

College of Engineering & Technology

Department: Mechanical Engineering Marks: 7 Lecturer: Dr. Rola Afify Time: ---

Course Code: ME362 Date: 3/12/2016

<u>Name</u>: <u>R. N.:</u>

Answer the following questions:

- 1. Define:
 - o Pressure.
 - o Streamline.
 - o Stream tube.
- 2. State the relation between absolute, atmospheric and gage pressure.
- 3. Prove:
 - o The pressure changes in the vertical direction
 - o The pressure is constant in the horizontal direction.
- 4. Compare between:
 - a) Pressure and head.
 - b) Piezometer and U-tube manometer.
 - c) Inclined-Tube Manometer and U-tube with one leg enlarged.
 - d) U-tube manometer and Inverted U-tube manometer.
 - e) Barometer and Bourdon tube gauge.
 - f) Ideal and real flow.
 - g) Steady and unsteady flow.
 - h) Uniform and Non-uniform flow.
 - i) One, two and three-dimensional flow.
 - j) Rotational & irrotational flow.
 - k) Laminar, Transient and Turbulent flow.
- 5. Discuss the function of:
 - o Pressure Transducer (Electrical Measuring Device).
 - o Application of Pascal Law.

Good Luck 1/1 Dr. Rola Afify