



# G H RAISONI COLLEGE OF ENGINEERING NAGPUR

(An Autonomous Institute affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur)

CRPF Gate No.3, Hingna Road, Digdoh Hills, Nagpur. Maharashtra-440016 (India)

## Course wise Teaching Plan for Session : Summer Term 2018

Course : Water Resource Engineering - I

Faculty : mpbhorkar - M P Bhorkar

Unit	Topic Code	Topic Covered	Date	Course	Section
1	1	Introduction to Engineering Hydrology, Hydrological Cycle, hydrological equation and brief description.	02/05/2018	BCEL215	A
1	2	Importance of temperature, wind and humidity in hydrology. Earth and its atmosphere and importance.	02/05/2018	BCEL215	A
1	3	Introduction & Formation of Precipitation, Types of Precipitation, Forms of Precipitation, Factors Affecting Precipitation	03/05/2018	BCEL215	A
1	4	Measurement of Precipitation (using rainguages & analytical methods), optimum no. of raingauge station	03/05/2018	BCEL215	A
1	5	Intensity-Duration-Frequency and Depth - Area- Duration Infiltration, Evaporation, Transpiration	05/05/2018	BCEL215	A
1	6	Estimation of Missing Precipitation Records, Raingauge Network	05/05/2018	BCEL215	A
1	7	Source components of runoff, Classification of Streams, Factors affecting runoff	07/05/2018	BCEL215	A
1	10	Types of Rain gauge and their brief description	07/05/2018	BCEL215	A
1	4	Factors affecting precipitation	09/05/2018	BCEL215	A
2	8	Numerical based on calculating discharge	09/05/2018	BCEL215	A
1	5	Infiltration	10/05/2018	BCEL215	A
2	9	Hydro graph Factors Affecting Hydro graph and its components,	10/05/2018	BCEL215	A
2	11	Numerical based on Hydrograph	12/05/2018	BCEL215	A
2	12	Infiltration, factors affecting Infiltration, Infiltration indices	12/05/2018	BCEL215	A
2	13	Measurement of Infiltration, Numerical based on Infiltration & Infiltration Indices	14/05/2018	BCEL215	A
2	14	Numerical based on Infiltration & Infiltration Indices	14/05/2018	BCEL215	A
3	15	Transpiration, Factors Affecting Transpiration, Measurement of Transpiration	16/05/2018	BCEL215	A



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3	16	Evapotranspiration, Factors Affecting Evapotranspiration & Its measurement	16/05/2018	BCEL215	A
3	17	Numerical based on Evaporation and Evapotranspiration	17/05/2018	BCEL215	A
3	18	Statistics in hydrological analysis, Probability and probability distribution	17/05/2018	BCEL215	A
4	19	Floods, Causes and effects, Factors affecting peak flows	19/05/2018	BCEL215	A
4	20	Flood routing and Flood forecasting, numericals	19/05/2018	BCEL215	A
4	21	Geo-hydrology, Occurrence and distribution of Groundwater	21/05/2018	BCEL215	A
4	22	Geo-hydrology, Occurrence and distribution of Groundwater	21/05/2018	BCEL215	A
4	23	Aquifer Parameters( Darcy's law), Numericals based on Parameter	23/05/2018	BCEL215	A
4	25	Ground Water Movement, Derivation of Steady Raidal Flow to a Well in an Unconfined Aquifer	23/05/2018	BCEL215	A
4	26	Numerical based on above	24/05/2018	BCEL215	A
4	42	ground water and aquifer description	24/05/2018	BCEL215	A
4	27	Derivation of Steady Raidal Flow to a Well in an confined Aquifer, Numerical	26/05/2018	BCEL215	A
4	28	Numerical based on above	26/05/2018	BCEL215	A
3	24	numerical on s-curve	28/05/2018	BCEL215	A
3	43	numericals on method of superposition	28/05/2018	BCEL215	A
4	29	Numerical based on above	30/05/2018	BCEL215	A
5	30	Aquifer Parameters (Porosity, Specific Yield, Specific Retention, Storage Coefficient, Permeability, Transmissivity)	30/05/2018	BCEL215	A
5	31	Recharge well method, sub-surface dams, waste water recharge, recharge by urban storm runoff, recharge through rain water harvesting	31/05/2018	BCEL215	A



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7	45	numerical on s-curve	31/05/2018	BCEL215	A
5	32	Recharge through rain water harvesting, Project Planning for water resources, Multipurpose projects,	02/06/2018	BCEL215	A
5	33	Inter basin water transfer and Inter state water disputes, Water resources planning through watershed management	02/06/2018	BCEL215	A
5	34	Inter basin water transfer and Inter state water disputes, Water resources planning through watershed management	04/06/2018	BCEL215	A
5	46	revision for CAE-3	04/06/2018	BCEL215	A
5	35	ground water recharge	06/06/2018	BCEL215	A
5	36	Numerical based on above	06/06/2018	BCEL215	A
6	37	Numerical based on above	07/06/2018	BCEL215	A
6	39	Revision	07/06/2018	BCEL215	A
6	38	Economic planning for domestic and industrial water supply.	09/06/2018	BCEL215	A
6	40	Flood routing and Flood forecasting, numericals, well hydraulics	09/06/2018	BCEL215	A