

**CORE COURSE - XII (CC):  
ENVIRONMENTAL POLLUTION AND DEGRADATION**

**UNIT 1**

Air Pollution: Structure of the atmosphere, Types of air pollutants, primary and secondary particulate and gaseous contaminants, their sources and impact on vegetation, animals and human beings. Photochemical smog, Bhopal gas disaster. Acid rain formation its effects on environment. Green house effect-Global Warming - stratospheric ozone depletion. Community air pollution survey. Meteorological factors in air pollution survey. Meteorological factors in air pollution, wind, Atmospheric stability, plume behaviour. Air pollution monitoring, principles of sampling and analysis of particulate and gaseous contaminants.

**UNIT 2**

Water Pollution: Sources and types of water pollution. Classification of water pollutants - Oxygen demanding wastes, pathogens, plant nutrients, synthetic organic compounds, inorganic chemicals and mineral substances. Thermal pollution - sources and effects, an episode of thermal pollution. Sewage - nature of sewage.

**UNIT 3**

Land Pollution: Sources, types and nature of solid wastes, effects of solid wastes, solid industrial wastes, defecation and its effects, fertilizer pollution, types of fertilizers field run off-effects. Pesticides pollution, history, types - effects of biocides, Other forms of environmental degradation, monoculture and its impacts, Dam water development projects and its impacts. Soil erosion - types and factors, Desertification.

**UNIT 4**

Radioactive Pollution: Radiation - types and units-sources natural and man-made. Effects of radioactive pollution atomic explosions an radioactive pollution and an episode. Noise pollution: Sources, types, characteristics of sound, noise, intensity annoyance, impacts of noise pollution. Noise levels in different cities of the World and in India.

**UNIT 5**

Marine pollution: Sources of marine pollution and control. Criteria employed for disposal of pollutants in marine system. Impact of marine pollution. Oil pollution - sources and effects, an episode of oil pollution. - coastal management

**REFERENCES**

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