

GOVERNMENT POLYTECHNIC, JAIPUR
DEPARTMENT OF CIVIL ENGINEERING
LESSON PLAN

Subject: Building Materials & Concrete Technology Laboratory (CEPC-217)

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 BMCT Laboratory, laboratory safety rules, equipment and report writing format
1	2	Identification of common building materials and their engineering applications
2	3	Field identification tests on cement
2	4	Determination of Standard Consistency of Cement (Vicat Apparatus)
3	5	Determination of Initial and Final Setting Time of Cement
3	6	Determination of Fineness of Cement (Sieve Method)
4	7	Determination of Specific Gravity of Cement
4	8	Sieve Analysis of Fine Aggregate
5	9	Sieve Analysis of Coarse Aggregate and Gradation Curve
5	10	Determination of Bulking of Sand
6	11	Determination of Specific Gravity and Water Absorption of Aggregate
6	12	Determination of Moisture Content of Aggregate
7	13	Slump Test on Fresh Concrete
7	14	Compaction Factor Test / Flow Table Test (Workability of Concrete)
8	15	Preparation of Concrete Mix (Nominal Mix)
8	16	Casting of Concrete Cube Specimens
9	17	Curing of Concrete Cubes and Laboratory Observations
9	18	Compressive Strength Test on Concrete Cubes using Compression Testing Machine (CTM)
10	19	Study Demonstration: Non-Destructive Testing of Concrete (Rebound Hammer / UPV, if available)
10	20	Practical Record Verification, Viva-Voce and Model Practical Examination