

PAPER-II LIMNOLOGY

Unit-I

Physical Limnology

1. Basic Concepts and Scope of Limnology.
2. Fresh water environment - Types and limiting factors.
3. Lakes - Origin, Classification, Distribution and Ecology.
4. Streams - Classification, Form, Zonations and Ecology.
5. Spring.
6. Ponds.

Unit-II

Chemical Limnology

1. Kinetics and distribution of Oxygen in fresh water.
2. Salinity in Inland water.
3. Silicon, Iron and Manganese Cycles in fresh water systems.
4. Inorganic Carbon in fresh water ecosystems.
5. Nitrogen, Phosphorous and Sulphur Cycle in fresh water systems.
6. Biogeochemical Cycles and Productivity of fresh water ecosystem.

Unit-III

Biological Limnology

1. Fresh water Biota-Flora and Fauna.
2. Lentic Communities.
3. Lotic Communities.
4. Phytoplankton.
5. Zooplankton.

Unit-IV

Water Management

1. Water quality - Physical, chemical and biological Parameters.
2. Waste water treatment.
3. Inland water conservation.
4. Causes of pollution of aquatic resources and their management.
5. Wetlands - Problems and their management.
6. Water born human diseases.