produced in this region are directed downwards towards the root cap and upwards towards the region of cell elongation.

**REGION OF CELL ELONGATION** 

The cells in this region undergo rapid elongation and enlargement and are responsible for the growth in length of the root

**REGIONS OF CELL MATURATION** 

Cells in this region undergo maturation and differentiation into various kinds of tissues. Roots hairs are produced in this region for absorption of water and mineral salts from the soil. FUNCTIONS OF THE ROOT

Absorption of water and mineral salts from the soil

 $\Box$  Anchorage of the plant to the soil

 $\Box$  Conduction of the absorbed water upwards to the stem

 $\Box$  Storage of food in some plant species

## TYPES OF ROOT

There are two main forms of root, namely the Tap root system and Fibrous root system. In the tap root system, there is a main or primary root or tap root from which smaller branch roots or lateral roots or secondary roots develop. The secondary roots can also produce small branch roots called rootlets or tertiary roots. This type of root system is found in the destyledonous plants e.g. Amaranthus sp, Chocorus sp.

## **THE STEM**

The stem is the ascending portion of the axis of the plant, developing directly from the plumule and bears the leaves, branches and 10 years. On the stem are nodes and internodes. Leaves and branches develop from the odds. Stems are usually televanated by either vegetative of floral bud. When the stem or of a ch ends in a get t the Gud, it continues to grow upwards or sideways. Growth of stem ceases when it is erminated by a floral bud. Buds occurring in the axil of leaves are termed axillary buds.

Functions of stem

The stem bear the leaves and flowers and spread them out on all sides for proper

functioning i.e. light reception and pollinator attraction.

□ Stem conducts water and mineral salts from the root to the leaves

□ Conduction of prepared food from the leaves to other parts of the plant

 $\Box$  Storage of water and food in some species

□ Young green stems perform photosynthesis to compliment the leaves

□ Stem is used to for vegetative propagation in some plants species

□ Some stems especially the underground stems are useful for perennation

Types of stem

Stem could be either aerial or underground. Aerial stems are those existing above the ground, while underground stems remain under the ground, producing aerial shoots when the conditions are favorable. Underground stems are useful for food storage and perennation.