**BBDNITM**

**MECHANICAL DEPARTMENT**

**SESSION(2018-19)**

**Subject- Fluid Mechanics [ RCE-303]**

**Assignment no. 1**

1. Define viscosity via Newton law of viscosity?
2. What is the difference static and dynamic viscosity? State their units of measurements?
3. Define surface tension & atmospheric pressure ; derive its relation with pressure inside a soap bubble?
4. State &prove Pascal’s law?
5. Explain how would you find the resultant pressure on curved surface?
6. Derive the expression for Meta centric height of floating body?
7. Derive the pressure variation for fluid at rest?
8. Find the minimum size of glass tube that can be used to measure water level if the capillary rise in the tube is limited to 2mm.consider surface tension of water in contact with air as 0.073575N/m?