

4. Design the bolt for the bracket shown in figure 3. Working tensile stress is 80 MPa and shear stress is 45 MPa. 14

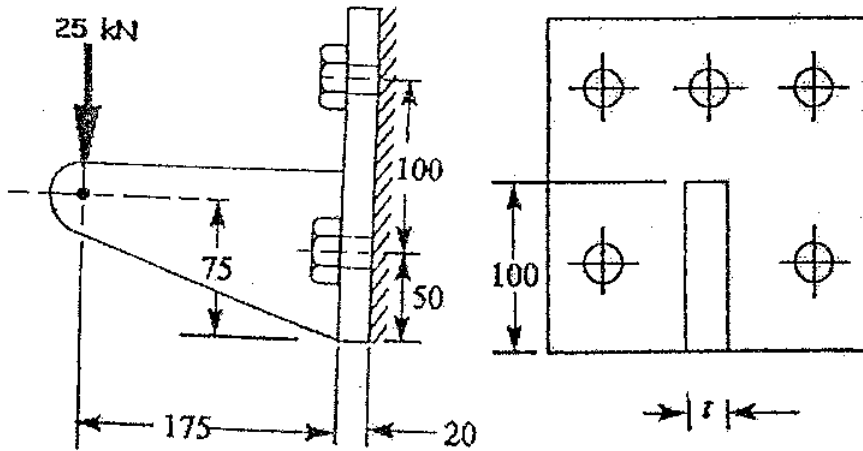


Figure-3

OR

Design a knuckle joint to connect two rods which transmits a tensile load 50 kN. Working stress 80 MPa and 40 MPa in compression, tension and shear respectively. 14

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Roll No .....

**AU/IP/ME/PR-305**

**B.E. III Semester**

Examination, June 2014

**Machine Drawing And Design**

*Time : Four Hours*

*Maximum Marks : 70*

*Note:* Total number of questions 4. Attempt one question from each unit. Attempt suitable data if necessary and mention the same proper justification.

**Unit - I**

1. a) What do you understand by tolerance? 4
- b) Show applications of different types of lines using a appropriate sketch. 10

OR

- c) Draw sectional front and top view of double riveted lap joint with zig-zag riveting for plate thickness of 12mm. 10

