



11080CH05

## CHAPTER 5

# MORPHOLOGY OF FLOWERING PLANTS

- 5.1 The Root
- 5.2 The Stem
- 5.3 The Leaf
- 5.4 The Inflorescence
- 5.5 The Flower
- 5.6 The Fruit
- 5.7 The Seed
- 5.8 *Semi-technical  
Description of a  
Typical  
Flowering Plant*
- 5.9 *Description of  
Some Important  
Families*

The wide range in the structure of higher plants will never fail to fascinate us. Even though the angiosperms show such a large diversity in external structure or **morphology**, they are all characterised by presence of roots, stems, leaves, flowers and fruits.

In chapters 2 and 3, we talked about classification of plants based on morphological and other characteristics. For any successful attempt at classification and at understanding any higher plant (or for that matter any living organism) we need to know standard technical terms and standard definitions. We also need to know about the possible variations in different parts, found as adaptations of the plants to their environment, e.g., adaptations to various habitats, for protection, climbing, storage, etc.

If you pull out any weed you will see that all of them have roots, stems and leaves. They may be bearing flowers and fruits. The underground part of the flowering plant is the root system while the portion above the ground forms the shoot system (Figure 5.1).

### 5.1 THE ROOT

In majority of the dicotyledonous plants, the direct elongation of the radicle leads to the formation of **primary root** which grows inside the soil. It bears lateral roots of several orders that are referred to as **secondary**, **tertiary**, etc. **roots**. The primary roots and its branches constitute the