College of Engineering & Technology

Department: Mechanical Engineering   Marks: 10
Lecturer: Dr. Rola Afify   Time: 11:30 - 12:10
Course Code: ME356   Date: 30/10/2016

10

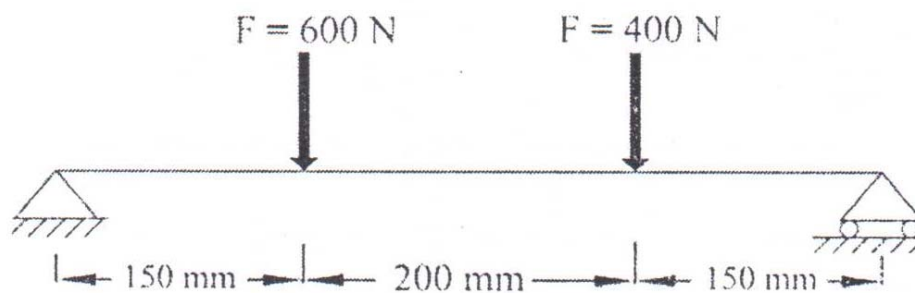Name: R.N.:

Answer the following questions:

Question one (5 marks)

For the 10 mm diameter beam shown draw the bending moment diagram and calculate the maximum bending stress.

Question two (5 marks)

Calculate the force required to punch a circular blank of 60 mm diameter in a plate of 5 mm thick. The ultimate shear stress of the plate is 350 N/mm^2.