Discipline : MECHANICAL ENGINEERING.	Semester : 3RD	Name of the Teaching Faculty: SHUBHAJIT BISWAL
Subject: ENVIRONMENTAL STUDIES(TH-5)	No. of days/per weekclass allotted:04	Semester From Date:01/08/2023 To Date:30/11/2023 No. of Weeks: 15

Week	Class Day	Theory Topics
1ST	1ST	**Unit-1-** Multidisciplinary nature of environmental studies- Introduction,
	2ND	• Definition , Scope and importance
	3RD	• Need for public awareness
	4TH	• Discussion of probable question
2ND	1ST	**Unit-2-** -RENEWABLE AND NON- RENEWABLE RESORCES Natural resources & Associated problems Forest Resources- Use & over exploitation, deforestation, Case studies
	2ND	• Timber extraction, mining, dams and their effects on forests • and tribal people
	3RD	• Water resources- use & over utilization of surface & ground • water, floods, drought
	4TH	• Conflicts over water, dams benefits and problems, Mineral resources- use & exploitation, environmental effects of extracting and using mineral resources
3RD	1ST	• Mineral resources- use & exploitation, environmental effects • of extracting and using mineral resources
	2ND	• Food resources- World food problem, Changes caused by • agriculture & over grazing,
	3RD	• Effects of modern agriculture, fertilizers & pesticide • problems, water logging & salinity
	4TH	• Energy resources- Growing energy need, Renewable & non- • renewable energy source, use of alternate energy sources
4TH	1ST	• Case studies, Land resources- land as a resource, land • degradation, man induced landslides,
	2ND	• Soil erosion, desertification, Role of individual in conservation of natural resources,Equitable use of resources for sustainable lifestyles
	3RD	• **Unit-3-** • Ecosystem: concept of ecosystem, structure & function of an • Ecosystem, Function of ecosystem, Producers, consumers, decomposers
	4TH	• Energy flow in ecosystem ,ecological succession, Food chain, food web, ecological pyramid
5TH	1ST	• Forest ecosystem- definition, types, characteristics
	2ND	• Forest ecosystem- structure & function
	3RD	• Aquatic ecosystem,Pond ecosystem
	4TH	• Stream ecosystem. Lake ecosystem, River ecosystem
6TH	1ST	• Ocean ecosystem, Estuaries ecosystem
	2ND	• CLASS TEST
	3RD	**Unit -4-** • Biodiversity & its conservation: introduction,

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

Sushant 28/7/2023

Principal 28/7/23
GIET (Polytechnic

Learning Resources:

Sl.No	Title of the Book	Name of Authors	Name of Publisher
1	Text book of Environmental studies	Erach Bharucha	# UGC
2	Fundamental concepts in Environmental Studies	,D.D .Mishra	S. Chand&Co-Ltd
3	Textbook of Environmental Studies	K.Raghavan Nambiar	SCITECH Publication Pvt. Ltd.
4	Environmental Engineering	V.M.Domkundwar	- DhanpatRai&Co

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