



SNS COLLEGE OF TECHNOLOGY



AN AUTONOMOUS INSTITUTION

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COIMBATORE

DEPARTMENT OF CIVIL ENGINEERING

19GET102 – BASIC CIVIL AND MECHANICAL ENGINEERING

I YEAR / I SEMESTER

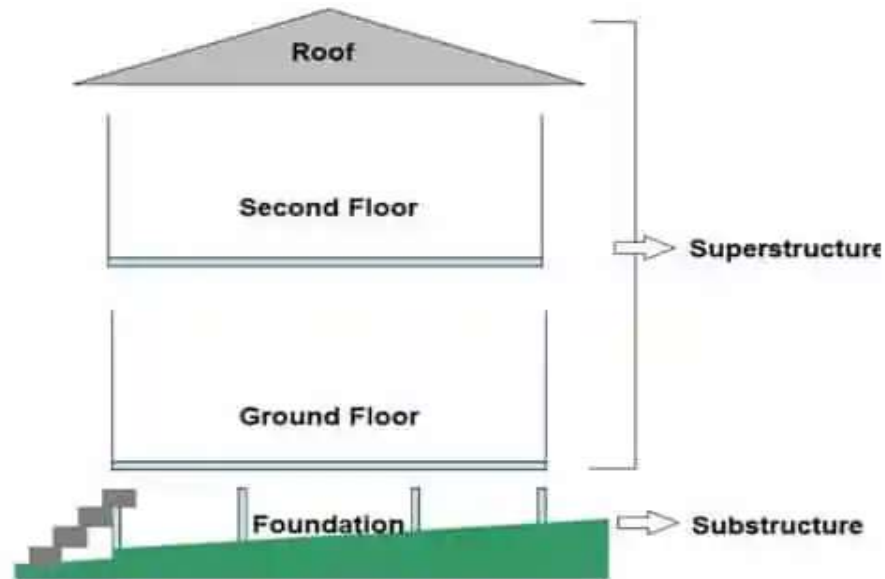
Unit 1 : Civil Engineering Materials and Surveying

Topic : SUB STRUCTURE-TYPES OF FOUNDATION



Super Structure

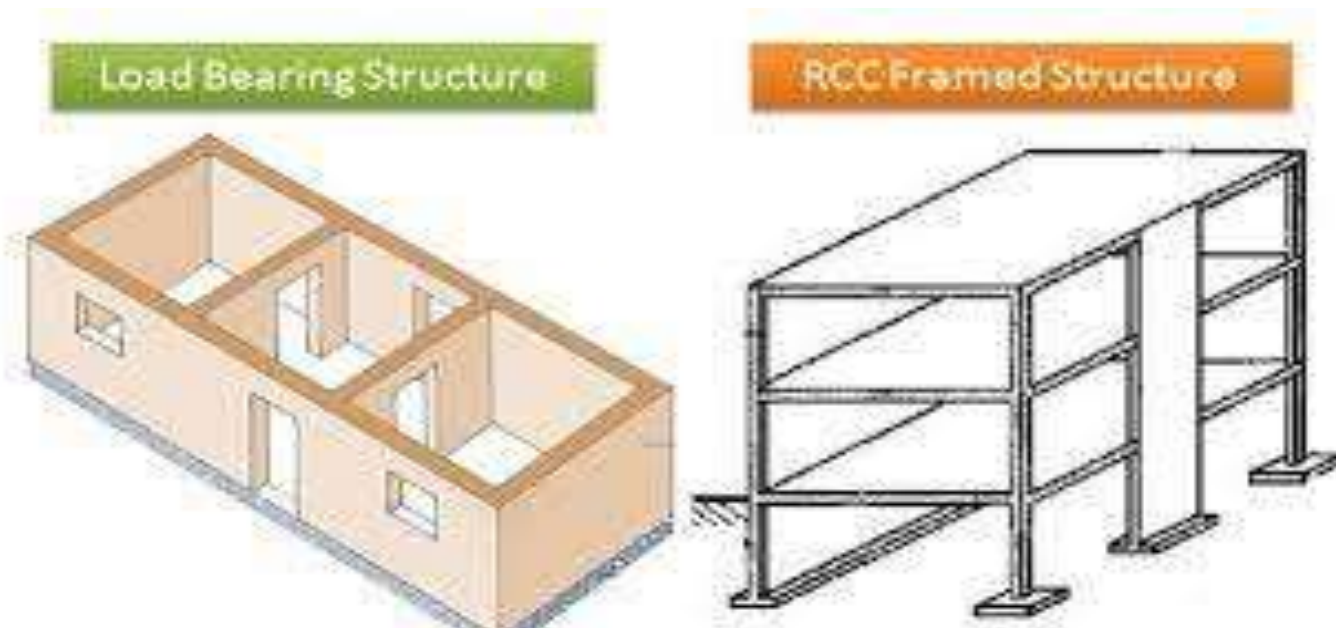
The superstructure of a building is where people will spend most of their time. This area includes the first and second floors inside a home and any number of floors in larger buildings. The superstructure includes beams, columns, finishes, windows, doors, the roof, floors, and anything else.





TYPES OF STRUCTURES

- ❑ Load Bearing Structures
- ❑ Framed Structures.





LOAD BEARING STRUCTURES

In this type of structure the load on the structure is transferred vertically downward through walls. Loads from roof and floors gets transferred to wall and then wall has to transfer these loads as well as self-weight. Such constructions are used in residential buildings where dimension of rooms is less. Residential buildings up to ground 2 floors can be built economically with such structures.

- ✓ Cost is less.
- ✓ Suitable up to three stories.
- ✓ Walls are thicker and hence floor area is reduced.
- ✓ Slow construction.
- ✓ Not possible to alter the position of walls, after the construction.
- ✓ Resistance to earthquake is poor.



FRAMED STRUCTURES:

In this type of structures a frame work of columns, beams and floors are built first. Then walls are built to portion the living area. The walls are subjected to self-weight only. This type of super structures are required when number of stories in a building is more and also when larger areas are to be covered free from walls.

- ❖ Cost is more.
- ❖ Suitable for any number of stories.
- ❖ Walls are thinner and hence more floor area available for use.
- ❖ Speedy construction.
- ❖ Position of walls may be changed, whenever necessary.
- ❖ Resistance to earthquake forces is good.



Thank You!!