

# Syllabus for PG entrance test for Environmental Science MGSUPGET-2017

## Environmental studies and Scope

- Definition and scope, public education and awareness
- Sustainable development
- Water conservation, rain water harvesting, water shed management
- Settlement and rehabilitation of people, its problem of concerns
- Environmental ethics-issues and possible solutions
- Ozone layer depletion, nuclear accidents.
- Wasteland reclamation
- Consumerism and waste products.

## Ecosystem

- 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, characteristic features, structure and function of the following ecosystems
- Forest ecosystem, Grassland ecosystem, Desert ecosystem  
Aquatic ecosystems (ponds, streams, lakes, rivers, oceans estuaries)

## Natural Resources:

- Renewable and non-renewable resources
- Natural resources, forest resources, use and over-exploitation, deforestation
- Mining, mineral resources use and exploitation
- Environmental effects of extracting and using mineral resources
- Food resources, world food problems
- Water resources, Dams, their effects on forests, tribal people and conflicts over water
- Renewable and non-renewable energy resources, use and needs of energy resources
- Land as a resource, land degradation, soil erosion & desertification
- Role of an individual in conservation of natural resources
- Equitable use of resources for sustainable system.
- Agriculture and livestock practices, fertilizer, pesticide problems, water logging, salinity.

## **Environmental laws and legislations:**

- Environmental protection act
- Wild life protection act
- Indian forest act
- Biological diversity act
- Pollution control laws for water, air and noise
- Waste management laws for solid waste, plastic waste, e-waste and biomedical waste
- Issues involved in enforcement of environmental legislation public awareness.

## **Biodiversity and its conservation**

- Introduction, definition and diversity at genetic, species and ecosystem level
- Biodiversity at global, national & local levels
- Value of biodiversity, consumptive use productive use, social, ethical, aesthetic and option values
- Hot-spots of biodiversity, India as a mega-diversity nation
- Threats to biodiversity - habitat loss poaching of wild life, man-wild life conflicts
- In situ and Ex-situ conservation of biodiversity.
- Wildlife conservation and management, endangered and endemic species of India
- Rajasthan Desert its climate, fauna and flora.
- Biogeographically classification of India.

## **Environmental Pollution**

- Definition, causes, effect and control measures of air pollution., water pollution, soil pollution, noise pollution, marine pollution
- Solid waste management : Causes, effects and control measures of urban industrial wastes
- Nuclear hazards.
- Disaster management: drought, flood, earthquake, cyclone and landslides.
- Role of an individual in prevention of pollution.

## **Human Population and the Environment**

- Population growth, variation among nations
- Population explosion-Family welfare programme
- Women & child welfare
- Environment and Human health.
- Role of information technology in environment and human health
- Value education