

DEPARTMENT OF CIVIL ENGINEERING

SOIL MECHANICS LABORATORY

CE8511 (ODD Semester)

Regulations: R17

List of experiments recommended as per Anna University

1. DETERMINATION OF INDEX PROPERTIES

- a. Specific gravity of soil solids
- b. Grain size distribution – Sieve analysis
- c. Grain size distribution - Hydrometer analysis
- d. Liquid limit and Plastic limit tests
- e. Shrinkage limit and Differential free swell tests

2. DETERMINATION OF INSITU DENSITY AND COMPACTION CHARACTERISTICS

- a. Field density Test (Sand replacement method and core cutter method)
- b. Determination of moisture – density relationship using standard Proctor compaction test.
- c. Determination of relative density (Demonstration only)

3. DETERMINATION OF ENGINEERING PROPERTIES

- a. Permeability determination (constant head and falling head methods)
- b. One dimensional consolidation test (Determination of Co-efficient of consolidation only)
- c. Direct shear test in cohesionless soil
- d. Unconfined compression test in cohesive soil
- e. Laboratory vane shear test in cohesive soil
- f. Tri-axial compression test in cohesionless soil (Demonstration only)
- g. California Bearing Ratio Test

List of experiments beyond the Anna University

1. Determination of apparent opening sizes and permeability

