Subject: MC/2-T Environmental Sciences   **Sem: 3ʳᵈ (Data Science)**

Week	Lecture Day	Topic (Including assignment / Test)	Date	HOD	Director Principal
		Theory			
1ˢᵗ	1	Multidisciplinary nature of Environmental studies: Definition, scope and importance			
	2	Need for public awareness; Concept ,Structure and function of an ecosystem			
	3	Energy flow in the ecosystem, Ecological succession, Food chains, Food websand ecological pyramids			
2ⁿᵈ	4	Introduction, types, characteristics features, structure and function of Forest ecosystem, Grassland ecosystem, Desert ecosystem,Aquatic ecosystem(Ponds Stream lakes, rivers, oceans, estuaries)			
	5	Biodiversity: Introduction, Definition: genetic, species and ecosystem diversity, biogeographically classification of India			
	6	Value of biodiversity: consumptive use, productive use socialethical, aesthetic and option values, Biodiversity at global, national and local, India as a mega diversity nation, hot spot ofbiodiversity			
3ʳᵈ	7	Threats to biodiversity: habitat loss, poaching of wild life, man-wild life conflicts,			
	8	Endangered and endemic species of India, Conservation of biodiversity :In-situ and Ex-situ conservation of biodiversity			
	9	Renewable and non-renewable resources, Natural resources and associatedproblems,			
4ᵗʰ	10	Forest resources: Use and over-exploitation, deforestation, case studies			
	11	Timber extraction, mining, dams and their effects on forests and tribal people;			
	12	Water resources: Use and over utilization of surface and ground water,floods, drought conflicts over water, dams benefits and problems;			
5ᵗʰ	13	Mineral resources :Use and exploitation, environmental effects of extracting and mineral resources;			
	14	Food resources :World food problem, changes caused byagriculture and overgrazing, effects of modern agriculture, fertilizer pesticide problems, water logging, salinity;			
	15	Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, case studies;			
6ᵗʰ	16	Land resources :Land resource, land degradation, main inducedlandslides, soil erosion and desertification,			
	17	Role of an individual in conservation of natural resources,			
	18	Equitable use of resources for suitable life style.			
7ᵗʰ		**Minor test-1**			
8ᵗʰ	19	Definition of Environment Pollution; Causes, effects and control measures of :Air Pollution,			
	20	Water Pollution, Soil pollution, Marine pollution,			
	21	Noise pollution, Thermal pollution, Nuclear hazards ;Solid waste Management: Causes effects and control measures of urban and industrial wastes;			
9ᵗʰ	22	Role of an individual in prevention of pollution,			
	23	Pollution case studies; Disaster management: floods, earthquake, cyclone andlandslides			
	24	Climate change, global warming, acid rain, ozone layer depletion,nuclear accidents and holocaust,			
10ᵗʰ	25	Case studies; different laws related to environment: Environment Protection Act, Air (Prevention and Control of Pollution)Act,			
	26	Water (Prevention and Control of Pollution) Act, Wildlife Protection Act,			
	27	Forest Conservation Act.; Issues involved in enforcement of environmental legislation ,Public awarene			
11ᵗʰ	28	Social issues and the Environment: From unsustainable to Sustainabledevelopment,			
	29	Urban problems related to energy; Water conservation, rainwater harvesting,			
	30	Watershed management; Resettlement and rehabilitation of people ;its problem and concern case studies			
12ᵗʰ	31	Environment ethics: Issues and possible solutions;			
	32	Wasteland reclamation; Consumer is man waste products;			
	33	Human Population growth, variation among nation,			
13ᵗʰ	34	Population explosion-Family Welfare Programmer,			
	35	Environment and human health, Human Rights, Value Education ,HIV/AIDS,			
	36	Women and Child Welfare,			
14ᵗʰ		**Minor Test-2**			
15ᵗʰ	37	Role of Information Technology in Environment and human health, CaseStudies			