

GOVT POLYTECHNIC MAYURBHANJ			
LESSON PLAN			
ACADEMIC YEAR 2021-22			
Discipline: Mechanical Engg.	Semester: 3rd sem	Name of the teaching Faculty: SAGAR KU. MOHAPATRA	
Subject: Environmental Studies	No of Days/ Week class allotted (4)	Semester: From date: 01/10/2021	To Date: 08/01/2022
MONTH	WEEK	CLASS DAY	TOPICS
OCTOBER	1st	5th	<b>Unit 1: The Multidisciplinary nature of environmental studies</b> Definition, scope and importance
	2nd	4th	Need for public awareness.
		5th	<b>Unit 2: Natural Resources, Renewable and non renewable resources:</b> Natural resources and associated problem
		5th	Forest resources: Use and over-exploitation, deforestation, case studies,
	4th	4th	Timber extraction mining, dams and their effects on forests and tribal people. Water resources: Use and over-utilization of surface and ground water
		5th	floods, drought, conflicts over water, dam's benefits and problems
		5th	Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources.
	5th	3rd	Food Resources: World food problems ,changes caused by agriculture
		4th	Overgrazing, effects of modern agriculture, fertilizers pesticides problems, water logging, salinity, Energy Resources: Growing energy need
		5th	renewable and non renewable energy sources, use of alternate energy sources, case studies.. Land Resources: Land as a resource ,land degradation ,man induces landslides, soil erosion, and desertification.
		5th	Role of individual in conservation of natural resources, Equitable use of resources for sustainable lifestyles.
	NOVEMBER	1st	3rd
5th			<b>Unit 3: Systems, Concept of an ecosystem</b>
2nd		3rd	Structure and function of an ecosystem. Producers, consumers, decomposers.
		4th	Energy flow in the ecosystems. Ecological succession.
		5th	Food chains, food web and ecological pyramids. Introduction, types, characteristic features, structure and function of the following ecosystem:
		5th	Forest ecosystem:
3rd		3rd	Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries
		4th	<b>Unit 4: Biodiversity and it's Conservation ;</b> Introduction-Definition: genetics, species
	3rd	ecosystem diversity.	

	4th	4th	Biogeographically classification of India
		5th	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and opt in values.
		5th	Biodiversity at global, national and local level.
DECEMBER	1st	3rd	Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.
		4th	<b>INTERNAL EXAM</b>
		5th	<b>Unit 5: Environmental Pollution. Definition</b> Causes, effects and control measures of: Air pollution.
		5th	Definition Causes, effects and control measures of: Water pollution.
	2nd	3rd	Soil pollution , Marine pollution, Noise pollution, Thermal pollution
		4th	Nuclear hazards. Solid waste Management: Causes, effects and control measures of urban and industrial wastes.
		5th	Role of an individual in prevention of pollution
		5th	Disaster management: Floods, earth quake, cyclone and landslides.
	3rd	3rd	<b>Unit 6: Social issues and the Environment.</b> Introduction
		4th	unsustainable to sustainable development
		5th	Urban problems related to energy
		5th	Water conservation, rain water harvesting, water shed management
	4th	3rd	Resettlement and rehabilitation of people; its problems and concern.
		4th	Environmental ethics: issue and possible solutions.
		5th	Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies.
		5th	Air (prevention and control of pollution) Act.
	5th	3rd	Water (prevention and control of pollution) Act
		4th	Public awareness.
		5th	<b>Unit 7: Human population and the environment.</b> Introduction
		5th	Population growth and variation among nations
JANUARY	2nd	3rd	Population explosion-family welfare program
		4th	Environment and human health.
		5th	Human rights. Value education ,Role of information technology in environment and human health.
		5th	<b>CLASS TEST-2</b>

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