



# UNIT I - PRINCIPLES OF CONSTRUCTION

## Puzzle 1

### Puzzle: Identify the Structure

**Instructions:** Below are descriptions of different scenarios related to building structures. For each scenario, identify whether the structure is a **Load-Bearing Structure** or a **Framed Structure**. Write "L" for Load-Bearing and "F" for Framed.

1. **Scenario 1:** A two-story residential building where the walls carry the entire weight of the floors and roof above them.
2. **Scenario 2:** A skyscraper with multiple floors, where the weight of the floors is supported by a network of steel beams and columns, allowing for large windows and open spaces.
3. **Scenario 3:** A small, single-story house built with thick brick walls that support the roof without needing internal columns or beams.
4. **Scenario 4:** A modern office building that has large open spaces on each floor, with the weight of the floors and roof carried by steel columns and beams rather than the walls.
5. **Scenario 5:** An ancient stone temple where the walls are thick and massive, directly bearing the load of the roof and upper structure.
6. **Scenario 6:** A contemporary apartment building with thin walls made possible by a structural framework of reinforced concrete columns and beams.
7. **Scenario 7:** A rural farmhouse built entirely of brick, where the walls are thick and support the wooden roof structure.
8. **Scenario 8:** A sports stadium with a roof supported by a steel framework, allowing for unobstructed views and wide-open spaces below.