

LESSON PLAN-3<sup>RD</sup> SEMESTER (2020)

Subject- **ENVIRONMENTAL STUDIES**

Name of the Faculty- SOURAV ADHYA

| MONT<br>H | MODULE/<br>UNIT | COURSE TO BE COVERED   | CLASSES REQUIRED | REMARKS<br>(IF ANY) |
|-----------|-----------------|--|------------------|---------------------|
| AUG       | <b>Unit-1</b>   | <b>The Multidisciplinary nature of environmental studies</b>   | <b>04</b>        |                     |
|           |                 | Definition, scope and importance, Need for public awareness.   | 4                |                     |
|           | <b>Unit-2</b>   | <b>Natural Resources</b>   | <b>12</b>        |                     |
|           | <b>(a)</b>      | Natural resources and associated problems.   |                  |                     |
|           |                 | Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining, dams and their effects on forests and tribal people.                       | 3                |                     |
|           |                 | Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam's benefits and problems.                                     | 3                |                     |
|           |                 | Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources.  | 1                |                     |
|           |                 | Food Resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizers-pesticides problems, water logging, salinity, . | 1                |                     |
|           |                 | Energy Resources: Growing energy need, renewable and non-renewable energy sources, use of alternate energy sources, case studies.  | 1                |                     |
|           |                 | Land Resources: Land as a resource ,land degradation ,man induces landslides, soil erosion, and desertification.   | 1                |                     |
|           | <b>(c)</b>      | Equitable use of resources for sustainable lifestyles  | 1                |                     |

|      |        |   |           |  |
|------|--------|---|-----------|--|
|      | (d)    | Equitable use of resources for sustainable lifestyles.  | 1         |  |
| SEPT | Unit-3 | <b>Systems</b>  | <b>12</b> |  |
|      |        | Concept of an ecosystem   |           |  |
|      |        | Structure and function of an ecosystem.   | 2         |  |
|      |        | Producers, consumers, decomposers.  | 1         |  |
|      |        | Energy flow in the ecosystems.  | 2         |  |
|      |        | Ecological succession.  | 1         |  |
|      |        | Food chains, food web sand ecological pyramids.   | 1         |  |
|      |        | Introduction, types, characteristic features, structure and function of the following ecosystem.    | 2         |  |
|      |        | Forest ecosystem  | 1         |  |
|      |        | Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).                              | 2         |  |
|      | Unit-4 | <b>Biodiversity and it's Conservation</b>   | <b>08</b> |  |
|      |        | Introduction-Definition: genetics, species and ecosystem diversity.                                 | 2         |  |
|      |        | Biogeographically classification of India.  | 1         |  |
|      |        | Value of biodiversity:consumptive use, productive use, social ethical, aesthetic and opt in values. | 2         |  |
|      |        | Biodiversity at global, national and local level.   | 1         |  |
|      |        | Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.              | 2         |  |
| OCT  | Unit-5 | <b>Environmental Pollution.</b>   | <b>18</b> |  |
|      |        | Definition Causes, effects and control measures of:   | 2         |  |
|      | (a)    | Air pollution.  | 2         |  |
|      | (b)    | Water pollution.  | 2         |  |
|      | (c)    | Soil pollution  | 2         |  |
|      | (d)    | Marine pollution  | 1         |  |
|      | (e)    | Noise pollution.  | 1         |  |
|      | (f)    | Thermal pollution   | 1         |  |
|      | (h)    | Nuclear hazards   | 2         |  |
|      |        | Solid waste Management : Causes, effects and control measures of urban and industrial wastes.       | 2         |  |
|      |        | Role of an individual in prevention of pollution.   | 1         |  |
|      |        | Disaster management: Floods, earth quake, cyclone and landslides.                                   | 2         |  |
|      | Unit-6 | <b>Social issues and the Environment</b>  | <b>12</b> |  |
|      |        | From unsustainable to sustainable development.  | 2         |  |

|     |               |   |           |  |
|-----|---------------|---|-----------|--|
|     |               | Urban problems related to energy.   |           |  |
|     |               | Water conservation, rain water harvesting, water shed management.   | 2         |  |
|     |               | Resettlement and rehabilitation of people; its problems and concern.  | 2         |  |
|     |               | Environmental ethics: issue and possible solutions.   | 2         |  |
|     |               | Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies | 2         |  |
|     |               | Air (prevention and control of pollution) Act. Water  | 1         |  |
|     |               | Water (prevention and control of pollution) Act   | 1         |  |
|     |               | Public awareness.   |           |  |
| NOV | <b>Unit-7</b> | <b>Human population and the environment</b>   | <b>09</b> |  |
|     |               | Population growth and variation among nations.  | 2         |  |
|     |               | Population explosion-family welfare program.  | 1         |  |
|     |               | Population explosion-family welfare program.  | 1         |  |
|     |               | Environment and human health.   | 2         |  |
|     |               | Human rights.   | 1         |  |
|     |               | Value education   | 1         |  |
|     |               | Role of information technology in environment and human health.   | 1         |  |