

AMAR-17 DESIGN OF STRUCTURE-II

UNIT-1 DESIGN OF CONCRETE MEMBERS AND WORKING STRESS DESIGN OF BEAMS

- 1.1 Concept of Elastic method, Ultimate Load Method and Limit State Method
- 1.2 Advantages of Limit State Method over other methods.
- 1.3 Analysis and Design of singly and doubly reinforced rectangular and flanged beams for bending.

UNIT-2 LIMIT STATE DESIGN OF BEAMS

- 2.1 Analysis and design of singly and doubly reinforced rectangular and flanged beams for Bending
- 2.2 Design of Continuous beams using IS code co-efficient.

UNIT-3 LIMIT STATE DESIGN OF SLABS

- 3.1 Behavior of one way and two way slabs
- 3.2 Design of one way and two way slabs for various edge conditions
- 3.3 Corner effects.

UNIT-4 DESIGN OF CIRCULAR SLABS

- 4.1 Design of Simply supported and fixed
- 4.2 Circular slabs subjected to uniformly distributed loads.

UNIT-5 DESIGN OF STAIRCASE BY LIMIT STATE METHOD

- 5.1 Types of Staircases
- 5.2 Design of Dog Legged Staircase.

References Books:

1. P.Dayaratnam, "Design of Reinforced Concrete Structures", Oxford and IBH Publishing Co., 1983.
2. C. Sinha and S.K. Roy, "Fundamentals of Reinforced Concrete", S.Chand & Co., New Delhi, 1983.
3. Dr. B.C. Punmia, "Reinforced Concrete Structures", Vol, 1 & 2 Laxmi publication, Delhi, 2004