

CE507PC: GEOTECHNICAL ENGINEERING LAB**B.Tech. III Year I Sem.**

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Pre-Requisites: Soil Mechanics (Co-requisite)**Course Objectives:** To obtain index and engineering properties of locally available soils, and to understand the behavior of these soil under various loads.**Course Outcomes:** At the end of the course, the student will be able to Classify and evaluate the behavior of the soils subjected to various loads.**LIST OF EXPERIMENTS**

1. Atterberg Limits (Liquid Limit, Plastic Limit, and shrinkage limit)
2. a) Field density by core cutter method and
b) Field density by sand replacement method
3. Determination of Specific gravity of soil Grain size distribution by sieve analysis
4. Permeability of soil by constant and variable head test methods
5. Standard Proctor's Compaction Test
6. Determination of Coefficient of consolidation (square root time fitting method)
7. Unconfined compression test
8. Direct shear test
9. Vane shear test
10. Differential free swell index (DFSI) test

REFERENCE:

1. Measurement of Engineering Properties of Soils by. E. Saibaba Reddy & K. Rama Sastri, New Age International