

Discipline : <b>MECHANICAL ENGINEERING</b>	Semester : 3RD	Name of the Teaching Faculty: <b>MISS SUBHASHREE PRIYADARSHINI</b>
Subject: <b>ENVIRONMENTAL STUDIES</b>	No. of days/per week class allotted: <b>05</b>	Semester From Date: 01/09/2020 To Date: 19/03/2021 No. of Weeks: <b>15</b>
Week	Class Day	Theory Topics
1 <sup>ST</sup>	1 <sup>ST</sup>	Unit-1- Multidisciplinary nature of environmental studies- Introduction,
	2 <sup>ND</sup>	Definition , Scope and importance
	3 <sup>RD</sup>	Need for public awareness
	4 <sup>TH</sup>	Doubt clearing
	5 <sup>TH</sup>	Unit-2- Natural resources- Introduction , definition, Associated problems
2 <sup>ND</sup>	1 <sup>ST</sup>	Forest Resources- Use & over exploitation, deforestation, Case studies
	2 <sup>ND</sup>	Timber extraction, mining, dams and their effects on forests and tribal people
	3 <sup>RD</sup>	Water resources- use & over utilization of surface & ground water, floods, drought
	4 <sup>TH</sup>	Conflicts over water, dams benefits and problems
	5 <sup>TH</sup>	Mineral resources- use & exploitation, environmental effects of extracting and using mineral resources
3 <sup>RD</sup>	1 <sup>ST</sup>	Food resources- World food problem, Changes caused by agriculture & over grazing,
	2 <sup>ND</sup>	Effects of modern agriculture, fertilizers & pesticide problems, water logging & salinity
	3 <sup>RD</sup>	Energy resources- Growing energy need, Renewable & non- renewable energy source, use of alternate energy sources
	4 <sup>TH</sup>	Case studies, Land resources- land as a resource, land degradation, man induced landslides,
	5 <sup>TH</sup>	Soil erosion, desertification
4 <sup>TH</sup>	1 <sup>ST</sup>	Role of individual in conservation of natural resources, Equitable use of resources for sustainable lifestyles
	2 <sup>ND</sup>	Unit-3- Ecosystem: concept of ecosystem, structure of ecosystem
	3 <sup>RD</sup>	Function of ecosystem, Producers, consumers,decomposers
	4 <sup>TH</sup>	Energy flow in ecosystem ,ecological succession
	5 <sup>TH</sup>	Food chain, food web, ecological pyramid
5 <sup>TH</sup>	1 <sup>ST</sup>	Forest ecosystem- definition, types, characteristics
	2 <sup>ND</sup>	Forest ecosystem- structure & function
	3 <sup>RD</sup>	Pond ecosystem
	4 <sup>TH</sup>	Stream ecosystem
	5 <sup>TH</sup>	Lake ecosystem
6 <sup>TH</sup>	1 <sup>ST</sup>	River ecosystem
	2 <sup>ND</sup>	Ocean ecosystem

	3 <sup>RD</sup>	Estuaries ecosystem
	4 <sup>TH</sup>	Unit -4- Biodiversity & its conservation: introduction, definition, genetics, species, and ecosystem diversity
	5 <sup>TH</sup>	Biogeographical classification of India
7 <sup>TH</sup>	1 <sup>ST</sup>	Value of biodiversity
	2 <sup>ND</sup>	Biodiversity at global level
	3 <sup>RD</sup>	Biodiversity at national level
	4 <sup>TH</sup>	Habitat loss, poaching of wildlife
	5 <sup>TH</sup>	Man wildlife conflicts
8 <sup>TH</sup>	1 <sup>ST</sup>	Doubt clearing
	2 <sup>ND</sup>	Unit-5- Environmental pollution: introduction, definition
	3 <sup>RD</sup>	Air pollution
	4 <sup>TH</sup>	Control of air pollution
	5 <sup>TH</sup>	Water pollution
9 <sup>TH</sup>	1 <sup>ST</sup>	Control of water pollution
	2 <sup>ND</sup>	Soil pollution
	3 <sup>RD</sup>	Marine pollution
	4 <sup>TH</sup>	Noise pollution
	5 <sup>TH</sup>	Thermal pollution
10 <sup>TH</sup>	1 <sup>ST</sup>	Nuclear pollution
	2 <sup>ND</sup>	Solid waste management- causes, effect
	3 <sup>RD</sup>	Control measures
	4 <sup>TH</sup>	Waste management
	5 <sup>TH</sup>	Role of individual in prevention of pollution
11 <sup>TH</sup>	1 <sup>ST</sup>	Flood management
	2 <sup>ND</sup>	Earthquake management
	3 <sup>RD</sup>	Cyclone management
	4 <sup>TH</sup>	Landslides management
	5 <sup>TH</sup>	Unit-6- Social issues & the environment: From unsustainable to sustainable development, urban problems related to energy.
12 <sup>TH</sup>	1 <sup>ST</sup>	Water conservation , rain water harvesting
	2 <sup>ND</sup>	Watershed management, resettlement and rehabilitation of people; its problem and concern
	3 <sup>RD</sup>	Environmental ethics: issue and possible solutions.
	4 <sup>TH</sup>	Climate change, global warming
	5 <sup>TH</sup>	Acid rain , ozone layer depletion,
13 <sup>TH</sup>	1 <sup>ST</sup>	Nuclear accidents and holocaust,
	2 <sup>ND</sup>	case studies
	3 <sup>RD</sup>	Air ( prevention and control of pollution ) Act
	4 <sup>TH</sup>	Water ( prevention and control of pollution ) Act
	5 <sup>TH</sup>	Public awareness
14 <sup>TH</sup>	1 <sup>ST</sup>	Doubt clearing
	2 <sup>ND</sup>	Unit 7- Human population and the Environment: population growth and variation among nations (introduction)
	3 <sup>RD</sup>	population growth and variation among nations
	4 <sup>TH</sup>	Population explosion, family welfare program
	5 <sup>TH</sup>	Environment and human health
15 <sup>TH</sup>	1 <sup>ST</sup>	Human rights

	2 <sup>ND</sup>	Value education
	3 <sup>RD</sup>	Role of information technology in environment and human health
	4 <sup>TH</sup>	Doubt clearing, revision
	5 <sup>TH</sup>	Revision and Previous year question discussion

### **Learning Resources:**

01. A Textbook of Environmental Studies, by K Raghavan Nambier
02. Environmental studies , S. Chand Publication
03. Wikipedia