

### ACADEMIC LESSON PLAN OF WINTER 2023

Discipline: ELECTRICAL	Semester: 3 <sup>rd</sup> sem (Sec-B)	Name of the Teaching Faculty: LUCKY RANI BEHURIA
Subject: Environmental Studies	No. of days/per week class allotted:4p/week	Semester From: 1 <sup>st</sup> Aug 2023 to 30 <sup>th</sup> Nov 2023 No. of weeks:17 weeks
Week	Class Day	Theory Topics
1 <sup>st</sup>	1 <sup>st</sup>	1. The Multidisciplinary nature of environmental studies: 1.1 Definition, scope and importance.
	2 <sup>nd</sup>	1.2 Need for public awareness.
	3 <sup>rd</sup>	1.2 Need for public awareness.(contd.)
	4 <sup>th</sup>	2.1 Natural resources and associated problems.
2 <sup>nd</sup>	1 <sup>st</sup>	2.1 Natural resources and associated problems. 2.1.1. Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining, dams and their effects on forests and tribal people.
	2 <sup>nd</sup>	2.1.2. Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam's benefits and problems.
	3 <sup>rd</sup>	2.1.2. Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam's benefits and problems. .(contd.)
	4 <sup>th</sup>	2.1.3. Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources.
3 <sup>rd</sup>	1 <sup>st</sup>	2.1.4. 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>	2.1.4. Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizers- pesticides problems, water logging, salinity.(contd.)
	3 <sup>rd</sup>	2.1.5. Energy Resources: Growing energy need, renewable and non-renewable energy sources, use of alternate energy sources, case studies.
	4 <sup>th</sup>	2.1.6. Land Resources: Land as a resource, land degradation, man induces landslides, soil erosion, and desertification.
4 <sup>th</sup>	1 <sup>st</sup>	2.2 Role of individual in conservation of natural resources.
	2 <sup>nd</sup>	2.3 Equitable use of resources for sustainable life styles.
	3 <sup>rd</sup>	3.1. Concept of an eco system.
	4 <sup>th</sup>	3.2. Structure and function of an eco system. 3.3. Producers, consumers, decomposers.
5 <sup>th</sup>	1 <sup>st</sup>	3.4. Energy flow in the eco systems.
	2 <sup>nd</sup>	3.5. Ecological succession. 3.6. Food chains, food webs and ecological pyramids.
	3 <sup>rd</sup>	3.7. Introduction, types, characteristic features, structure and function of the following eco system
	4 <sup>th</sup>	3.8. Forest ecosystem.
6 <sup>th</sup>	1 <sup>st</sup>	3.9. Aquatic eco systems (ponds, streams, lakes, rivers, oceans)
	2 <sup>nd</sup>	4.1. Introduction-Definition: genetics, species and ecosystem diversity.
	3 <sup>rd</sup>	4.2. Biogeographically classification of India.
	4 <sup>th</sup>	4.3. Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and optin values.
7 <sup>th</sup>	1 <sup>st</sup>	4.4. Biodiversity at global, national and local level. (Conti...)
	2 <sup>nd</sup>	4.4. Biodiversity at global, national and local level.
	3 <sup>rd</sup>	4.5. Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.
	4 <sup>th</sup>	5.1. Definition Causes, effects and control measures.
8 <sup>th</sup>	1 <sup>st</sup>	5.1.1 Air pollution.
	2 <sup>nd</sup>	5.1.2 Water pollution.
	3 <sup>rd</sup>	5.1.3 Soil pollution
	4 <sup>th</sup>	5.1.4 Marine pollution.

9 <sup>th</sup>	1 <sup>st</sup>	5.1.5 Noise pollution.
	2 <sup>nd</sup>	5.1.6 Thermal pollution.
	3 <sup>rd</sup>	5.1.7 Nuclear hazards.
	4 <sup>th</sup>	5.2. Solid waste Management: Causes, effects and control measures of urban and industrial wastes. (Conti...)
10 <sup>th</sup>	1 <sup>st</sup>	5.2. Solid waste Management: Causes, effects and control measures of urban and industrial wastes.
	2 <sup>nd</sup>	5.3. Role of an individual in prevention of pollution.
	3 <sup>rd</sup>	5.4. Disaster management: Floods, earth quake, cyclone and landslides.
	4 <sup>th</sup>	6.1. Form unsustainable to sustainable development.
11 <sup>th</sup>	1 <sup>st</sup>	6.2. Urban problems related to energy.
	2 <sup>nd</sup>	6.3. Water conservation, rain water harvesting, water shed management.
	3 <sup>rd</sup>	6.4. Resettlement and rehabilitation of people; its problems and concern.
	4 <sup>th</sup>	6.5. Environmental ethics: issue and possible solutions.
12 <sup>th</sup>	1 <sup>st</sup>	6.6. Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies. (Conti...)
	2 <sup>nd</sup>	6.6. Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies.
	3 <sup>rd</sup>	6.7. Air (prevention and control of pollution) Act.
	4 <sup>th</sup>	6.8. Water (prevention and control of pollution) Act.
13 <sup>th</sup>	1 <sup>st</sup>	6.9. Public awareness.
	2 <sup>nd</sup>	7.1. Population growth and variation among nations. (Conti...)
	3 <sup>rd</sup>	7.1. Population growth and variation among nations.
	4 <sup>th</sup>	7.2. Population explosion- family welfare program.
14 <sup>th</sup>	1 <sup>st</sup>	7.3. Environment and human health. (Conti..)
	2 <sup>nd</sup>	7.3. Environment and human health.
	3 <sup>rd</sup>	7.4. Human rights.
	4 <sup>th</sup>	7.5. Value education
15 <sup>th</sup>	1 <sup>st</sup>	7.6. Role of information technology in environment and human health. (Conti..)
	2 <sup>nd</sup>	7.6. Role of information technology in environment and human health.
	3 <sup>rd</sup>	7.7 Discussion about population explosion effects on environment
	4 <sup>th</sup>	7.7 Discussion about population explosion effects on environment(Conti..)
16 <sup>th</sup>	1 <sup>st</sup>	Revision
	2 <sup>nd</sup>	Revision
	3 <sup>rd</sup>	Revision
	4 <sup>th</sup>	Revision
17 <sup>th</sup>	1 <sup>st</sup>	Revision
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*Lucky Rani Belueia*

Signature of Teaching Faculty

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*Lucky Dani Belueia*

Signature of Teaching Faculty