

AMSE20 ENVIRONMENTAL ENGINEERING

UNIT-1 MAN, ENVIRONMENT, ECOSYSTEMS & THEIR INTER RELATIONSHIP

- 1.1 Introduction,
- 1.2 Effects of Pollutants on Living System,
- 1.3 Some Pollution Syndromes

UNIT-2 TYPES OF ENVIRONMENT POLLUTANTS AND THEIR SOURCE OF EFFECTS

- 2.1 Natural Pollution, Agricultural Pollution,
- 2.2 Mining Pollution, Municipal Pollution, Industrial Pollution,
- 2.3 Classification Of Pollution And Pollutants,
- 2.4 Devising Technological Abatement Processes,
- 2.5 Effects of Pollutants on Living System,
- 2.6 Fire Management, Rangelands, Parks And Nature Preserves,
- 2.7 Case Study Reintroducing Wolves To Yellowstone, World Parks And Preserves

UNIT-3 INDOOR POLLUTION, AIR POLLUTION, SOURCE & THEIR EFFECTS AND CONTROL TECHNOLOGIES

- 3.1 Introduction, Air Pollution Episodes,
- 3.2 Air Pollution And Its Abatement, Effects Of Air Pollution,
- 3.3 National Air Pollution Control Administration,
- 3.4 Air Pollution Control, Clean Air Legislation,
- 3.5 Sources Of Air Pollution, Control Of Air Pollution,
- 3.6 Types Of Gas Changing Device

UNIT-4 NOISE POLLUTION & ITS ABATEMENT

- 4.1 Introduction,
- 4.2 Noise Pollution Sources,
- 4.3 Effect of Noise on Physical Health,
- 4.4 Noise Control

UNIT-5 INDUSTRIAL WASTE TREATMENT AND DISPOSAL

- 5.1 Pollution Characteristics Of Wastes, Physical Characteristics,
- 5.2 Chemical Characteristics, Biological Characteristics,
- 5.3 Treatment of Industrial Effluents, Physical Treatment, Chemical Treatment,
- 5.4 Biological Treatment, Disposal of Industrial Effluents,
- 5.5 Treatment Of Industrial Effluents, Physical Treatment,
- 5.6 Air Pollution Problems In Industry, Nuclear Wastes,
- 5.7 Health And Environmental Effects,
- 5.8 Refinery And Fuel Fabrication Wastes, Biomedical Wastes, Control Of Biomedical Wastes,
- 5.9 Identifying A Hazardous Waste, Role Of The Wastes Exchange,
- 5.10 Treatment And Disposal of Chemical Wastes

UNIT-6 SOLID WASTE DISPOSAL

- 5.1 Introduction,
- 5.2 Characteristics of Solid Wastes,
- 5.3 Characteristics, Considerations In Solid Waste Management,
- 5.4 Collection Systems

UNIT-7 ENVIRONMENTAL IMPACT ASSESSMENT AND AUDITING

- 7.1 Historical Perspective,
- 7.2 Elements Of The Environmental Impact,
- 7.3 Project Design And Construction, Project Operations,
- 7.4 Site Characteristics, Institutional And Sociopolitical Framework, Possible Impacts,
- 7.5 Socioeconomic Analysis, Alternatives Availability Of Information,
- 7.6 Availability Of Resources,
- 7.7 Environmental Pollution And Its Control In The Pulp And Paper Industry, NEPA And EIS,
- 7.8 Introduction Sustainable Development,
- 7.9 Environment Impact Assessment- Project Operations,
- 7.10 Site Characteristics, Institutional And Sociopolitical Framework,
- 7.11 Socioeconomic Analysis,
- 7.12 Alternatives, Availability Of Information, Availability Of Resources

UNIT-8 INTRODUCTION TO ENVIRONMENTAL LAWS AND POLICIES

- 8.1 Environmental Policy,
- 8.2 NEPA and EIS,
- 8.3 Environmental Law,
- 8.4 International Treaties and Conventions

UNIT-9 GLOBAL ISSUES

- 9.1 Best Practicable Means (BPM), Devising Technological Abatement Processes,
- 9.2 Environmental Standards, State Of World Environment,
- 9.3 International Treaties And Conventions,
- 9.4 Dispute Resolution And Community-Based Planning,
- 9.5 The Dilemma Of Industrialization And Urbanization

References Books:

1. Environmental Engineering by N N Basak
2. Environmental Engineering by Anil Kumar De and Arnab Kumar De