

DISCIPLINE SPECIFIC CORE COURSE

**BZO: C802 Aquatic Biology
(Credits: Theory-4, Practical-2)**

SEMESTER – VIII

Lectures: 60

UNIT-1

Aquatic Biomes: Brief introduction of the aquatic biomes: Freshwater ecosystem (lakes, wetlands, streams and rivers), estuaries, intertidal zones, oceanic pelagic zone, marine benthic zone and coral reefs.

UNIT-2

Freshwater Biology Lakes: Origin and classification, Lake as an Ecosystem, Lake morphometry, River & Streams: Types, Different type of river basin Different stages of stream development.

UNIT-3

Physico-chemical Characteristics: Light, Temperature, Thermal stratification, pH, Dissolved Solids, Carbonate, Bicarbonates, Phosphates and Nitrates, Turbidity; dissolved gases (Oxygen, Carbon dioxide). Nutrient Cycles in Lakes-Nitrogen, Sulphur and Phosphorous.

UNIT-4

Marine Biology: Types of Oceans, Salinity and density of Sea water, Continental shelf, Adaptations of deep-sea organisms, Coral reefs, Sea weeds.

UNIT-5

Management of Aquatic Resources: Causes of pollution- Agricultural, Industrial, Sewage, Thermal and Oil spills, Eutrophication, Management and conservation (legislations), Water quality assessment- DO, BOD and COD, Sewage treatments. Aquatic biodiversity- Plankton, Benthos & Hill stream fishes.
