

DESIGN OF REINFORCED CONCRETE STRUCTURES

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Reinforced concrete (RC) structures, Loadings, analytical models for analysis and design of RC structures, Design Methodologies: Working Stress Method and Limit State Method; Behavior of RC members under flexure; Working stress design for common flexural members; Limit state design of beams and one-way slabs for flexure; Singly and doubly reinforced sections; Rectangular and flanged sections; Shear and torsion; Bond and anchorage; Short columns under axial compression, Short columns under axial compression with uni-axial bending, Short columns under axial compression with bi-axial bending; Slender columns; Deflection computation for RC beams, Creep strain; Limit state design of two-way slabs, Yield line theory; Types of footings; design of isolated / combined footing.