Specimen of lesson Plan

Name of the Faculty Ms. Sonia Saini
Discipline CIVIL ENGG.
Semester 4TH
Subject WATER SUPPLY AND WASTE WATER ENGINEERING
Lesson Plan Duration 15 weeks(from January, 2018 to April,2018)

Week		Theory		P
	Lecture Day	Topic (inculding assignment/test)	Practical Day	
1st	1st	WATER SUPPLY:- Introduction :-Necessity and brief description of water supply system	1st	To determi
	2nd	WATER SUPPLY:- Introduction :-Necessity and brief description of water supply system		
	3rd	Quantity of Water:- Water requirement,	2nd	To determin giv
	4th	Rate of demand and variation in rate of demand		
	5th	Fire fighting uses as per BIS standards (no numerical problems)		
2nd	6th	Fire fighting uses as per BIS standards (no numerical problems)	3rd	To determi
	7th	Population Forecasting		
	8th	Quality of Water:- Meaning of pure water and methods of analysis of water	4th	To perform ja
	9th	Physical, Chemical and bacteriological tests and their significance		
	10th	Standard of potable water as per Indian Standard		
3rd	11th	Maintenance of purity of water (small scale and large scale quantity)	5th	v
	12th	Water Treatment (brief introduction):- Sedimentation - purpose, types of sedimentation tanks		
	13th	Coagulation floculation - usual coagulation and their feeding	6th	v
	14th	Filtration - significance, types of filters, their suitability		
	15th	Revision		
4th	16th	Necessity of disinfection of water, forms of chlorination, break point chlorine,	7th	To determine
	17th	residual chlorine, application of chlorine.		

	18th	Flow diagram of different treatment units, functions of (i) Areation fountain (ii) mixer	8th	To determin
	19th	(iii) floculator, (iv) classifier,		
	20th	Assignment		
5th	21st	(v) slow and rapid sand filters (vi) chlorination chamber.	9th	To determine and tota
	22nd	Conveyance of Water:-Different types of pipes - cast iron, PVC, steel, asbestos cement, concrete and lead pipes		
	23rd	Their suitability and uses, types of joints in different types of pipes.	10th	v
	24th	Appurtenances: Sluice, air, reflux valves, relief valves, scour valves, bib cocks, stop cocks		
	25th	Revision		
6th	26th	fire hydrants, water meters their working and uses	11th	v
	27th	Distribution site: Requirement of distribution, minimum head and rate, methods of layout of distribution pipes		
	28th	Systems of water supply - Intermittent and continuous service reservoirs - types, necessity and accessories.	12th	To study a) Water me water supply c) Pipe valve supply ar
	29th	Wastage of water - preventive measures		
	30th	Maintenance of distribution system, Leakage detection		
7th	31st	Laying out Pipes:-Setting out alignment of pipes	13th	To study ar joining/thre Pipes, SW pip
	32nd	Excavation for laying of pipes and precautions to be taken in laying pipes in black cotton soil.		
	33rd	Handling, lowering beginning and jointing of pipes	14th	v
	34th	Testing of pipe lines		
	35th	Back filling, Use of boring rods		
8th	36th	Building Water Supply:-Connections to water main (practical aspect only)	15th	v
	37th	Water supply fixtures and installations and terminology related to plumbin		
	38th	Water supply fixtures and installations and terminology related to plumbin	16th	To demonst pipe
	39th	Revision		
	40th	Assignment		

9th	41st	WASTE WATER ENGINEERING:- Introduction, Purpose of sanitation, Necessity of systematic collection and disposal of waste	17th	To demonst pipe
	42nd	Definition of terms in sanitary engineering, Collection and conveyance of sewage		
	43rd	Conservancy and water carriage systems, their advantages and Disadvantage	18th	v
	44th	(a) Surface drains (only sketches) : various types, suitability		
	45th	(b) Types of sewage: Domestic, industrial, storm water and its seasonal variation		
10th	46th	Sewerage System:- Types of sewerage systems, materials for sewers	19th	v
	47th	their sizes and joints		
	48th	Appurtenance: Location, function and construction features	20th	Study of wate visiti
	49th	Manholes, drop manholes, tank hole, catch basin,		
	50th	inverted siphon, flushing tanks grease and oil traps, storm regulators, ventilating shafts		
11th	51st	Laying and Construction of Sewers:Setting out/alignment of sewers	21th	Study of wate visiti
	52nd	Excavations, checking the gradient with boning rods preparation of bedding,		
	53rd	handling and jointing testing and back filling of sewers/pipes.	22th	v
	54th	Revision		
	55th	Sewage characteristics:Properties of sewage and IS standards for analysis of sewage		
12th	56th	Physical, chemical and bacteriological parameters	23th	To test
	57th	Natural Methods of Sewerage Disposal:-General composition of sewage and disposal methods		
	58th	Disposal by dilution	24th	To test
	59th	Self purification of stream		
	60th	Disposal by land treatment		
13th	61st	Nuisance due to disposal	25th	v
	62nd	Sewage Treatment:-Meaning and principle of primary and secondary treatment and activated sludge process their flow diagram		
	63rd	Introduction and uses of screens, grit chambers,	26th	v
	64th	detritus tanks, skimming tanks, plainsedimentation tanks,		
	65th	primary clarifers, secondary clarifers,		

14th	66th	filters, control beds, intermittent sand filters, trickling filters,	27th	v
	67th	sludge treatment and disposal, oxidation ponds (Visit to a sewage treatment plant)		
	68th	Building Drainage:-Aims of building drainage and its requirements	28th	v
	69th	Building Drainage:-Aims of building drainage and its requirements		
	70th	Different sanitary fittings and installations		
15th	71st	Different sanitary fittings and installations	29th	v
	72nd	Traps, seals, causes of breaking seals		
	73rd	Traps, seals, causes of breaking seals	30th	v
	74th	Revision		
	75th	Assignment		