1. What is a pathline, streamline and a streakline. Explain verbally and analytically, use sketches when proper (35,36,37)

2. Provide a detailed explanation of the Lagrangian description and Eulerian description of Fluid mechanics problems (27,33)

3. What is a substantial derivative. Provide a detailed engineering interpretation. (38)

4. Describe the general fluid motion as a superposition of

   translation
   solid body rotation
   and
   deformation

   (43,46,51)

5. What is strain rate tensor. (54)