

## UNIT I - PRINCIPLES OF CONSTRUCTION

### Topic - 1: Structural systems: Load Bearing Structure, Framed Structure

Load Bearing Structure	Framed Structure
<b>Construction Type:</b> The walls bear the weight of the structure, including floors and roof.	<b>Construction Type:</b> The structure's load is carried by a skeleton or frame, usually made of steel or reinforced concrete.
<b>Materials:</b> Typically constructed with bricks or stones.	<b>Materials:</b> Uses steel or reinforced concrete for the frame, with non-load-bearing walls (curtain walls).
<b>Load Distribution:</b> Load is distributed directly through the walls to the foundation.	<b>Load Distribution:</b> Load is transferred through beams and columns to the foundation.
<b>Flexibility:</b> Less flexible in terms of design and layout changes.	<b>Flexibility:</b> More flexible, allowing for open floor plans and easier modifications.
<b>Construction Speed:</b> Generally slower and labor-intensive.	<b>Construction Speed:</b> Faster due to the prefabrication of materials and simpler assembly.
<b>Cost:</b> Typically lower initial cost but may have higher maintenance costs over time.	<b>Cost:</b> Typically higher initial cost but can offer long-term savings and greater durability.
<b>Height Limitation:</b> Suitable for low-rise buildings (up to 3-4 stories).	<b>Height Limitation:</b> Suitable for high-rise buildings.

