

## QUIZ on Lecture P1\_Wk3\_L1

1. The Young-Laplace equation when applied to a spherically-shaped liquid drop indicates
  - a) The pressure inside the drop is the same as the pressure outside the drop
  - b) The pressure inside the drop is larger than the pressure outside the drop
  - c) The pressure inside the drop is smaller than the pressure outside the drop
  - d) The pressure inside the drop does not have a constant value
2. Under ambient conditions with non-zero relative humidity, most surfaces are coated with a thin layer of
  - a) oxides
  - b) nitrides
  - c) sulfides
  - d) water molecules
3. If two liquids have different vapor pressures, the one with the higher vapor pressures usually will
  - a) evaporate faster than the liquid with the lower vapor pressure
  - b) evaporate slower than the liquid with the lower vapor pressure
  - c) evaporate at the same rate as the liquid with the lower vapor pressure
  - d) neither liquid will ever evaporate
4. When a water bridge forms between a tip and a substrate, the force required to remove the tip from the substrate
  - a) increases
  - b) remains the same as the lift-off force measured under 0% relative humidity
  - c) decreases
  - d) goes to zero