

ASSIGNMENT-1 CONNECTIONS

Q: 1 Explain advantages and disadvantages of steel structures.

Q: 2 Write design consideration for heavy moment resisting bolted connection.

Q: 3 Explain following connection with neat sketches.

1. Beam to beam web connection
2. Beam to column flange seat angle connection
3. Moment resistant beam to column connections

Q: 4 What you understand by class 4.6 and class 8.8 bolts? Explain briefly.

Q: 5 What is stiffener angle? Write the detailed steps for design of stiffened welded seat Connection.

Q: 6 A beam ISLB-300 is connected to flange of column ISHB300 to transmit end reaction of 150kN due to factored loads. Design web angle connection using M20 bolts of 4.6 grade and steel Fe410.

Q: 7 Design a suitable web cleat connection between main beam ISWB 500 @ 95.2 kg/m and Secondary beam ISWB 400 @ 66.7kg/m connected on one side of the web of the main beam. Secondary beam has to transmit an end reaction of 200 kN , due to factored loads. Use 8.8 bolts of 20 mm dia, steel grade 410Mpa.