

SYLLABUS :-

Introduction, Formation of soils, index properties and classification of soils, Soil compaction, Proctor and modified compaction, field control of compaction, Effective stress, soil-water-system - surface tension and capillarity, Darcy's law, Permeability of soils, methods of determining coefficient of permeability, Seepage analysis, flow nets, piping, quick sand condition, Compressibility and consolidation of soils, Normally and over consolidated soil, determination of over consolidation pressure, time rate of consolidation, determination of coefficient of consolidation, Shear strength of soils, direct shear and tri-axial test, Mohr-Coulomb strength criterion, drained, consolidated undrained and drained test, pore pressures, Skempton's pore pressure coefficients, stability of slopes, factor of safety, limit equilibrium methods, ordinary method of slices and Bishop's modified method of slices, earth pressure theories, smooth and rough walls, inclined backfill, depth of tension crack.