REINFORCED CONCRETE STRUCTURES DESIGN AND DRAWING(Code no:A50121)

UNIT - I:

Concepts of RC. Design - Limit State method - Material Stress - Strain Curves - Safety factors - Characteristic values. Stress Block parameters - IS - 456 - 2000 - Working Stress Method.

Beams: Limit state analysis and design of singly reinforced, doubly reinforced, T and L beam sections.

UNIT - II:

Shear, Torsion and Bond: Limit state analysis and design of section for shear and torsion - concept of bond, anchorage and development length, I.S. code provisions. Design examples in simply supported and continuous beams, detailing Limit state design for serviceability for deflection, cracking and codal provision.

UNIT - III:

Design of Two-way slabs, one way slab, and continuous slab Using I S Coefficients, Cantilever slab / Canopy slab.

UNIT - IV:

Short and Long columns - axial loads, uniaxial and biaxial bending I S Code provisions.

UNIT - V:

Design of Footings - isolated (square, rectangular) and combined footings. Design of Stair case.