

## **EBO-3005: Water Pollution Management**

**(Credits: 2)**

### **Unit-I**

1. Freshwater: Classification of water bodies; physico-chemical and biological properties of freshwater; water quality at euphotic and profundal zones; drinking, bathing and irrigational water quality standards
2. Water pollution sources: Major sources of water pollution; Physico-chemical and biological properties of sewage; quality of industrial effluents produced from textile, dairy, leather, thermal power and chemical industries
3. Effect on water quality: Changes in water quality due to discharge of city sewage; industrial effluents; effects on phytoplankton productivity; bio-indicators of water pollution
4. Domestic wastewater treatment: Various stages of treatment of sewage with special reference to advanced wastewater treatments; biological treatment of wastewater.

### **Unit-II**

1. Industrial wastewater treatment: Treatment of industrial effluents released from textile, dairy, leather, thermal power and chemical industries
2. Disinfection of treated water: Ozonization of secondary treated wastewater; chemical and other methods for disinfection
3. Water management strategies: Rain water harvesting, use of rain water, recharging of ground water; use of domestic waste water; recycling of waste water; recycling of industrial effluents after treatment
4. Water pollution monitoring and management bodies: Important organizations involved in water pollution monitoring in India and role of NGOs in water pollution management.