# THEORY of STRUCTURE

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Lesson : 1

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# Chapter:1
# Shear Force and Bending Moment of Beam

- **Shearing forces** are unaligned forces

  pushing one part of a body in one specific direction, and another part of the body in the opposite direction.

- A **bending moment** is the reaction induced in a structural element when an external force or moment is applied to the element, causing the element to bend. The most common or simplest structural element subjected to bending moments is the beam.

# Shear Force and Bending Moment of Beam

- TYPES OF BEAMS : The following are the important types of beams:
- 1. Cantilever beam
- 2. Simply supported beam
- 3. Overhanging beam
- 4. Fixed beams and
- 5. Continuous beam.

# Example of SFD & BMD

## Shear Force & Bending Moment Diagram