

SUBJECT NAME – STRUCTURE II

SUBJECT CODE – 3336204

FOCUS:

To give an insight into the structural behavior of columns and beams. To provide an introduction to design of reinforced concrete structures. Role of Structures in architecture should be taught.

CONTENTS:

- Concrete: Composition, Basics of mix design, water cement ration, strength, durability workability requirements.
- Relevance of RCC in Architectural practice Advantages of RCC over other conventional structural practices. Steel for RCC – Plain & Twisted bars, IS 456 code provisions.
- Working Stress method of design – Basic concept, types of loads, assumptions, calculation of MR for singly RC beam (only).
- Basic concepts of pre-stressed concrete, pre-stressing systems, materials, behavior of pre-stressed concrete beams and losses in pre-stress.
- Introduction to special structural form and basic structural concepts about: shells, folded plates domes, grid structures, flat slabs (RCC), space frames tensile structures and pneumatic structures (no problems to be solved).

SUGGESTED BOOKS

- RCC by H. J. Shah
- RCC by Bhavikatti
- RCC by Jain and Jaikrishna
- RCC by Ramamrutham
- RCC – design and practice by N Krishna Raju and RN Pranesh