**BIJU PATNAIK INSTITUTE OF TECHNOLOGY MOTTO, PURI**

**(GOVERNMENT POLYTECHNIC, PURI)**

**CIVIL BRANCH, 6th SEMESTER**

**SUB-STRUCTURAL DESIGN-II**

1. Write down types of joints in bolted connection.

2.Write down the disadvantages of HSFG bolt.

3.What is edge & end distance?

4.Write down the load combinations of bolted connection.

5.Write down the different types of rolled sections.

6.Write down the advantages & disadvantages of steel structure.

7.Write down the assumptions in design of bearing bolts.

8.Find the efficiency of the lap joint to connect two 20 mm thickness plate with 06 nos of bolts. M20 bolts of grade 4.6 and Fe 410 plates are used. Pitch=60mm & e=30mm.width of plate=180mm.

9.Design a lap joint between the two plates each of width 120mm,if the thickness of one plate is 16mm & the other is 12mm.the joint has to transfer a design load of 160kn.The plates are of Fe410grade.Use bearing type bolts.

10. Write down the assumptions in design of bearing bolts.