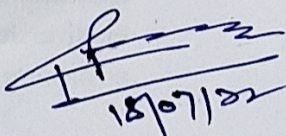


Syllabus for Entrance Test of M.Tech. (Environmental Sciences & Engg.)

1. **Physical Environment** : Composition of atmosphere, Heat Budget of earth, lapse rate and vertical stability of atmosphere, origin, composition and characteristics of water, hydrological cycle, different types of rocks and their formation, soil formation, different land use patterns.
2. **Ecology and Resource Conservation**: Aim and scope of ecology, population ecology, community ecology, structural and functional attributes of ecosystem, ecosystem modeling, renewable and non-renewable resources and their conservation, forest and wildlife, types of Biodiversity, Threats to Biodiversity, Biodiversity conservation strategies.
3. **Environmental Chemistry**: Thermodynamics; Atmospheric, Soil and water Chemistry.
4. **Environmental Microbiology**: Characteristics of different types of microbes, Microbiology of water and soil, Role of microbes in degradation of different types of environment pollutants, Basic techniques of Genetic engineering. Environmental application of genetically modified organisms.
5. **Environment Pollution and its abatement**: Different types of environmental pollution and their health impacts. Strategies for abatement of different types of environmental pollution.
6. **Environmental Impact Assessment and Environmental Management System**: Concept of EIA, Methodologies for impact identification, prediction and evolution, Role of public participation, EIA notification (MoEF), ISO 14000. Study of natural and technological hazards, Risk Analysis.
7. **Environment Awareness**: Climate change, Ozone depletion, Acid rain, environmental conventions and Treaties, Environmental movements, Environmental laws.
8. **Instrumentation**: Principles, working and applications of various instruments used for environment analysis.


18/07/22
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