ASIAN SCHOOL OF TECHNOLOGY, BHUBANESWAR

DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN

Discipline: Civil engineering	Semester : 3rd	No. of periods available: 51	Name of Teaching Faculty: Santosh Kumar Behera
Subject: Water Supply & Waste Water Engg	No. of Days/ per week class allotted : 4 periods per week		No. of weeks : 13
Week	Class Day		Topics to be covered
1st	1st	1	Necessity of treated water supply and historical development.
	2nd	1	Water requirements, per capita demand.
	3rd	1	Variation in demand, factors affecting demand.
	4th	1	Methods of forecasting population, Numerical problems.
2nd	5th	1	Problem practice
	6th	1	Surface sources, underground sources.
	7th	1	Infiltration gallery and Infiltration Well
	8th	1	Yield from a well, problem solving
3rd	9th	1	Doubt clearing class
	10th	1	Sinking of well, well component, well development, maintenance and well pump.
	11th	1	Impurities in water, harmful effects .
	12th	1	Analysis of water, water quality standards
4th	13th	1	Doubt clearing class
	14th	1	Intakes and pipe materials
	15th	1	Pipe joint, pipe laying and pipe corrosion
	16th	1	Doubt clearing class

5th	17th	1	Class Test
	18th	1	Flow diagram of water treatment system and treatment process
	19th	1	Plain sedimentation, sedimentation with coagulation
	20th	1	Filtration of water
6th	21st	1	Disinfection of water
	22nd	1	Miscellaneous treatment methods
	23rd	1	Chemical requirements, softening numerical problems
	24th	1	Types of distribution system, methods of supply
7th	25th	1	Maintenance and numerical problems on size of pipes.
	26th	1	Storage ,distribution system layout , loss and wastage
	27th	1	Doubt clearing class
	28th	1	Appurtenances in distribution system
8th	29th	1	w/s plumbing in building
	30th	1	Introduction to sanitary Engg. Aims, objectives and definition of terms.
	31st	1	System of collection of wastes
	32nd	1	Quantity of sanitary sewage and numerical problems.
9th	33rd	1	Computation of size of sewers and problem practice
	34th	1	Types of sewerage system , shape of sewer and sewer materials.
	35th	1	Quiz
	36th	1	Laying of sewer and sewer appurtenances.
10th	37th	1	Sewage characteristics
	38th	1	Analysis of sewage
	39th	1	C, N, S – cycle
	40	1	Doubt clearing class

11th	41st	1	Sewage disposal on land
	42nd	1	Sewage disposal by dilution
	43rd	1	Principle and flow diagram of sewage treatment
	44th	1	Primary treatment
12th	45th	1	Oxidation ditch
	46th	1	Trickling filter
	47th	1	Secondary treatment
	48th	1	Doubt clearing class (Trickling filter, secondary treatment)
13th	49th	1	Previous year question discussion (2020,2019) water supply
	50th	1	Previous year question discussion (2014,2013) waste water
	51st	1	Doubt clearing class (numerical related to population forecasting
	52nd	1	Doubt clearing class (numerical related to yield)