5CE116 Design of Steel Structures

L-T-P-Cr: 3-1-0-4

Theory: 1. Introduction to Design Philosphies: Working stress method, limit state method, LRFD method of Design Loads and Load Combinations, Introduction to Steel sections and Steel structures. 4 Lectures

2. Design of structural fasteners: rivets, bolts and welds, Simple connections, bracket connections. 5 Lectures

3. Design of tension members, lug angles. 5 Lectures

4. Design of compression members, laced and battened columns and column splices.

7 Lectures 5. Design of column bases & footing. 5 Lectures

6. Design of flexural members: rolled sections, built-up sections. 5 Lectures

7. Design of members subjected to axial load and bending moment. 5 Lectures

8. Design of Roof Trusses. 6 Lectures

Text Books: 1. S.K. Duggal, Limit State Design of Steel Structures 2nd Edition. Tata McGraw Hill, New Delhi. 2. S.S. Bhavikatti, Design of Steel Structures 3RD Edition. Tata McGraw Hill, New Delhi. 3. N. Subramanian, Design of Steel Structures 2nd Edition. Oxford University Press India. 4. Sairam, Design of Steel Structures 2nd Edition. Pearson.