

Bhoj Reddy Engineering College for Women: Hyderabad

Department of Engineering Chemistry

Lesson plan of faculty member for the academic year 2017–18

Class: II B Tech

Branch - Section: EEE

Semester: I

Subject: Environmental Science and Technology

Lectures per week: 3

| Lecture Number | Topics to be covered | Date (s) |
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| UNIT-I Ecosystems | | |
| 1 | Definition, classification, function | 12 July 2017 |
| 2 | Food chain ,Food web | 13 July 2017 |
| 3 | Ecological pyramids, Flow of Energy | 15 July 2017 |
| 4 | Biogeochemical cycles , hydrological and gaseous cycles | 19 July 2017 |
| 5 | Biogeochemical cycles - sedimentary cycles | 22 July 2017 |
| 6 | Bio magnification, Bio accumulation, carrying capacity | 26 July 2017 |
| 7 | Ecosystem values ,Services | 27 July 2017 |
| UNIT-II Natural resources | | |
| 8 | Classification, Water resources- over utilization of surface and ground water | 29 July 2017 |
| 9 | Floods | 02 August 2017 |
| 10 | Droughts | 03 August 2017 |
| 11 | Dams – benefits & problems | 05 August 2017 |
| 12 | Mineral resources ,use and exploitation, | 09 August 2017 |
| 13 | Environmental effects of extracting and using mineral resources | 10 August 2017 |
| 14 | Energy resources, growing energy needs | 12 August 2017 |
| 15 | Alternate energy source – case studies | 16 August 2017 |
| 16 | Renewable and non renewable energy sources | 17 August 2017 |
| 17 | Land resources & Forest resources | 19 August 2017 |
| UNIT- III Biodiversity and Biotic resources | | |
| 18 | Introduction, Definition & classification of Biodiversity | 23 August 2017 |
| 19 | Values of Biodiversity, India as a mega diversity nation | 24 August 2017 |
| 20 | Threats to biodiversity- habitat loss, poaching of wild life, man wild life conflicts | 26 August 2017 |
| 21 | Conservation of bio-diversity- insitu and ex-situ | 30 August 2017 |
| 22 | National bio diversity act Hotspots of bio-diversity2017 | 31 August |
| UNIT- IV Environmental pollution & control technologies | | |
| 23 | Classification of pollution | 09 September 2017 |
| 24 | Air pollution – primary and secondary pollutants, automobile and Industrial pollution | 13 September 2017 |
| 25 | Ambient air quality standards , water pollution : | 14 September 2017 |
| 26 | sources and types of pollution, drinking water standards | 16 September 2017 |
| 27 | Soil pollution: sources and types, impacts of modern agricultural, Degradation of soil | 21 September 2017 |
| 28 | Noise pollution : sources and health Hazards, standards | 23 September 2017 |
| 29 | Pollution control technologies Solid waste: municipal solid waste management, composition, Characteristics of e-Waste and its management | 04 October 2017 |
| 30 | Pollution control technologies wastewater Treatments Primary, Secondary and Tertiary | 05 October 2017 |
| 31 | Overview of air pollution control technologies, | 07 October 2017 |
| 32 | Concepts of bioremediation, Global environmental problems and global efforts | 11 October 2017 |
| 33 | Climate change and impacts on human environment , Ozone depletion, Ozone depleting substances (ODS) | 12 October 2017 |

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| 34 | Deforestation and desertification | 14October 2017 |
| 35 | International convention/protocols ; Kyotoprotocol, Earth summit, Montreal protocol | 19 October 2017 |
| UNIT- V Environmental policy, legislation and EIA | | |
| 36 | Environmental protection act, Protection act, legal aspects Air act-1981, water act, forest act, Wild life Act, Municipal solid waste management and handling rules | 21October 2017 |
| 37 | Hazardous waste management and handling rules, biomedical waste management and handling rules | 25 October 2017 |
| 38 | Impacts of air water biological and Socio economical aspects, Strategies for risk assessment, concepts of EMP | 26 October 2017 |
| 39 | Concept of Sustainable Development, Population and its explosion , Crazy consumerism , Environmental Education Urban sprawl | 28 October 2017 |
| 40 | Human health, environmental Ethics, Concept of Green Building | 01 November2017 |
| 41 | Ecological foot print Life Cycle assessments, Low carbon life style | 02 November2017 |

Text books:

1. Environmental Studies by Erach Bharucha & R Rajagopalan.

Name and signature of the faculty:K Sandhya

Name and signature of Head - Chemistry faculty:K Sandhya