Jashore University of Science and Technology
B.Sc. Engineering in Petroleum and Mining
Second semester of First year
Course no.: PHY 1201
Course title: Physics (Properties of Matters)
Assignment no.: 03

Last date of submission: January 29, 2021

1. Discuss the method of determining the elastic constants Y, η and σ by Searle's method.

2. State and prove the Bernoulli's theorem of fluid motion.

3. Discuss Poiseuille's method of determining the coefficient of viscosity of a liquid.

4. Define surface tension and surface energy. Explain surface tension on the basis of molecular theory of matter.

5. Derive an expression for the excess of pressure inside a spherical liquid drop.