

**RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA, BHOPAL**

**New Scheme Based On AICTE Flexible Curricula**

**Civil Engineering, VII-Semester**

**Departmental Elective CE 702(D) Structural Design and Drawing (RCC-II)**

**Unit – I**

Design of Multistory Buildings - Sway and nonsway buildings, Shear walls and other bracing elements.

**Unit II**

Design of Earth Retaining Structures: Cantilever and counter fort types retaining walls.

**Unit - III**

Water Tanks: Tanks on ground and underground tanks: Square, rectangular, circular tanks, Overhead tanks: square, rectangular, circular & intze tanks.

**Unit – IV**

Design of Silos and Bunkers

**Unit - V**

T-beam & Slab bridges- for highway loading (IRC Loads). Prestressing concepts materials, systems of prestressing & losses Introduction to working & limit State Design.

Suggested Books: - 1. R.C.C. by O.P. Jain Vol. II

2. R.C.C. by B.C. Punmia

3. Essentials of Bridge engineering – D.J. Victor

4. Bridge Engineering – Ponnuswamy

5. Advanced R.C.C. Design by N.K. RAJU

6. N.Krishna Raju, Prestressed Concrete, Tata Mc Graw Hill, New Delhi.

7. Pre stresses concrete – T.Y. Lin