

ENVIRONMENTAL POLLUTION AND MANAGEMENT (ECE 479) OE-I

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Unit I

Impact of man on environment, consequence of population growth, energy problem, pollution of air, water and land, Global environmental issues.

Unit II

Water pollution: Sources and classification of water pollutants, wastewater treatment, control strategies, Eutrophication of lakes, self purification capacity of streams. Waste load allocation.

Thermal pollution: Sources, effects and control measures.

Unit III

Air pollution: Sources and effects, meteorological aspects, control methods and equipments,

Land pollution: Types of land pollution, solid waste management-generation, storage, collection, transport, processing and disposal.

Noise pollution: Sources, effects, preventive and control measures.

Unit IV

EIA: Planning and management of environmental impact studies; Impact evaluation methodologies: baseline studies, screening, scoping, checklist, overlays, Environmental impact assessment of water resources and environmental projects, Case study of power plant.

EA: Meaning, audit items, audit procedure, safety audit.

Unit V

Contemporary issues: Emission trading, discharge permits, international resource sharing issues, climate change, international environmental treaties and protocol.

Environmental legislation: Introduction to various legislations related to water, air, biodiversity, ozone depletion etc at National and International level; Institutions for governance.

References :

1. Principles of environmental studies (Ecology, economics, management and law) by C. Manoharachary and P. Jayarama Reddy, B.S. Publications.
2. Text of Environmental Engineering by P.V. Rao, Prentice Hall pvt ltd., Delhi
3. Environmental impact assessment methodologies by Y. Ananayulu and C.A. Sastry, B.S. Publications, Hyderabad