**COURSE CODE : MC1C01**

**COURSE TITLE** : **ENVIRONMENTAL STUDIES**

**UNIVERSITY : DIBRUGARH UNIVERSITY**

**SEMESTER : SECOND SEMESTER**

**CREDIT : 00**

**L:T:P : 0:0:0**

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| Module | Details of module | No. of Lectures |
| 1 | The Multidisciplinary nature of environmental studies Definition, scope and importance, Need for public awareness. | 4 |
| 2 | Natural Resources: Renewable and non-renewable resources: Natural resources and associated problems. a) Forest Resources: Use and over-exploitation, deforestation. Timber extraction, mining, dams and their effects on forests and tribal people. b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems. c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies. d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, and salinity. e) Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources. f) Lance resources: Land as a resources, land degradation, man-induced landslides, soil erosion and desertification. Role of an individual in conservation of natural resources. Equitable use of resources for sustainable lifestyles. | 10 |
| 3 | Ecosystems- Concept of an ecosystem. Structure and function of an ecosystem. Producers, consumers and decomposers. Energy flow in the ecosystem. Ecological succession. Food chains, food webs and ecological pyramids. Introduction, types, characteristics features, structure and function of the following ecosystem: a. Forest ecosystem, b. Grassland ecosystem c. Desert ecosystem d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries) | 10 |
| 4 | Biodiversity and its conservation- Introduction – Definition: genetic, species and ecosystem diversity. Biogeographically classification of India, Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values, Hot-spots of biodiversity – India. Threats to biodiversity: habits loss, poaching of wldlife, man-wildlife conflicts. Endangered and endemic species. Conservation of biodiversity: in-situ Ex-situ conservation of biodiversity. | 10 |
| 5 | Environmental Pollution- Definition, Causes, effects and control measures of : Air pollution, Water pollution, Soil pollution, Noise pollution, Thermal pollution, Nuclear hazards. Solid waste Management: Causes, effects and control measures of urban and industrial wastes – biodegradable and non biodegradable wastes. Role of an individual in prevention of pollution. Disaster Management: Floods, earthquake, cyclone and landslides. | 10 |
| 6 | Social Issues and the Environment- From Unsustainable to Sustainable development. Water conservation, rain water harvesting, watershed management. Resettlement and rehabilitation of people, its problems and concerns. Environmental ethics. Climate change, global warming, acid rain, ozone layer depletion, unclear accidents and holocaust. Wasteland reclamation. Consumerism and waste products. Environmental Legislation. Public awareness. | 10 |
| 7 | Human Population and the Environment- Population growth, variation among nations. Population explosion – Family Welfare Programme. Environment and human health and hygiene (including Sanitation and HIV/AIDS) etc. Role of Information Technology in Environment and Human Health. | 10 |

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13. Heywood, V.H. & Watson, R.T. 1995. Global Biodiversity Assessment. Cambridge Univ.

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Standards, Vol I and II, Enviro Media (R).

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(M) Magazine (R) Reference (TB) Textbook