

Chapter 07

DIVERSITY IN LIVING ORGANISMS

SUMMARY:

- ◆ Classification helps us in exploring the diversity of life forms.
- ◆ The major characteristics considered for classifying all organisms into five major kingdoms are:
 - (a) whether they are made of prokaryotic or eukaryotic cells.
 - (b) whether the cells are living singly or organised into multi-cellular and thus complex organisms.
 - (c) whether the cells have a cell-wall and whether they prepare their own food.
- ◆ All living organisms are divided on the above bases into five kingdoms, namely Monera, Protista, Fungi, Plantae and Animalia.
- ◆ The classification of life forms is related to their evolution.
- ◆ Plantae and Animalia are further divided into subdivisions on the basis of increasing complexity of body organisation.
- ◆ Plants are divided into five groups: Thallophytes, Bryophytes, Pteridophytes, Gymnosperms and Angiosperms.
- ◆ Animals are divided into ten groups: Porifera, Coelenterata, Platyhelminthes, Nematoda, Annelida, Arthropoda, Mollusca, Echinodermata, Protochordata and Vertebrata.
- ◆ The binomial nomenclature makes for a uniform way of identification of the vast diversity of life around us.
- ◆ The binomial nomenclature is made up of two words – a generic name and a specific name.