1. The property of a material body by virtue of which it regains its original shape & size is called its elasticity.

2. A solid body in which deformation is zero or small or negligible.

3. After applying deforming force, the configuration of body is changed by changing its original position leading to internal restoring force acting per unit area called stress. SI unit of stress is N m^{-2}.

4. If restoring force developed is perpendicular to the cross-sectional area, then the corresponding stress is known as longitudinal stress.

5. Shear stress is a vector quantity because it has both magnitude and direction opposite to the pair of force acting on opposite side of a body.

6. Shearing strain is defined as the angular change between two perpendicular lines of an element.

7. Longitudinal strain, $\varepsilon_L = \dfrac{\text{Chagne in length}}{\text{Original length}} = \dfrac{\Delta L}{L}$

8. Hooke's law states that within the elastic limit stress is proportional to strain, $i.e.,$

Stress $\propto$ strain

or stress = $\varepsilon \times$ strain, where ε is proportionality constant called modulus of elasticity.

9. Bulk modulus is defined as proportion of volumetric stress related to the volumetric strain for any material.

10. Shear modulus, $G = \dfrac{F\ell}{A\Delta\ell}$

where, G is shear modulus or modulus of rigidity, A is area over which force acts and ℓ is the initial length.

11. The ratio of the lateral strain to the longitudinal strain is called Poisson's ratio. It has no unit.

12. The breaking stress for a wire of unit cross section is called tensile strength.