FAQs

1. What are the design recommendations of Hot and dry climate?

- Architects main aim is to avoid hot sun as far as possible.
- To capture as much cool air as possible.
- To provide protection from dust storms.
- External look is almost dead to avoid sun,
- Exterior is light in colour again to avoid absorption of heat.
- Surface area exposed to sun is minimum.
- Units are embedded deep into ground.
- Thicker mud walls act as good insulating materials.
- Smaller size of windows limits glare of solar radiations.
- Streets are narrow.
- Units are very closely placed.

2. What improvements can be done for roof in an hot and dry climate?

- Roof should be insulated from hot solar radiations.
- Thicker insulating materials should be used for this.
- A light colored or totally white terrace surface will reduce effect of hot solar radiations.
- Roofs should be made higher so that radiations from ceiling is less harsh and there is enough space for hot dissipated air.

3. Mention few heat loss resisting architectural specifications for a cold climate

- Decrease the exposed surface area of the building
- Using materials that heat up fast but release heat slowly.
- Providing buffer spaces between the living area and the outside
- Decreasing the rate of ventilation inside the building

4. What factors can help in increase heat gain?

- Avoiding excessive shading
- Utilising the heat from appliances

- Trapping the heat from the sun

5. What are the orientation and plan form factors to be considered to design in a cold climate ?

1. Buildings must be compact with small surface to volume ratios to reduce heat loss.
2. Windows should face south to facilitate direct gain
3. The north side of the building should be well-insulated
4. Living areas can be located on the southern side while utility areas such as stores can be on the northern side.
5. Air-lock lobbies at the entrance and exit points of the building reduce heat loss
6. Heat generated by appliances in rooms such as kitchens may be used to heat the other parts of the building.