

GOVERNMENT POLYTECHNIC, JAIPUR
DEPARTMENT OF CIVIL ENGINEERING
LESSON PLAN

Subject: Geotechnical Engineering Laboratory (CEPC-215)

Semester: III

Academic Session: Winter 2026

Duration: 01.07.2026 – 05.11.2026

Faculty: Sushree Souravi Rout

Week	Practical No.	Experiment / Activity
1	1	Introduction to Geotechnical Engineering Laboratory, laboratory safety rules, soil testing equipment and report writing format
1	2	Collection of disturbed and undisturbed soil samples, sample preparation and storage
2	3	Determination of Natural Moisture Content of Soil
2	4	Determination of Specific Gravity of Soil Solids
3	5	Grain Size Analysis by Sieve Analysis
3	6	Grain Size Analysis by Hydrometer Method
4	7	Determination of Liquid Limit
4	8	Determination of Plastic Limit and Plasticity Index
5	9	Determination of Shrinkage Limit
5	10	Soil Classification using Laboratory Test Results
6	11	Standard Proctor Compaction Test
6	12	Plotting Moisture–Density Curve and Determination of OMC & MDD
7	13	Constant Head Permeability Test
7	14	Falling Head Permeability Test
8	15	Direct Shear Test on Soil
8	16	Unconfined Compression Test
9	17	Demonstration of Triaxial Compression Test
9	18	Field Density Test (Sand Replacement/Core Cutter) – Demonstration
10	19	Laboratory Record Verification, Viva-Voce and Discussion of Test Results
10	20	Practical Examination / Model Test