

# Department of Civil Engineering

III B.Tech II SEM, 2015-16 (A Section)

Water Resources Engineering G.ANIL KUMAR

PERIOD	DATE	Topic	UNIT	Teaching methodology	cumulative
7,8	5.1.16	Introduction to engineering hydrology and its applications	1	CR	2
1,5	6.1.16	Hydrologic cycle, types and forms of precipitation,	1	CR	4
7,8	19.1.16	rainfall measurement, types of rain gauges, computation of average rainfall over a basin, processing of rainfall data.	1	CR	6
1,5	20.1.16	Abstraction from rainfall-evaporation, factors affecting evaporation,	1	CR	8
1,5	27.12.16	measurement of evaporation-evapotranspiration-Infiltration,	1	CR	10
7,8	2.2.16	factors affecting infiltration, measurement of infiltration, infiltration indices.	1	CR	12
1,5	3.2.16	Runoff-components of runoff, factors affecting runoff,	1	CR	14
7,8	9.2.16	stream gauging, effective rainfall, separation of base flow.	1	CR	16
1,5	10.2.16	Unit Hydrograph, definition, and limitations of applications of Unit hydrograph,	2	CR	18
7,8	16.2.16	derivation of Unit Hydrograph, S-hydrograph, PROBLEM, IUH, Synthetic Unit Hydrograph. Design Discharge, Computation of design discharge-rational formula, SCS method	2	CR	20
1,5	17.2.16	flood frequency analysis-Gumbel's method, log pearson III method, basic concepts of flood routing-hydraulic and hydrologic routing, channel and reservoir routing.	2	CR	22
7,8	23.2.16	Ground water Occurrence, types of aquifers, aquifer parameters,	3	CR	24
1,5	24.2.17	Derivation of k for a aquifer	3	CR	26
7,8	1.3.17	porosity, specific yield, permeability, transmissivity and storage coefficient, types of wells, Darcy's law, radial flow to wells in confined and unconfined aquifers.	3	CR	28
1,5	2.3.17	Irrigation types	3	CR	30
7,8	8.3.17	Necessity and Importance of Irrigation	3	CR	32

1,5	9.3.17	advantages and ill effects of Irrigation, types of Irrigation, methods of application of Irrigation water	3	CR	34
7,8	15.3.17	Indian agricultural soils, methods of improving soil fertility	3	CR	36
1,5	16.3.16	Soil-water-plant relationship,	4	CR	38
1,5	23.3.16	vertical distribution of soil moisture	4	CR	40
7,8	29.3.16	consumptive use, estimation of consumptive use	4	CR	42
1,5	30.3.16	Duty and delta, factors affecting duty, depth and frequency of Irrigation, irrigation efficiencies.	4	CR	44
1,5	5.4.16	Soil moisture tension	4	CR	46
7,8	6.04.16	Classification of canals	5	CR	48
1,5	12.04.16	Classification of canals.	5	CR	50
1,5	13.04.16	design of Irrigation canals by Kennedy's , balancing depth of cutting, canal lining.	5	PPT	52
7,8	19.04.16	Lacey's theories,	5	PPT	54

NOTE: C.R- Class Room Teaching (Black board, PPT)

  
Signature