

# Biology

## Unit I Diversity in Living World

- **Biology**- its meaning of relevance to mankind
- **Taxonomy** – Concept of species and taxonomical hierarchy
- **Systematic** – Introduction to plant Systematic, its aims , objectives and importance , classification , brief history , introduction , various systems of classification of living organism (Two kingdom system , five kingdom system) Brief introduction to nomenclature and binomial system of nomenclature
- **Salient features and classification of kingdom Monera** ( including Archaeobacteria and cyno bacteria ) General structure ,occurrence ,reproduction and economics importance.
- **Kingdom protista**- General structure ,occurrence , reproduction and economic importance
- **Kingdom Fungi**- General structure, occurrence, reproduction and economic importance, diseases of economically important crop plant , rusts , smuts, downy and powdery mildew damping off.
- **Kingdom Plantae**- salient features and classification of plants into major groups.  
Algae- General account, structure, life cycle of biological importance of green algae, brown algae and red algae .  
Bryophytes- General account , structure, life cycle and economic importance of liverworts and mosses.
- **Pteridophytes**- General account , structure, classification, life cycle and economic importance.
- **Gymnosperms**- General account , structure, classification life cycle and economic importance.
- **Angiosperms**- classification up to class ,General account , structure, life cycle and economic importance.  
Viruses- General structure, types and reproduction of viruses  
Lichens- General account ,structure and life history.
- **Kingdom Animalia** – salient features ( in the reference to habitat , habits morphology and economic importance )and classification of non chordates up to phylum level.  
Salient features ( in the reference to habitat , habits, morphology and economic importance )  
classification of chordates up to class level.

## Unit II Structural organization in plants

- **Tissue** ,Tissue system in plants
- **Morphology**, function and modification of root , stem and leaf
- **Anatomy** of root , stem and leaf , primary and secondary growth in dicot stem
- **Inflorescence**, Types of Inflorescence, flower ( including postion and arrangement of different whorls ) placentation , fruit, types of fruit, seed.
- **Diagnostics features**, economic importance and distribution pattern of Angiospermic families
  - A) Family Brassicaceae
  - B) Family Fabaceae
  - C) Family solnaceae
  - D) Family Lillaceae
  - E) Family Poaceae