



# GANDHI SCHOOL OF ENGINEERING

BHABANDHA, BERHAMPUR

BRANCH- CIVIL ENGINEERING

SEMESTER- 3RD

SUBJECT- Th5. ENVIRONMENTAL STUDIES

NAME OF THE FACULTY-ER. SWADHIN MUND

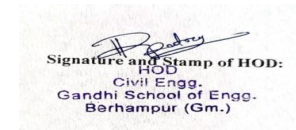
		Topic to be taken			Actual topic taken			
Sl. No	Topic/ Module	No. of period	Details of the topics	Date	Topic No.	Topic Name	Date	Remarks
1	The Multidisciplinary nature of environmental studies	4	Definition, scope and importance, Need for public awareness.	15.09.2022 - 21.09.2022	1	Definition, scope and importance, Need for public awareness.	16.09.2022 20.09.2022 21.09.2022 22.09.2022	

2	Natural Resources Renewable and non renewable resources:	12	<p>a) Natural resources and associated problems. •</p> <ul style="list-style-type: none"> <li>• Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining, dams and their effects on forests and tribalpeople.</li> <li>• Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam’s benefits and problems.</li> <li>• Mineral Resources: Use and exploitation, environmental effects of extracting and using mineralresources.</li> <li>• Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizers-pesticides problems, water logging, salinity,.</li> <li>• Energy Resources: Growing energy need, renewable and non renewable energy sources, use of alternate energy sources, case studies.</li> <li>• Land Resources: Land as a resource, land degradation, man induces landslides, soil erosion, anddesertification.</li> </ul> <p>b) Role of individual in conservation of natural resources.</p> <p>c) Equitable use of resources for sustainable life styles.</p>	<p>22.09.2022</p> <p>-</p> <p>14.10.2022</p>	2	<p>a) Natural resources and associated problems.</p> <ul style="list-style-type: none"> <li>• Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining, dams and their effects on forests and tribalpeople.</li> <li>• Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam’s benefits and problems.</li> <li>• Mineral Resources: Use and exploitation, environmental effects of extracting and using mineralresources.</li> <li>• Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizers- pesticides problems, water logging, salinity,.</li> <li>• Energy Resources: Growing energy need, renewable and non renewable energy sources, use of alternate energy sources, case studies.</li> <li>• Land Resources: Land as a resource, land degradation, man induces landslides, soil erosion, anddesertification.</li> </ul> <p>b) Role of individual in conservation of natural resources.</p> <p>c) Equitable use of resources for sustainable</p>	<p>23.09.2022</p> <p>27.09.2022</p> <p>28.09.2022</p> <p>29.09.2022</p> <p>30.09.2022</p> <p>11.10.2022</p> <p>12.10.2022</p> <p>13.10.2022</p> <p>14.10.2022</p>
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3	Systems	12	<ul style="list-style-type: none"> <li>• Concept of an eco system.</li> <li>• Structure and function of an eco system.</li> <li>• Producers, consumers, decomposers.</li> <li>• Energy flow in the eco systems.</li> <li>• Ecological succession.</li> <li>• Food chains, food webs and ecological pyramids.</li> <li>• Introduction, types, characteristic features, structure and function of the following eco system:</li> <li>• Forest ecosystem:</li> <li>• Aquatic eco systems (ponds, streams, lakes, rivers, oceans, estuaries).</li> </ul>	22.09.2022 - 14.10.2022	3	<ul style="list-style-type: none"> <li>• Concept of an eco system.</li> <li>• Structure and function of an eco system.</li> <li>• Producers, consumers, decomposers.</li> <li>• Energy flow in the eco systems.</li> <li>• Ecological succession.</li> <li>• Food chains, food webs and ecological pyramids.</li> <li>• Introduction, types, characteristic features, structure and function of the following eco system:</li> <li>• Forest ecosystem:</li> <li>• Aquatic eco systems (ponds, streams, lakes, rivers, oceans, estuaries).</li> </ul>	19.10.2022 20.10.2022 21.10.2022 26.10.2022 27.10.2022  28.10.2022  01.11.2022 02.11.2022	
4	: Biodiversity and it's Conservation	8	<ul style="list-style-type: none"> <li>• Introduction-Definition: genetics, species and ecosystem diversity.</li> <li>• Biogeographically classification of India.</li> <li>• Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and optinvalues.</li> <li>• Biodiversity at global, national and local level. • Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.</li> </ul>	22.09.2022 - 14.10.2022	4	<ul style="list-style-type: none"> <li>• Introduction-Definition: genetics, species and ecosystem diversity.</li> <li>• Biogeographically classification of India.</li> <li>• Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and optinvalues.</li> <li>• Biodiversity at global, national and local level.</li> <li>• Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.</li> </ul>	03.11.2022 04.11.2022 09.11.2022  10.11.2022 11.11.2022 15.11.2022 17.11.2022 18.11.2022	

