



College of Engineering & Technology

Department: Mechanical Engineering
Lecturer: Dr. Rola Afify
Course Code: ME362

Marks: 15
Time: 9:30 – 10:10
Date: 27/3/2016

15

Name:

R. N.:

Answer the following questions:

Question one (7 marks)

A) Define:

- Pressure:

- Pressure Head:

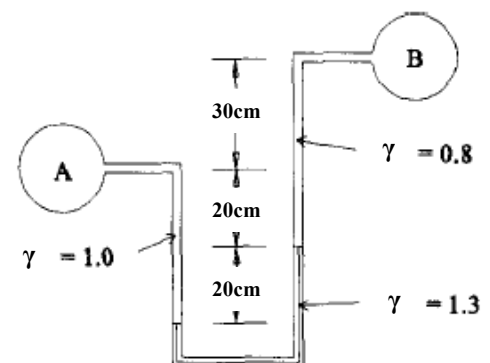
B) State the relation between absolute, atmospheric and gage pressure.

C) Prove that the pressure changes in the vertical direction

D) Inclined U-Tube Manometer measures pressures ranges (**higher than – lower than – the same as**) U-tube manometer

Question two (8 marks)

A) A manometer is connected between two pipelines, A and B shown in figure. What is the pressure difference between A and B expressed as meters of water?



B) Compare between:

- Piezometer and U-tube manometer with one leg enlarged
- Barometer and Bourdon tube gauge