

## **FLUID DYNAMICS- ASSIGNMENT FOR UNIT-V**

**ANSWER ALL THE QUESTIONS**

**DATE OF SUBMISSION 24.04.2020**

1. Discuss the stress components in a viscous flow.
2. What are normal, shearing and principle stresses.
3. Derive the relation between stresses and the rate of strain.
4. Explain the properties of rate of strain quadratic.
5. Explain the translation motion of a fluid element.
6. Define Reynold's number and indicate its significance.
7. Derive Navier -Stokes equation of motion for a viscous fluid.
8. Derive Navier -Stokes equation of motion for an incompressible fluid.

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