

**KIIT POLYTECHNIC**  
Department of Metallurgical Engineering

***LESSON PLAN***

<b>Session</b>	::	Winter – 2022
<b>Course Type</b>	::	Theory
<b>Semester/Branch</b>	::	3 <sup>rd</sup> Semester, ELECT/META
<b>Subject (with code)</b>	::	Environmental Study (Th-5)
<b>Contact hours/week</b>	::	4 hours
<b>Name of Faculty</b>	::	RAKESH ROSHAN

SL. NO.	CLASS ID	COURSE CONTENT	MODE OF DELIVERY	EXHIBIT/ REFERENCE
1	1	<b>Unit-I: The Multidisciplinary nature of environmental studies:</b> Definition, scope and importance,	Personal Video link	<a href="https://www.youtube.com/watch?v=j3GuFY6nxwQ&amp;t=522s">https://www.youtube.com/watch?v=j3GuFY6nxwQ&amp;t=522s</a>
2	2	Need for public awareness.	Student Presentation	Text Book
3	3	<b>Unit-II: Renewable and non renewable resources:</b> Forest resources: Use and over-exploitation, Deforestation	Video Content	<a href="https://www.youtube.com/watch?v=cyl9uLt4swo&amp;list=PLbRMhDVUMngcDrGXlt-hX-ekpldUIC2b6&amp;index=23">https://www.youtube.com/watch?v=cyl9uLt4swo&amp;list=PLbRMhDVUMngcDrGXlt-hX-ekpldUIC2b6&amp;index=23</a>
4	4	Case studies, Timber extraction. & Mining dams and their effects on forests and tribal people	Lecture	Study material
5	5	Water resources: Use and over-utilization of surface and ground water, floods.	Lecture	Study material
6	6	Drought, conflicts over water, dams benefits and problems	Group Discussion	Text Book
7	7	Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources	Lecture	Study material
8	8	Food Resources: World food problems, changes caused by agriculture and over grazing.	Lecture	Text Book
9	9	Effects of modern agriculture, fertilisers-pesticides problems, water logging, salinity.	Lecture	Study material
10	10	Energy Resources: Growing energy need, renewable and non-renewable energy sources, use of alternate energy sources, case studies	Guest lecture	To be added
11	11	Difference between renewable and non renewable energy source	Lecture	Study material
12	12	Land Resources: Land as a resource, land degradation, man induces landslides, soil erosion, and desertification Soil erosion and desertification	Video Content	<a href="https://www.youtube.com/watch?v=b24jORRoxEc">https://www.youtube.com/watch?v=b24jORRoxEc</a>
13	13	<b>QUIZ TEST 1</b>		Text Book
14	14	<b>Unit 3: Ecosystems:</b> Concept of an eco system. Structure and function of an eco system.	Video Content	<a href="https://www.youtube.com/watch?v=gtmlC2UZFYU&amp;list=PLLy_2iUCG87CkrNdXME16BCptwGx1fl67&amp;index=42">https://www.youtube.com/watch?v=gtmlC2UZFYU&amp;list=PLLy_2iUCG87CkrNdXME16BCptwGx1fl67&amp;index=42</a>
15	15	Producers, consumers, decomposers.& Energy flow in Ecosystems	Lecture	Study material
16	16	Ecological succession, Food chains, food webs & ecological pyramids	Lecture	Study material

17	17	Introduction, types, characteristic features, structure and function of the following eco system: Forest ecosystem: Aquatic eco systems (ponds, streams, lakes, .	Lecture	Study material
18	18	Aquatic eco systems-ponds & Aquatic eco systems- rivers, Oceans, estuaries	Video Content	<a href="https://www.youtube.com/watch?v=DANGZvHOgj0&amp;list=PLbRMhDVUMngcDrGXlt-hX-ekpldUIC2b6&amp;index=39">https://www.youtube.com/watch?v=DANGZvHOgj0&amp;list=PLbRMhDVUMngcDrGXlt-hX-ekpldUIC2b6&amp;index=39</a>
19	19	<b>PRACTICE TEST 1</b>		Class Notes
20	20	<b>Unit 4: Biodiversity and it's Conservation:</b> Introduction-Definition: genetics, species and ecosystem diversity.	Video Content	<a href="https://www.youtube.com/watch?v=BciLqcUOIRO&amp;list=PLLy_2iUCG87CkrNdXME16BCptwGx1fl67&amp;index=3">https://www.youtube.com/watch?v=BciLqcUOIRO&amp;list=PLLy_2iUCG87CkrNdXME16BCptwGx1fl67&amp;index=3</a>
21	21	Biogeographically classification of India & Biodiversity at local national & global level	Lecture	Study material
22	22	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and optional values.	Lecture	Study material
23	23	Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.	Lecture	Study material
24	24	<b>QUIZ TEST 2</b>		Text Book
25	25	<b>Unit5-Environmental Pollution.</b> Air pollution- Sources , Effects and control	Video Content	<a href="https://www.youtube.com/watch?v=C62x3mCLkZ0&amp;list=PLNsppmbLKJ8KvS7zk13Y4NLj89Ea_YxYW&amp;index=3">https://www.youtube.com/watch?v=C62x3mCLkZ0&amp;list=PLNsppmbLKJ8KvS7zk13Y4NLj89Ea_YxYW&amp;index=3</a>
26	26	Water pollution- Sources , Effects and control	Lecture	Study material
27	27	Soil pollution- Sources , Effects and control	Lecture	Study material
28	28	Marine pollution- Sources , Effects and control	Lecture	Study material
29	29	Noise pollution- Sources , Effects and control	Lecture	Study material
30	30	Thermal pollution- Sources , Effects and control	Lecture	Study material
31	31	Nuclear hazards- Sources , Effects and control	Lecture	Study material
32	32	<b>PRACTICE TEST 2</b>		<b>Class Notes</b>
33	33	<b>Unit 6: Social issues and the Environment :</b> Form unsustainable to sustainable development & Urban problems related to energy.	Group Discussion	Text Book
34	34	Water conservation, rain water harvesting, water shed management.	Lecture	Study material
35	35	Resettlement and rehabilitation of people; its problems and concern.	Lecture	Study material
36	36	Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies.	Student Presentation	Text Book
37	37	Air (prevention and control of pollution) Act.	Lecture	Study material
38	38	Water (prevention and control of pollution) Act.& Public awareness	Lecture	Study material
39	39	Review class	Recap/ Summary	Class notes
40	40	<b>Human population and the Environment :</b> Population growth and variation among nations.	Video Content	<a href="https://www.youtube.com/watch?v=1liY6YIPHck">https://www.youtube.com/watch?v=1liY6YIPHck</a>
41	41	Population explosion- family welfare program.	Lecture	Study material
42	42	Environment and human health.	Lecture	Study material
43	43	Human rights & Value education	Video Content	<a href="https://www.youtube.com/watch?v=fAFPHbXBjmc">https://www.youtube.com/watch?v=fAFPHbXBjmc</a>
44	44	Role of information technology in environment and human health	Lecture	Study material
45	45	Review class	Recap/ Summary	Class Notes

Signature of Concern Teacher

Signature of H.O.D