

PANIPAT INSTITUTE OF ENGINEERING AND TECHNOLOGY
PANIPAT
Department of Civil Engineering
LESSON PLAN

Name: - Mr. Lalit Kumar
Branch/Semester: - 8th SEM

Subject Name: - GWH
Subject Code: -418N

S.No.	Lecture No.	Topics to be covered
1.	L-1	Properties of Aquifers, Formation constants,
2.	L-2	Compressibility of aquifers,
3.	L-3	Dupit's assumptions.
4.	L-4	Unconfined flow with a recharge,
5.	L-5	Tile drain problem,
6.	L-6	Equation of motion for steady
7.	L-7	Unsteady ground water flow in isotropic homogeneous aquifers,
8.	L-8	Ground water exploration and methods of investigations.
9.	L-9	Ground water exploration and methods of investigations.
10.	L-10	Effect of boundaries
11.	L-11	Interference of water, leaky aquifers
12.	L-12	Thiem's equilibrium formula for unconfined
13.	L-13	Thiem's equilibrium formula for confined aquifers
14.	L-14	Determination of hydraulic properties of aquifers
15.	L-15	Partial penetration of an aquifer by a well
16.	L-16	Spherical flow in a well,
17.	L-17	Non equilibrium formula for aquifer (unsteady radial flows)

18.	L-18	Tubewells, optimum capacity
19.	L-19	Silting of tubewell
20.	L-20	Design of tubewells in different aquifers
21.	L-21	Tubewell types, parts, bore hole, strains
22.	L-22	Its types, well pipe, casing pipe, blind pipe
23.	L-23	Construction and working of tubewells, site selection
24.	L-24	Drilling operation, cable tool method
25.	L-25	Hydraulic method, Rotary
26.	L-26	Method and drilling fluids,
27.	L-27	Verticality and alignment of tubewells, gravel packing,
28.	L-28	Development of tubewells,
29.	L-29	Corrosion and failure of tubewells
30.	L-30	Sickness, in construction and Pumping equipment
31.	L-31	Hydraulic testing of pumps
32.	L-32	Considerations and methods
33.	L-33	Recharge techniques induced infiltration,
34.	L-34	Water spreading, flooding, basins
35.	L-35	Ditching, modification of natural channels
36.	L-36	Irrigation, recharge pits, shafts and recharge wells
37.	L-37	Considerations and methods

(COURSE INCHARGE)