



GOVT. POLYTECHNIC KORAPUT

ACADEMIC SESSION 2020-2021

SEMESTER- 3rd

BRANCH - CIVIL ENGINEERING

SUBJECT – ENVIRONMENTAL STUDIES

FACULTY NAME – SUCHITRA LENKA

Period	Module / Number	Topic to be covered
	UNIT-1	The Multidisciplinary nature of environmental studies
1		Definition Of Environmental Studies; introduction to environmental studies
2		Scope Of Environmental Studies
3		Importance Of Environmental Studies
4		Need for public awareness
	UNIT-2	Natural Resources Renewable and non renewable resources:
5		Forest resources: Use and over-exploitation, deforestation, case studies
6		Timber extraction mining, dams and their effects on forests and tribal people
7		Water resources: Use and over-utilization of surface and ground water, floods
8		Drought, conflicts over water, dam's benefits and problems
9		Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources
10		Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture
11		Fertilizers- pesticides problems, water logging, salinity
12		Energy Resources: Growing energy need, renewable and non- renewable energy sources, use of alternate energy sources, case studies.
13		Land Resources: Land as a resource, land degradation
14		OMR TEST 1
15		Man induces land slides, soil erosion, and desertification ,Role of individual in conservation of natural resources
16		Equitable use of resources for sustainable life styles
	UNIT-3	Systems:
17		Concept of an eco system.
18		Structure and function of an eco system
19		Producers, consumers, decomposers : definitions and their role in an ecosystem

20		Energy flow in the eco systems
21		Ecological succession
22		Food chains, food webs
23		ecological pyramids

24		Introduction, types, characteristic features Of Forest Ecosystem
25		Structure and Function Forest ecosystem:
26		Introduction and types of Aquatic eco systems
27		Characteristics of Aquatic eco systems, Structure and Function of Aquatic eco systems
28		OMR TEST 2
	UNIT-4	biodiversity and its conservation
29		Introduction-Definition Genetics, Species and Ecosystem diversity
30		Bio-geographical classification of India
31		Value of biodiversity: consumptive use, productive use
32		Social ethical, aesthetic values
33		Biodiversity at global, national and local level.
34		Threats to biodiversity: Habitats loss, Poaching of wild life man wildlife conflicts
35		DISCUSSIONS ON CHAPTERS COVERED
	UNIT-5	Environmental Pollution.
36		INTERNAL EXAMINATION
37		Definition, Causes& effects of Air Pollution ,Control measures of Air Pollution
38		Definition, Causes& effects of Water Pollution
39		Control measures of Water Pollution
40		Definition, Causes&effects of Soil Pollution
41		Control measures of Soil Pollution
42		DISCUSSIONS ON INTERNAL QUESTIONS AND DISTRIBUTION OF EVALUATED ANSWER SHEETS
43		Definition ,Causes & effects of Marine Pollution ,Control measures of Marine Pollution
44		Definition ,Causes& effects of Noise Pollution
45		Control measures of Noise Pollution
46		Definition, Causes& effects of Thermal Pollution
47		Control measures of Thermal Pollution
48		Definition, Causes,&effects of Nuclear Hazard
49		Control measures of Nuclear Hazard
50		Solid waste Management: Causes, effects and control measures of urban and industrial wastes
51		Role of an individual in prevention of pollution.
52		Disaster management: Floods, earth quake : precautionary measures to be taken during natural calamities , Cyclone and Land slides : precautionary measures to be taken during natural calamities

53		OMR TEST 3
	UNIT-6	Social issues and the Environment
54		Form unsustainable to sustainable development
55		Urban problems related to energy.
56		Importance of Water conservation
57		rain water harvesting, water shed management
58		Resettlement and rehabilitation of people; its problems and concern
59		Environmental ethics: issue and possible solutions. Climate change, global warming , acid rain, ozone layer depletion
60		DISCUSSIONS ON THE CHAPTERS COVERED
61		OMR TEST 4
62		nuclear accidents and holocaust, case studies.
63		Air (prevention and control of pollution) Act.
64		Water (prevention and control of pollution) Act
65		Public awareness
	UNIT-7	Human population and the environment
66		Population growth and variation among nations.
67		Population explosion- family welfare program
68		Environment and human health.
69		Human rights: Equity, Nutrition, health and human rights, Intellectual Property Rights
70		OMR TEST 5
71		Value educationEnvironmental Values ,
72		Valuing Nature, Valuing cultures
73		Social justice , Human heritage, Equitable use of Resources
74		Common Property Resources, Ecological degradation, Role of information technology in environment and human health
75		REVISION