

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- SEP- 2018

B.Tech 9TH Sem

COURSE CODE: Design of Steel Structures

MAX. MARKS: 15

COURSE NAME: 10B11CE611

COURSE CREDITS: 4

MAX. TIME: One Hr

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

Q1. Discuss failure of Riveted Joints with leveled diagram. What are the assumptions involved in the design of riveted joints. [5, CO1]

Q2. A single riveted double cover butt joint is used to connect two plates 16mm thick. The rivets used are power driven 20mm in diameter at a pitch of 60mm. Find out the safe load per pitch length and efficiency of the joint. [5, CO1]

Q3. A riveted boiler 2.5m in diameter is made with a double riveted cover butt joint. It is subjected to a fluid pressure of 2N/mm^2 . Design the longitudinal joints of the boiler. Assume $f_y = 250\text{ N/mm}^2$. [5, CO1]