# FRAMED STRUCTURE (Beam & Column)







#### Advantages

- 1. Provide freedom in large space areas while providing strong resistane and economy efficiency
- 2. Light and easy to handle
- 3. column free, offering flexibility and adaptability
- 4. Can be precast
- 5. Resistant to wind, water, rodents, and insects
- 6. Can be cast into any shape, in anywhere

# Disadvantages

- 1. Cause sever damage under strong earthquake
- 2. Use a great deal of cost and time to install. (cost for concrete and steel)

# **BEARING WALL STRUCTURE**





### Advantages

- 1. Easy house keeping
- 2. Speed in erecting and dismantling forms
- 3. Fire resistance
- 4. Earthquake resistance

#### Disadvantages

- 1. High density of wall
- 2. Restrict in bigger spacious
- 3. Much heavier

#### TRUSS STRUCTURE







## Advantages

- 1. Can be installed quickly
- 2. Better distribute the weight to outer walls
- 3. Fewer materials
- 4. Increased span
- 5. The triangle shape offer the path for the installation of HVAC, electric and other utility applications

## Disadvantages

- 1. Not used in every roof structure
- 2. Take up too much space

#### RIBBED STRUCTURE





### Advantages

- 1. Simple Design
- 2. Attractive and decorative apprearance
- 3. Increased span

# Disadvantages

- 1. Not used in every roof structure
- 2. Use a great deal of time to install
- 3. don't resist to shake

# SHELL STRUCTURE







# Advantages

- 1. Simple Design
- 2. More strenths compared with other structures
- 3. Economical in constructions
- 4. Attractive and decorative apprearance

#### Disadvantages

- 1. Cost more
- 2. The formation of centering of shell is very high
- 3. Cost of labour is very high

# **CATENARY STRUCTURE**







#### Advantages

- 1. Column free, more flexible
- 2. More strenths compared with other structures
- 3.Increased span
- 4. Attractive and decorative apprearance
- 5. More stable

# Disadvantages

- 1. Not used in every roof structure
- 2. Take up too much space