

**Academic lesson plan for 3<sup>rd</sup> semester (summer 2022)**

Name of teaching faculty:

Discipline/Deptt: Civil Engg.

Semester: 3<sup>rd</sup>

Subject (Theory): Th-5: Environmental studies

No. of periods per week: 4

Total Periods: 60

End semester Exam: 80

Class test: 20

Total marks: 100

Week	Period	Unit/Chapter	Topics to be covered
1 <sup>st</sup>	1 <sup>st</sup>	1	The Multidisciplinary nature of environmental studies- Definition,
	2 <sup>nd</sup>		scope
	3 <sup>rd</sup>		Importance
	4 <sup>th</sup>		Need for public awareness.
2 <sup>nd</sup>	1 <sup>st</sup>	2	Natural Resources- Renewable and non renewable resources: a) Natural resources and associated problems.
	2 <sup>nd</sup>		Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining, dams and their effects on forests and tribalpeople.
	3 <sup>rd</sup>		Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam's benefits and problems.
	4 <sup>th</sup>		Mineral Resources: Use and exploitation, environmental effects of extracting and using mineralresources.
3 <sup>rd</sup>	1 <sup>st</sup>		Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizers-pesticides problems, water logging, salinity,.
	2 <sup>nd</sup>		Energy Resources: Growing energy need,
	3 <sup>rd</sup>		renewable and nonrenewable energy sources, use of alternate energy sources, case studies.
	4 <sup>th</sup>		Land Resources: Land as a resource, land degradation, man induces landslides, soil erosion, and desertification.
4 <sup>th</sup>	1 <sup>st</sup>	3	b) Role of individual in conservation of natural resources.
	2 <sup>nd</sup>		c) Equitable use of resources for sustainable life styles.
	3 <sup>rd</sup>		Systems - Concept of an eco system.
	4 <sup>th</sup>		Structure and function of an eco system.
5 <sup>th</sup>	1 <sup>st</sup>		Producers, consumers, decomposers.
	2 <sup>nd</sup>		Energy flow in the eco systems
	3 <sup>rd</sup>		Ecological succession
	4 <sup>th</sup>		Food chains, food webs and ecological pyramids
6 <sup>th</sup>	1 <sup>st</sup>	4	Introduction, types, characteristic features, structure
	2 <sup>nd</sup>		Function of the following eco system: Forest ecosystem, Aquatic eco systems (ponds, streams, lakes,rivers, oceans, estuaries)
	3 <sup>rd</sup>		Biodiversity and it's Conservation Introduction-
	4 <sup>th</sup>		Definition: genetics, species and ecosystem diversity
7 <sup>th</sup>	1 <sup>st</sup>		Biogeographically classification of India
	2 <sup>nd</sup>		Value of biodiversity: consumptive use,
	3 <sup>rd</sup>		productive use, social ethical values
	4 <sup>th</sup>		Aesthetic and optin values.

8 <sup>th</sup>	1 <sup>st</sup>		Biodiversity at global, national and local level.
	2 <sup>nd</sup>		Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.
	3 <sup>rd</sup>	5	Environmental Pollution- Definition Causes, effects and control measures of: a) Air pollution.
	4 <sup>th</sup>		b) Water pollution.
9 <sup>th</sup>	1 <sup>st</sup>		c) Soil pollution
	2 <sup>nd</sup>		d) Marine pollution
	3 <sup>rd</sup>		e) Noise pollution.
	4 <sup>th</sup>		f) Thermal pollution
10 <sup>th</sup>	1 <sup>st</sup>		g) Nuclear hazards.
	2 <sup>nd</sup>		Solid waste Management: Causes, effects
	3 <sup>rd</sup>		Control measures of urban and industrial wastes.
	4 <sup>th</sup>		Role of an individual in prevention of pollution.
11 <sup>th</sup>	1 <sup>st</sup>		Disaster management: Floods, earth quake,
	2 <sup>nd</sup>		Cyclone and landslides.
	3 <sup>rd</sup>	6	Social issues and the Environment Form unsustainable to sustainable development
	4 <sup>th</sup>		Urban problems related to energy
12 <sup>th</sup>	1 <sup>st</sup>		Water conservation, rain water harvesting
	2 <sup>nd</sup>		Water shed management
	3 <sup>rd</sup>		Resettlement and rehabilitation of people; its problems and concern
	4 <sup>th</sup>		Environmental ethics: issue and possible solutions
13 <sup>th</sup>	1 <sup>st</sup>		Climatechange, globalwarming,acidrain,ozonelayerdepletion
	2 <sup>nd</sup>		Nuclear accidents and holocaust, case studies.
	3 <sup>rd</sup>		Air (prevention and control of pollution) Act, Water (prevention and control of pollution) Act.
	4 <sup>th</sup>		Public awareness.
14 <sup>th</sup>	1 <sup>st</sup>	7	Human population and the environment- Population growth and variation among nations
	2 <sup>nd</sup>		Population explosion- family welfare program
	3 <sup>rd</sup>		Environment and humanhealth
	4 <sup>th</sup>		Human rights
15 <sup>th</sup>	1 <sup>st</sup>		Value education
	2 <sup>nd</sup>		Role of information technology in environment
	3 <sup>rd</sup>		Role of information technology in human health.
	4 <sup>th</sup>		Discussion of previous year questions.