



## College of Engineering & Technology

Department: Mechanical Engineering

Marks: 10

Lecturer: Dr. Rola Afify

Time: 3.00 - 4.00

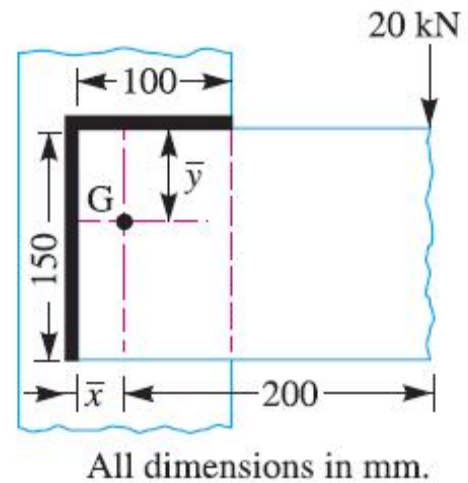
Course Code: ME356

Date: 27/11/2012

### Answer the following questions:

#### Question one (5 marks)

A welded joint, shown in figure, is subjected to an eccentric load of 20 kN. The welding is only on one side. Determine the leg dimension of the weld. Take permissible shear stress for the weld material as 80 MPa.



#### Question two (5 marks)

A solid circular shaft, 25 mm in diameter, is welded to support by means of a fillet weld as shown in figure. Determine the leg dimension of the weld if the permissible shear stress is 95 MPa.

