GOVERNMENTPOLYTECHNIC, BARGARH
Department Of Electrical Engineering

Semester:3rd.DIPLOMA
Subject: ENVIRONMENTAL STUDIES
Branch : Civil Engineering

Lession:2024-25(WINTER)
No of Period:60 (4p/week)
Name of Faculty : GOURANGA BADHEI

Period	Topics to be covered
1	**The Multidisciplinary nature of environmental studies**:Definition, scope and importance.
2	Need for public awareness.
3	**Natural Resources** Forest resources: Use and over-exploitation, deforestation,
4	case studies, Timber extraction
5	Mining, dams and their effects on forests and tribal people.
6	Water resources: Use and over-utilization of surface and groundwater,
7	floods, drought
8	conflicts over water, dam's benefits and problem
9	Mineral Resources: Use and exploitation
10	Environmental effects of extracting and using mineral resources.
11	Food Resources: World food problems
12	changes caused by agriculture and over grazing
13	effects of modern agriculture, fertilizers- pesticides problems
14	water logging, salinity
15	Energy Resources: Growing energy need
16	renewable and non-renewable energy sources
17	Use of alternate energy sources, case studies.
18	Land Resources: Land as a resource, land degradation
19	Man induces landslides, soil erosion, and desertification.
20	Role of individual in conservation of natural resources
21	Equitable use of resources for sustainable life styles.
22	**Systems** Concept of an eco-system.
23	Structure and function of an eco-system. Producers, consumers, decomposers.
24	Energy flow in the eco systems. Ecological succession.
25	Food chains, Food webs and ecological pyramids.
26	Introduction, types, characteristic features, structure and function of the Forest ecosystem.
27	Introduction, types, characteristic features, structure and function of the Aquatic ecosystem (ponds, streams, lakes, rivers, oceans).
28	**Biodiversity & its conservation**

	Introduction-Definition: genetics, species and ecosystem diversity.
29	Bio-geographical classification of India.
30	Value of biodiversity: consumptive use, productive use, socialethical,
31	Aesthetic and option values.
32	Biodiversity at global, national and local level.
33	**Pollution** Definition Causes, effects and control measures of: AIRPOLLUTION
34	Definition Causes, effects and control measures of: SOIL & water POLLUTION
35	Definition Causes, effects and control measures of: MARINE POLLUTION
36	Definition Causes, effects and control measures of: NOISE POLLUTION
37	Definition Causes, effects and control measures of: THERMAL POLLUTION
38	Definition Causes, effects and control measures of: NUCLEAR POLLUTION
39	Solid waste Management: Causes, effects and control measures ofurban and industrial wastes.
40	Role of an individual in prevention of pollution.
41	Disaster management: Floods, earth quake, cyclone and landslides
42	**Social issues & environment** Form unsustainable to sustainable development.
43	Urban problems related to energy.
44	Water conservation, rain water harvesting, water shed management.
45	Resettlement and rehabilitation of people; its problems and concern.
46	Environmental ethics: issue and possible solutions.
47	Climate change, global warming, acid rain, ozone layer depletion,nuclear accidents and holocaust, case studies.
48	Water (prevention and control of pollution) Act.
49	Public awareness.
50	**Human population & the environment** Population growth and variation among nations.
51	Population explosion- family welfare program.
52	Environment and human health
53	Human rights Value education
54	Role of information technology in environment & human health
55	Doubt Clearance Class
56	Doubt Clearance Class
57	PYQ Discussion
58	PYQ Discussion
59	PYQ Discussion
60	PYQ Discussion

Signature of the Faculty

Signature of the HOD