

VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY, BURLA

Semester: 5th

LESSON PLAN

Subject: Environmental Engineering
Theory/Sessional

Session:

Branch/ Course: Civil Engineering/ B.Tech.

Name of the Faculty Member: Rakesh Roshan Dash

Period	Module/ Number	Topic to be covered	Remarks/ Sign. of Faculty Member
1	Module - I / 1	Quantity of water: Per capita demand, design period	
2	Module - I / 2	population forecast	
3	Module - I / 3	Population forecast, fluctuation in demand	
4	Module - I / 4	General requirement for water supply: Sources	
5	Module - I / 5	Types of intakes	
6	Module - I / 6	Pumping	
7	Module - I / 7	Transportation of water	
8	Module - I / 8	Quality of water: Physical characteristics	
9	Module - I / 9	Chemical characteristics	
10	Module - I / 10	Biological characteristics of water and their significance	
11	Module - I / 11	Necessity of treatment, water quality standards for various water uses	
12	Module - II / 1	Engineering system for water purification: Aeration	
13	Module - II / 2	Coagulation	
14	Module - II / 3	Flocculation	
15	Module - II / 4	Sedimentation	
16	Module - II / 5	Softening	
17	Module - II / 6	Filtration	
18	Module - II / 7	Disinfection	
19	Module - II / 8	Water distribution system	
20	Module - II / 9	Water distribution system	
21	Module - II / 10	Methods of treatment: Removal of color, tastes and odour control, algicid	
22	Module - II / 11	Removal of iron and manganese, fluoridations	
23	Module - III / 1	Generation and collection of wastewater: Sanitary, storm and	
24	Module - III / 2	Combined sewerage systems, Quantities of sanitary wastes and storm water	
25	Module - III / 3	Design of sewerage system	
26	Module - III / 4	Engineered system for wastewater treatment: Primary treatment	
27	Module - III / 5	Screening, Grit removal, Sedimentation and aided with coagulation	
28	Module - III / 6	Secondary treatment: Basis of microbiology, Growth and food utilization	
29	Module - III / 7	Suspended-culture systems	
30	Module - III / 8	Attached-culture systems	
31	Module - III / 9	Secondary clarification, Disinfections of effluents	
32	Module - III / 10	Sludge characteristics	
33	Module - III / 11	Sludge thickening	
34	Module - III / 12	Sludge disposal	
35	Module - IV / 1	Air pollution: Units of measurement, Sources of air pollutants	
36	Module - IV / 2	Classification of air pollutants	
37	Module - IV / 3	Influence of meteorological phenomena: Lapse rate and dispersion	
38	Module - IV / 4	Pressure systems and dispersion	
39	Module - IV / 5	Winds and dispersion, Moisture and dispersion	
40	Module - IV / 6	Gaussian dispersion equation	
41	Module - IV / 7	Determination of stack heights	
42	Module - IV / 8	Engg. systems for air pollution control: Gravitational settling chamber	
43	Module - IV / 9	Cyclone, ESP	
44	Module - IV / 10	Bag filter and scrubbers	
45	Module - IV / 11	National Ambient air quality standards	

Signature of Faculty Member:

Date:

Counter Signature of H.O.D.