# BINOD BIHARI MAHTO KOYALANCHAL UNIVERSITY, DHANBAD FOUR YEAR UNDERGRADUATE PROGRAMME

# SEMESTER III COMMON COURSE (CC-7) - ENVIRONMENTAL STUDIES

F.M: 100

Total Credits: 3

- There will be two groups Group A and Group B.
- Group A will be compulsory questions. Q.1 will be very short answer types/ multiple choice questions carrying I marks each (10x1). Q.2 and Q.3 will be of short answer type carrying 5 marks each. (5x2).
- Answer four out of six questions subjective / descriptive questions given in group B (4x20).
- Answer in your own words as far as practicable.
- Answer all sub parts of a question at one place.
- Numbers in right indicates full marks of the questions.

# Unit I: Multidisciplinary nature of Environmental Studies & Ecosystem

- 1.1 Definition, Scope and Importance
- 1.2 Need for public Awareness
- 1.3 Concept of Ecosystem: Structure and function of Ecosystem
- 1.4 Producers, Consumers, and Decomposers
- 1.5 Energy flow in ecosystem
- 1.6 Food Chain, Food web, Trophic levels and ecological pyramids
- 1.7 Ecological Succession

#### **Unit II: Natural Resources**

- 2.1 Renewable and Non-renewable Resources: definition and scope
- 2.2 Forest Resources: Use and Exploitation
- 2.3 Water Resources: Use and exploitation of groundwater and surface-water
- 2.4 Mineral Resources: Use and exploitation
- 2.5 Energy Resources: Growing energy needs, Renewable and non-renewable energy resources, use and of alternative energy resources
  - 2.6 Land Resources: Land as a resource, land degradation, soil erosion
  - 2.7 Role of individual in conservation of natural resources

## Unit III: Biodiversity and its Conservation

- 3.1 Introduction: Definition: Genetic, Species and ecosystem diversity
- 3.2 Biogeographical Classification of India
- 3.3 Value of Biodiversity
- 3.4 Biodiversity at global, national and local levels
- 3.5 India as a mega diversity nation
- 3.6 Hotspots of Biodiversity of India
- 3.7 Threats to Biodiversity
- 3.8 Endangered and Endemic species of India
- 3.9 Conservation of Biodiversity: In-situ and Ex-Situ Conservation

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## **Unit IV: Environmental Pollution**

- 4.1 Cause, Effects and Control measures of : a. Air pollution, b. Water Pollution, c. Soil Pollution, d. Soil Pollution, e. Marine Pollution, f. Noise Pollution
- 4.2 Solid Waste management
- 4.3 Wastewater Treatment and Management
- 4.4 Role of Individual in prevention of Pollution

### Unit V: Social Issues & Environment

- 5.1 From Unsustainable to Sustainable Environment
- 5.2 Urban Problems: Waste Disposal, Over -crowding, Deforestation
- 5.3 Water Conservation: Rainwater Harvesting, Watershed management
- 5.4 Climate Change, Global warming, Acid Rain, Ozone layer Depletion, Nuclear accidents
- 5.5 Environmental Protection Act,1986
- 5.6 Public awareness

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