



College of Engineering & Technology

Department: Mechanical Engineering
Lecturer: Dr. Rola Afify
Course Code: ME356

Marks: 15
Time: 3.00 - 4.00
Date: 25/11/2015

15

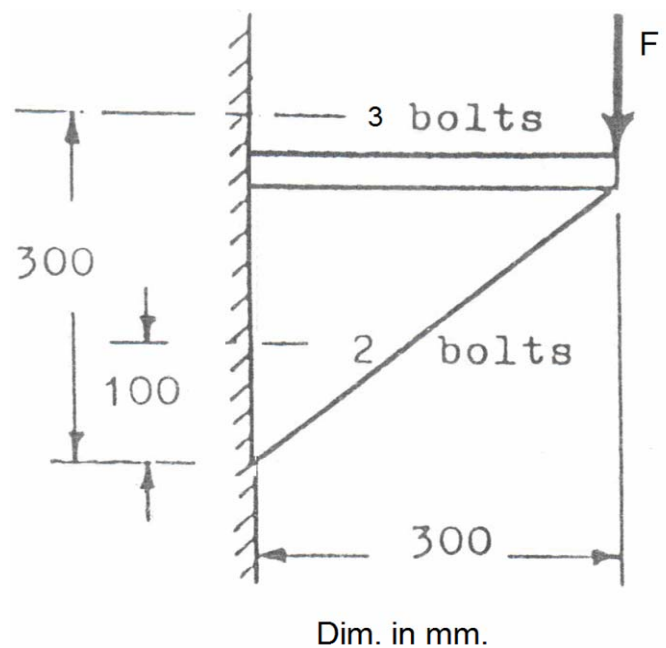
Name:

R.N.:

Answer the following questions: (one mark for good drawings)

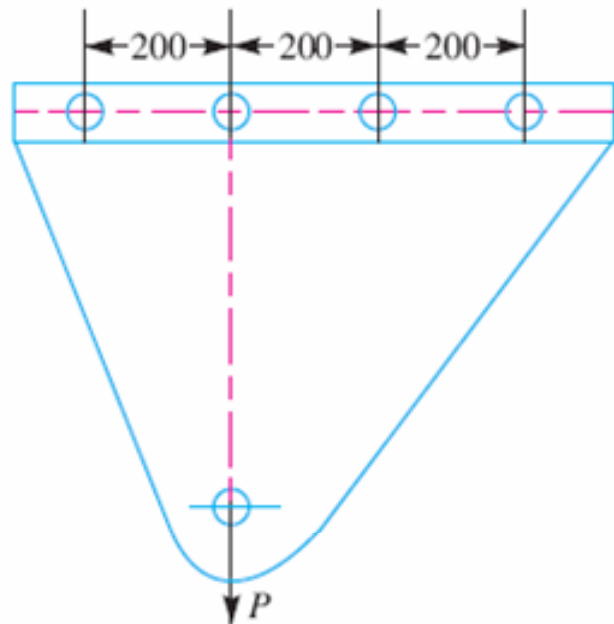
Question one (7 marks)

5M15 are used to secure the bracket, shown in figure, to the wall. If the bolts are made of steel having allowable stress 210 MPa, determine the maximum safe force that can be applied to the bracket.



Question two (7 marks)

Find the value of P for the joint shown in Figure based on a working shear stress of 100 MPa for the rivets. The four rivets are equal, each of 20 mm diameter.



All dimensions in mm.