

Week	Theory		Topic Covered Date and Remarks		
	Lecture- Day	Topic (Including Assignment/Test)	Date	HOD	Director- Principal
1 st	1	HYDROLOGY: Hydrologic cycle, Precipitation: introduction, forms of precipitation			
	2	Types of precipitation, measurement of precipitation,			
	3	Selection of rain gauge station. Hyetograph and mass curve of rainfall,			
2 nd	4	Evaporation: Definition, factors affecting, measurement, evaporation control			
	5	Evaporation-transpiration, Infiltration. Definition, components of hydrographs,			
	6	Unit hydrograph, base flow separation, Prepositions of unit hydrograph- problems.			
3 rd	7	Types of Aquifers – Darcy's Law – Dupuit's Assumptions – Confined Aquifer – Unconfined Aquifer			
	8	Recuperation Test – Transmissibility – Specific Capacity – Pumping Test – Steady Flow Analysis Only			
	9	Soil-water relationship and irrigation methods: Soil-water relationship, root zone soil water			
4 th	10	Infiltration, consumptive use, field capacity, wilting point, available moisture in soil, Gross Command Area,			
	11	Culturable Command Area, intensity of irrigation, delta, base period, Kor depth, core period, frequency of irrigation,			
	12	Duty of water, relation between delta, duty and base period, irrigation requirement			
5 th	13	Methods of Irrigation-flooding methods, border strip method, check basin			
	14	Furrow method, assessment of irrigation water, sprinkler irrigation system.			
	15	Canal irrigation: Component of canal distribution system, alignment of channels, losses in irrigation channels			
6 th	16	Design discharge, silt theories and design of alluvial channels			
	17	Comparison of Kennedy's and Lacey's theories, canal section			
	18	Design procedure, Garrets and Lacey's diagrams.			
7 th		1st Minor Test			
8 th	19	Cross Drainage Works: Classification and their selection			
	20	Hydraulic Design Aspects of Aqueducts, Syphon Aqueducts, Super Passage			
	21	Canal Syphon and Level Crossing, Design of Canal Transitions			
9 th	22	Diversion Canal Head works: Various components and their functions			
	23	Layout plan, selection of site for diversion headworks,			
	24	Causes of failure of weir/barrages on permeable foundation			
10 th	25	Bligh's creep theory, Khosla's method of independent variables,			
	26	Use of Khosla's curves, various corrections			
	27	Regulation works: Canal falls-necessity and location, development of falls			
11 th	28	Design of cistern element, roughening devices			
	29	Design of Sarda type fall. Design of straight Glacis fall			
	30	Off-take alignment, Cross-Regulator and Distributary Head Regulators			
12 th	31	Devices to control silt entry into the off-taking channel			
	32	Devices to control silt entry into the off-taking channel			
	33	Silt Ejector, Canal Escapes			
13 th	34	Silt Ejector, Canal Escapes			
	35	Design of straight Glacis fall			
	36	Design of straight Glacis fall			
14 th		2nd Minor Test			
15 th	37	Dams: Design principles for gravity			
	38	Dams: Design principles for gravity dam			
	39	Dams: Design principles for gravity and earthen dams			