

## **EBO-406 MARINE BOTANY**

### **UNIT-I**

**Marine environment:** History of oceanography, oceans of the world, continental drift, sea as a biological environment, main divisions and zones of marine environment.

**Physical factors:** Temperature, light, pressure, sound velocity, sedimentation, dynamic factors, waves, tides, currents, their effects on marine flora, fauna and microorganisms.

**Chemistry of sea water:** Chemical composition, chlorinity, salinity, pH, dissolved gases, minerals, nutrients and organic matter.

**Pollution:** Major pollutants (sewage, agricultural discharges, industrial wastes, dredging, oils, radioactive elements) and their effects on marine biota, bioremediation.

### **UNIT-II**

**Marine Phytoplankton:** Types, distribution, biomass, productivity and factors affecting productivity.

**Marine algae:** Salient features-(morphology, structure, reproduction, classification) of marine **Chlorophyta**, **Phaeophyta** and **Rhodophyta**, algae of Saurashtra.

**Marine Angiosperms:** Sea grasses, halophytes, mangroves, coastal flora of India.

**Physiology of Marine Angiosperms:** Seed germination, salt uptake and translocation, nitrogen metabolism and photosynthesis.

**Economic utility:** Uses of marine algae, algal products and uses of mangroves.