| Branch: ELECTRICAL | Semester: 3rd | Name of the Teaching Faculty: PRADEEP KUMAR MOHANTY |
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| Subject: ENVIRONMENTAL STUDIES (Th.5) | No. of days/per week class allotted:04 | Semester From date : 01.7.2024 To Date:16.12.2024 |
| **Week** | **Class Day** | **Theory Topics** |
| 1ST | 1ST | Multidisciplinary nature of environmental studies- Introduction, |
| | 2ND | |
| | 3RD | Definition , Scope and importance |
| | 4TH | Need for public awareness |
| 2ND | 1ST | Natural Resources: Renewable and non renewable resources Natural resources and associated problems. |
| | 2ND | Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction, mining, dams and their effects on forests and tribal people |
| | 3RD | Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam's benefits and problems. |
| | 4TH | . Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources. |
| 3RD | 1ST | Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizers- pesticides problems, water logging, salinity |
| | 2ND | Energy Resources: Growing energy need, renewable and non-renewable energy sources, use of alternate energy sources, case studies. |
| | 3RD | Land Resources: Land as a resource, land degradation, man induces landslides, soil erosion, and desertification. |
| | 4TH | Role of individual in conservation of natural resources. |
| 4TH | 1ST | Equitable use of resources for sustainable life styles |
| | 2ND | Concept of an eco system. |
| | 3RD | Structure and function of an eco system. |
| | 4TH | Producers, consumers, decomposers. |
| 5TH | 1ST | Energy flow in the eco systems |
| | 2ND | Ecological succession |
| | 3RD | Food chains, food webs and ecological pyramids |
| | 4TH | Introduction, types, characteristic features, structure and function of the following eco system |
| 6TH | 1ST | Forest ecosystem |
| | 2ND | Aquatic eco systems (ponds, streams, lakes, rivers, oceans, estuaries). |
| | 3RD | Introduction-Definition: genetics, species and ecosystem diversity |
| | 4TH | Biogeographically classification of India. |
| 7TH | 1ST | Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and option values. |
| | 2ND | Biodiversity at global, national and local level |
| | 3RD | Threats to biodiversity |
| | 4TH | Habitats loss |

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| 8TH | 1ST | poaching of wild life |
| | 2ND | man wildlife conflicts. |
| | 3RD | Definition Causes, effects and control measures of Environmental Pollution |
| | 4TH | Air pollution. |
| 9TH | 1ST | Water pollution |
| | 2ND | Soil pollution |
| | 3RD | Marine pollution |
| | 4TH | Noise pollution |
| 10TH | 1ST | Thermal pollution |
| | 2ND | Nuclear hazards |
| | 3RD | Solid waste Management |
| | 4TH | Causes, effects and control measures of urban and industrial wastes. |
| 11TH | 1ST | Role of an individual in prevention of pollution |
| | 2ND | Disaster management: Floods, earth quake, |
| | 3RD | cyclone and landslides |
| | 4TH | Social issues and the Environment: Form unsustainable to sustainable development. |
| 12TH | 1ST | Urban problems related to energy |
| | 2ND | Water conservation, rain water harvesting, water shed management. |
| | 3RD | Resettlement and rehabilitation of people; its problems and concern |
| | 4TH | Environmental ethics: issue and possible solutions |
| 13TH | 1ST | Climate change, global warming, acid rain |
| | 2ND | ozone layer depletion, nuclear accidents and holocaust, case studies. |
| | 3RD | Air (prevention and control of pollution) Act. |
| | 4TH | Water (prevention and control of pollution) Act |
| 14TH | 1ST | Public awareness. |
| | 2ND | Population growth and variation among nations. |
| | 3RD | Population explosion- family welfare program |
| | 4TH | Environment and human health |
| 15TH | 1ST | Human rights |
| | 2ND | Value education |
| | 3RD | Role of information technology in environment |
| | 4TH | Role of information technology in human health |

P. Mohanty 1/7/24
Teaching Faculty

H.O.D 01/07/2024