

LESSON PLAN	
JHARSUGUDA ENGINEERING SCHOOL, JHARSUGUDA	
Name of the Faculty: SOUMYA SOURAJA PANDA	Academic Year: 2022-23
Course No.: Th-5	Course Name: ENVIRONMENTAL STUDIES
Program: Diploma	Branch: Electrical
Year/Sem: III	Section:

Week No.	Period	Time (min)	Unit/Chapter	Topic to be covered	Teaching method
1 st	1.	55	1	Objective of nature of environmental studies, concept	Black board
	2.	55	1	The Multidisciplinary nature of environmental studies	Black board
	3.	55	1	Definition, scope and importance, Need for public awareness	Black board
	4.	55	1	Revision of unit/chapter-1	Black board
2 nd	5.	55	2	Natural Resources Renewable and non renewable resources: Natural resources and associated problems	Black board
	6.	55	2	Forest resources: Use and over-exploitation, deforestation, case studies	Black board
	7.	55	2	Timber extraction mining, dams and their effects on forests and tribal people.	Black board
	8.	55	2	Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam's benefits and problems	Black board
3 rd	9.	55	2	Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources.	Black board
	10.	55	2	Food Resources: World food problems ,changes caused by agriculture	Black board
	11.	55	2	Overgrazing, effects of modern agriculture, fertilizers-pesticides problems, water logging, salinity	Black board
	12.	55	2	Energy Resources: Growing energy need, renewable and non-renewable energy sources, use of alternate energy sources	Audio visual smart class
4 th	13.	55	2	case studies	Black board
	14.	55	2	Land Resources: Land as a resource ,land degradation ,man induces landslides, soil erosion, and desertification.	Black board
	15.	55	2	Role of individual in conservation of natural resources, Equitable use of resources for sustainable lifestyles.	Black board
	16.	55	2	Revision of unit/chapter-2	Black board

5 th	17.	55	3	Concept of an ecosystem, Structure and function of an ecosystem	Audio visual smart class
	18.	55	3	Producers, consumers, decomposers, Energy flow in the ecosystems, Ecological succession	Black board
	19.	55	3	Food chains, food web sand	Black board
	20.	55	3	ecological pyramids, Introduction, types, characteristic features	Black board
6 th	21.	55	3	structure and function of the following ecosystem	Black board
	22.	55	3	Forest ecosystem, Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).	Black board
	23.	55	3	Revision of unit/chapter-3	Black board
	24.	55	4	Biodiversity and it's Conservation ,Introduction-Definition: genetics, species and ecosystem diversity.	Black board
7 th	25.	55	4	Biogeographically classification of India	Black board
	26.	55	4	Value of biodiversity: consumptive use, productive use	Black board
	27.	55	4	Social ethical, aesthetic and opt in values	Black board
	28.	55	4	Biodiversity at global, national and local level	Black board
8 th	29.	55	4	Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts	Black board
	30.	55	4	Revision of unit/chapter-4	Black board
	31.	55	5	Environmental Pollution:Definition Causes, effects and control measures of: a) Air pollution.	Audio visual smart class
	32.	55	5	b) Water pollution. c) Soil pollution d) Marine pollution	Audio visual smart class
9 th	33.	55	5	e) Noise pollution. f) Thermal pollution g) Nuclear hazards.	Audio visual smart class
	34.	55	5	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.	Black board
	35.	55	5	Role of an individual in prevention of pollution.	Black board
	36.	55	5	Disaster management: Floods, earth quake, cyclone and landslides	Black board
10 th	37.	55	5	Revision of unit/chapter-5	Black board
	38.	55	6	Social issues and the Environment :From unsustainable to sustainable development, Urban problems related to energy	Black board

	39.	55	6	Water conservation, rain water harvesting, water shed management.	Black board
	40.	55	6	Resettlement and rehabilitation of people; its problems and concern	Black board
11 th	41.	55	6	Environmental ethics: issue and possible solutions	Black board
	42.	55	6	Climate change, global warming, acid rain, ozone layer depletion	Audio visual smart class
	43.	55	6	nuclear accidents and holocaust, case studies, Air (prevention and control of pollution) Act	Black board
	44.	55	6	Water (prevention and control of pollution) Act, Public awareness	Black board
12 th	45.	55	6	Revision of unit/chapter-6	Black board
	46.	55	7	Human population and the environment.	Black board
	47.	55	7	Population growth and variation among nations	Black board
	48.	55	7	Population explosion-family welfare program, Environment and human health	Black board
13 th	49.	55	7	Human rights, Value education	Black board
	50.	55	7	Role of information technology in environment and human health.	Black board
	51.	55	7	Revision of unit/chapter-7	Black board
	52.	55		Tutorial class for unit/Chapter-1	Black board
14 th	53.	55		Tutorial class for unit/Chapter-2	Black board
	54.	55		Tutorial class for unit/Chapter-3	Black board
	55.	55		Tutorial class for unit/Chapter-4	Black board
	56.	55		Tutorial class for unit/Chapter-5	Black board
15 th	57.	55		Tutorial class for unit/Chapter-6	Black board
	58.	55		Tutorial class for unit/Chapter-7	Black board
	59.	55		Semester Question and Answer discussion	Black board
	60.	55		Semester Question and Answer discussion	Black board

Text Book:

1. Text book of Environmental studies, Erach Bharucha, UGC Publication
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, Dhanpat Rai & Co