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1. State two characteristics of potassic fertilizers. (2Mks)

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1. a) State two disadvantage of state ownership of land tenure system. (2Mks)

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b) Write down three objectives of settlement and resettlement to Kenya after independence.

 (3Mks)

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1. State four modes of classification of crop pests. (2Mks)

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1. State two advantages of strip grazing. (2Mks)

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1. Define the following as used in soil conservation. (1Mk)
2. Solifluction erosion.

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1. List four factors influencing mass wasting. (2Mks)

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1. State two damages caused by nematodes on crops. (2Mks)

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1. List three crop diseases caused by bacteria. ( 1½ Mk)

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**SECTION B ( 20 MARKS)**

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

1. The experiment below was set to compare porosity and water holding capacity of three different types of soils samples.

Sample X

Sample Y

Sample Z

Drained water

1. Identify the soil in each of the following funnels labeled (3Mks)

X\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Y\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Z\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Which of the types of soil can be said to have the highest porosity rate? ( ½Mks)

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1. Give reasons for your answers in (ii) above ( ½ Mk)

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1. Which type of soil would be suitable for planting paddy rice? (1Mk)

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1. Explain your answer in (iv) above (1Mk)

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1. The diagram below represents two ways in which a crop was prunned. Study them and answer the questions that follow,



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1. Which diagram represented the correct way of pruning (1Mk)

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1. Give a reason for your answer in (i) above (1Mk)

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1. State two ways in which pruning assists in controlling diseases. (2Mks)

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1. Outline three reasons for pruning coffee. (3Mks)

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1. Below are diagrams of common weeds found in crop field, study them carefully and answer the questions that follows:-

F G H

1. Identify the weeds (3Mks)

F\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

G\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Why is it difficult to control weed labelled F? (1Mk)

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1. Classify weed G based on plant morphology and anatomy (1Mk)

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1. State importance of weeds labeled G and H (2Mks)

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**SECTION C (40MARKS)**

***Answer any two questions in this section spaces provided after.***

1. a) Describe the effects of diseases on tomatoes in the field (5Mks) b) Describe the procedure of harvesting coffee (4Mks)

c) Explain the precautions observed during harvesting of cotton (4Mks)

d) Explain seven factors that contribute to competitive ability of weeds (7Mks)

1. a) Describe the production of maize for grain production under the following sub-heading
2. Four varieties common in Kenya (2Mks)
3. Seedbed preparation (3Mks)
4. Field practices (5Mks)

b) State and explain five cultural methods used to control weeds (5Mks)

c) State five effects of late defoliation of forage crops (5Mks)

21. a) State and explain five ways in which human factors influence agriculture (5Mks)

 b) Describe the preparation of compost manure using indore method (pit method) (9Mks)

 c) State and explain how soil loses soil fertility. (6Mks)

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