

## **BES – C- 401 Solid Waste Management**

### **UNIT 1:**

Sources, generation, classification & composition of solid wastes. Solid waste management methods - Sanitary land filling, Recycling, Composting, Vermi composting, Incineration, energy recovery from organic waste.

### **Unit - 2**

Solid Waste Management Plan, Waste minimization technologies, Hazardous Waste Management, Sources & Classification, physicochemical properties, Hazardous Waste Control & Treatment.

### **UNIT 3**

4R- reduce, reuse, recycle and recover; biological processing - composting, anaerobic digestion, aerobic treatment; reductive dehalogenation; mechanical biological treatment; green techniques for waste treatment.

### **UNIT 4**

Concept of Integrated waste management; waste management hierarchy; methods and importance of Integrated waste management.

Concept of waste-to-energy (WTE), energy recovery from waste; different WTE processes: combustion, pyrolysis, landfill gas (LFG) recovery; anaerobic digestion; gasification

### **UNIT 5**

Municipal Solid Wastes (Management and Handling) Rules 2000; Hazardous Wastes Management and Handling Rules 1989; Bio-Medical Waste (Management and Handling) Rules 1998; Eco-friendly or green products.