5	Environmental Pollution.	18	<p>Definition Causes, effects and control measures of:</p> <p>a) Air pollution.  b) Water pollution.  c) Soil pollution  d) Marine pollution  e) Noise pollution.  f) Thermal pollution  g) Nuclear hazards. Solid waste Management: Causes, effects and control measures of urban and industrial wastes.  Role of an individual in prevention of pollution.  Disaster management: Floods, earth quake, cyclone and landslides.</p>	<p>17.11.2022  -  30.11.2023</p>	<p>5</p> <p>Definition Causes, effects and control measures of:</p> <p>a) Air pollution.  b) Water pollution.  c) Soil pollution  d) Marine pollution  e) Noise pollution.  f) Thermal pollution  g) Nuclear hazards. Solid waste Management: Causes, effects and control measures of urban and industrial wastes.  Role of an individual in prevention of pollution. Disaster management: Floods, earth quake, cyclone and landslides.</p>	<p>22.11.2022  24.11.2022  25.11.2022  02.12.2022  06.12.2022  13.12.2022  14.12.2022  15.12.2022  16.12.2022  20.12.2022  21.12.2022  22.12.2022</p>	
6	Social issues and the Environment	12	<ul style="list-style-type: none"> <li>• Form unsustainable to sustainable development.</li> <li>• Urban problems related to energy.</li> <li>• Water conservation, rain water harvesting, water shed management.</li> <li>• Resettlement and rehabilitation of people; its problems and concern.</li> <li>• Environmental ethics: issue and possible solutions.</li> <li>• Climatechange, globalwarming, acidrain, ozonelayerdepletion, nuclear accidents and holocaust, case studies.</li> <li>• Air (prevention and control of pollution) Act.</li> <li>• Water (prevention and control of pollution) Act.</li> <li>• Public awareness.</li> </ul>	<p>01.12.2022 -  13.12.2022</p>	<p>6</p> <ul style="list-style-type: none"> <li>• Form unsustainable to sustainable development.</li> <li>• Urban problems related to energy.</li> <li>• Water conservation, rain water harvesting, water shed management.</li> <li>• Resettlement and rehabilitation of people; its problems and concern.</li> <li>• Environmental ethics: issue and possible solutions.</li> <li>• Climatechange, globalwarming, acidrain, ozonelayerdepletion, nuclear accidents and holocaust, case studies.</li> <li>• Air (prevention and control of pollution) Act.</li> <li>• Water (prevention and control of pollution) Act.</li> <li>• Public awareness.</li> </ul>	<p>23.12.2022  03.01.2023  04.01.2023  05.01.2023  06.01.2023  10.06.2023</p>	

7	Human population and the environment	9	<ul style="list-style-type: none"> <li>• Population growth and variation among nations.</li> <li>• Population explosion- family welfare program.</li> <li>• Environment and humanhealth.</li> <li>• Human rights.</li> <li>• Value education</li> <li>• Role of information technology in environment and human health.</li> </ul>	14.12.2022 - 06.01.2022	7	<ul style="list-style-type: none"> <li>• Population growth and variation among nations.</li> <li>• Population explosion- family welfare program.</li> <li>• Environment and humanhealth.</li> <li>• Human rights.</li> <li>• Value education</li> <li>• Role of information technology in environment and human health.</li> </ul>	<p>11.01.2023</p> <p>12.01.2023</p> <p>13.01.2023</p> <p>19.01.2023</p> <p>20.01.2023</p>
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