Roof
Types of roof structure

- Pitch roof
- Flat roof
- Space frame
- Roof shell
- Folded plate
- Membrane
A mono-pitched roof structure

A pitched roof

A lean-to roof structure

walls
Flat roof Advantages

- Construction
- Cost
- Fire proof making
- Stability
- Appearance
- False ceiling
- Upper part
Flat roof Disadvantages

- Not for long span
- Cracks
- Pockets of water
- Leakage, Trace and rectification
- Heavyrain
- Progress
PITCHED ROOF: TIMBER STEEL - truss - truss

Truss built as from individual members

Truss fabricated from factory

Gang nails

Whole roof structure built from steel

Truss fabricated from factory
Roof Coverings

- Thatch
- Shingles
- Patent Tiles
- Trafford Asbestos Cement tiles
- Eternite slates
- Corrugated Galvanized Iron Sheets
- Asbestos Cement corrugated sheets
Comparision

- Non breakable
- Handling
- Thin, Weight
- Cost
- Corrosion
- Sound proof
- Fire resistance
- Acid, Fumes
- Climate
- Appearance
- Possibility of damage
Placement of roof clay tiles as seen from below
Roof components

- ridge flashing
- ridge
- roof sheathing
- roof battens at 900 ctrs
- rafters at 900 ctrs
- under purlin
- collar tie
- wind brace
- prop
- hanging beam
- eaves overhang
- ceiling joists at 450 ctrs
  with ceiling battens running the opposite way at 450 ctrs
- internal wall
SECTION OF ROOF STRUCTURE

PITCHED ROOF

Finishes:
Clay tiles or
Cement tiles
Metal decking

Waterproofing
layer and
insulation

Timber batten

Ceiling
Finishes:
- Clay tiles or
- Cement tiles
- Metal decking

Waterproofing layer

Timber batten

Insulation layer

Ceiling
Roof finishes – steep roof

- Asphalt shingles – mostly of petroleum
- Slate-quarried stone and concrete tiles
- Metal roofing materials
2. Flat roof

- A roof is designated as flat if its slope is less than ten degrees.
- Flat roofs have traditionally been used in hot climates where water accumulation is not a problem.
- They were generally unknown in northern climates before the end of the last century.
4. ROOF SHELL
5. FOLDED PLATE ROOF
6. MEMBRANE