Mechanical Properties of Fluids

The "Mechanical Properties of Fluids" chapter in the CBSE textbook covers the following main topics:

1. **Introduction**
    - Overview of fluids, distinguishing features between solids and fluids.
    - Explanation of fluid behavior and compressibility differences between gases and liquids.

2. **Pressure**
    - Definition of pressure and its significance.
    - Explanation of how pressure is exerted by fluids, including atmospheric pressure.

3. **Streamline Flow**
    - Concept of streamline or laminar flow and turbulent flow.
    - Reynolds number and its role in determining the flow type.

4. **Bernoulli's Principle**
    - Explanation of Bernoulli's theorem and its applications.
    - Practical examples and the role of energy conservation in fluid flow.

5. **Viscosity**
    - Introduction to viscosity and factors affecting it.
    - Stokes' law and its applications, including terminal velocity and viscous force.

6. **Surface Tension**
    - Definition of surface tension and the molecular basis of surface forces.
    - Concepts like capillarity, contact angle, and applications of surface tension.