

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT  
TEST -1 EXAMINATIONS-2022

B.Tech -VI Semester (Civil)

COURSE CODE: 18B11CE612

MAX. MARKS: 15

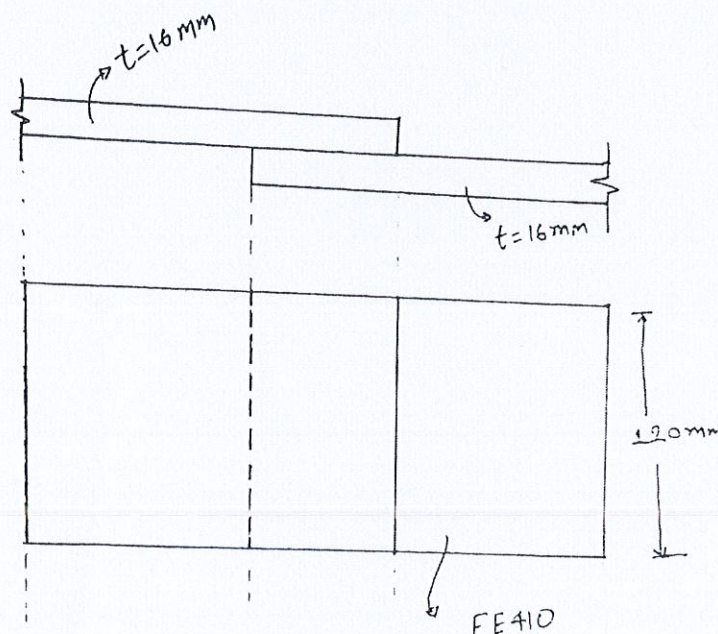
COURSE NAME: DESIGN OF STEEL STRUCTURES

COURSE CREDITS: 03

MAX. TIME: 1 Hour

*Note: All questions are compulsory. Marks are indicated against each question in square brackets.*

- Q1. What is the mass density and Poisson's ratio of steel? [1 Marks]
- Q2. What are disadvantages of steel? [2 Marks]
- Q3. Explain the hardness and toughness of the steel? [2 Marks]
- Q4. What is the Limit State Design (LSD)? What is its type? What will happen when LSD gets violated? [4 Marks]
- Q5. Design a lap joint between the two plates each of width 120mm, if the thicknesses of both plates are 16mm. The joint has to transfer a design load of 200 kN. The plates are of Fe410 grade. Use black bolts of grade 4.6 and diameter 20 mm. [6 Marks]



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