

CE 605 – Structural Design & Drawing – II (Steel)

Unit - I

Various loads and mechanism of the load transfer, partial load factors, structural properties of steel, Design of structural connections - Bolted, Rivetted and Welded connections.

Unit - II

Design of compression members, Tension members, Roof Trusses - Angular & Tubular, Lattice Girders.

Unit-III

Design of simple beams, Built-up beams, Plate girders and gantry girders.

Unit - IV

Effective length of columns, Design of columns-simple and compound, Lacings & battens. Design of footings for steel structures, Grillage foundation.

Unit - V

Design of Industrial building frames, multistory frames, Bracings for high rise structures, Design of transmission towers.

NOTE: - All the designs for strength and serviceability should strictly be as per the latest version of IS:800.

Reference Books :-

- i) Design of steel structures by Arya & Azmani Nemchand & Bros, Roorkee
- ii) Design of steel structures by P. Dayaratnam
- iii) Design of steel structures Vol. I & II by Ramchandra
- iv) Design of steel structures by L.S. Negi
- v) Design of steel structures by Ramammutham
- iv) Design of steel structures by Punmia