

Discipline :- MECHANICAL ENGG.	Semester:- 3rd	Name of the Teaching Faculty:- SWATILEENA SATPATHY LECTURER (CHEMISTRY)
Subject:- ENVIRONMENTAL STUDIES	No of Days/per Week Class Allotted :-4	Semester From Date : 15/09/2022 To Date: 22/12/2022 No of Weeks:- 15
WEEK	CLASS/ DAY	THEORY TOPICS
1 st	1 st	Definition, Scope of Environmental studies
	2 nd	Multidisciplinary nature of environment
	3 rd	Importance
	4 th	Need for public awareness
2 nd	1 st	Natural resources and associated problems.
	2 nd	Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining
	3 rd	Forest resources: dams and their effects on forests and tribal people.
	4 th	Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water
3 rd	1 st	Water resources: dam's benefits and problems
	2 nd	Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources
	3 rd	Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizers-pesticides problems, water logging, salinity
	4 th	Energy Resources: Growing energy need, renewable and non-renewable energy sources, use of alternate energy sources, case studies
4 th	1 st	Land Resources: Land as a resource, land degradation, man induces landslides, soil erosion and desertification
	2 nd	Role of individual in conservation of natural resources. Equitable use of resources for sustainable life styles
	3 rd	Concept of an ecosystem. Structure and function of an ecosystem.
	4 th	Producers, consumers, decomposers
5 th	1 st	Energy flow in the eco systems
	2 nd	Ecological succession
	3 rd	Food chains, food webs and ecological pyramids
	4 th	Introduction, types, characteristic features, structure and function of Forest ecosystem
		CLASS TEST-1
6 th	1 st	Introduction, types, characteristic features, structure and function of Aquatic eco systems (ponds, streams)
	2 nd	Introduction, types, characteristic features, structure and function of Aquatic eco systems (rivers, oceans, estuaries)
	3 rd	Introduction: Biodiversity and it's Conservation
	4 th	Definition: genetics, species and ecosystem diversity
7 th	1 st	Biogeographically classification of India
	2 nd	Value of biodiversity: consumptive use, productive use
	3 rd	Value of biodiversity: social ethical, aesthetic and optin values
	4 th	Biodiversity at global, national and local level

8 th	1 st	Threats to biodiversity: Habitats loss, poaching of wild life
	2 nd	Threats to biodiversity: man wildlife conflicts.
	3 rd	Air pollution: Causes, effects
	4 th	Air pollution: Control measures
9 th	1 st	Water pollution: Causes, effects
	2 nd	Water pollution: Control measures
	3 rd	Soil pollution
	4 th	Marine pollution
10 th	1 st	Noise pollution
	2 nd	Thermal pollution
	3 rd	Nuclear hazards
	4 th	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.
11 th	1 st	Role of an individual in prevention of pollution
	2 nd	Disaster management: Floods, earth quake, cyclone and landslides
		INTERNAL ASSESSMENT
	3 rd	Form unsustainable to sustainable development
12 th	4 th	Urban problems related to energy
	1 st	Water conservation, rain water harvesting, water shed management
	2 nd	Resettlement and rehabilitation of people; its problems and concern
	3 rd	Environmental ethics: issue and possible solutions.
13 th	4 th	Climate change, global warming, acid rain
	1 st	Ozone layer depletion, nuclear accidents and holocaust, case studies.
	2 nd	Air (prevention and control of pollution) Act
	3 rd	Water (prevention and control of pollution) Act
	4 th	Public awareness
		CLASS TEST-2
14 th	1 st	Population growth
	2 nd	Population explosion- family welfare program.
	3 rd	Environment and human health.
	4 th	Human rights.
15 th	1 st	Value education
	2 nd	Role of information technology in environment
	3 rd	Role of information technology in Human health
	4 th	Previous Year Question paper discussion

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 1st/9/2020
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