

# AGRICULTURAL SCIENCE

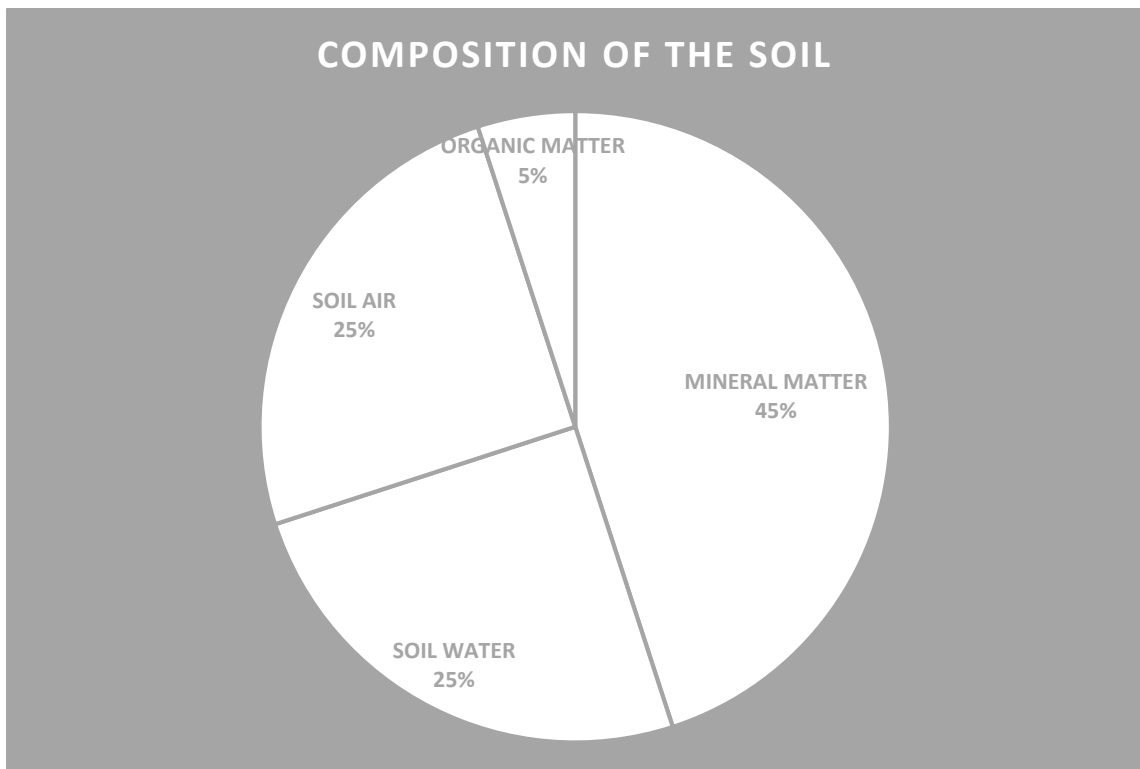
## SS1

### COMPOSITION OR COMPONENTS OF THE SOIL

The soil is made-up of five components which includes,

- I. Inorganic (Mineral) matter
- II. Organic matter
- III. Soil water
- IV. Living organisms
- V. Soil air

Mineral matter, organic matter, water and soil air collectively are referred to as physical components of the soil, while living organisms are referred to as Biological components of the soil.



## **1. MINERAL MATTER**

This represents small fragments of rock. It forms the bulk of about 45% of total volume of the soil. It consists of gravel, stones and clay

### **IMPORTANCE OF MINERAL MATTER IN AGRICULTURE**

- I. It forms the solid part of the soil and provides support for plants.
- II. It represents the home for soil living organisms
- III. It prevents leaching in soil erosion and evaporation of soil water helps in anchorage of plants.
- IV. It affects porosity of the soil.
- V. It holds water and air for plants and animal activities.

## **2. ORGANIC MATTER**

The Organic matter (OM) represents the remains of the decomposition of plants and animals. It is 5% of the total volume of the soil. Plant parts and animal dung decay to form the organic matter.

### **IMPORTANCE OF ORGANIC MATTER**

- I. It prevents soil erosion and evaporation.
- II. The texture and structure of the soil can be improved.
- III. Water holding ability of the soil can be improved.
- IV. It is very rich in plant nutrients.
- V. It improves soil aeration.
- VI. It is responsible for the loose, friable condition of loamy soil.
- VII. It moderates the soil temperature which stimulates good growth and development of the roots.

## **ASSIGNMENT**

1. Explain Soil Air.
2. What are the importance of soil air in agriculture.