FAQs

1. What is passive heating?

- Passive heating uses the energy of the sun to keep occupants comfortable without the use of mechanical systems.
- Heating the building through the use of solar energy involves the absorption and storage of incoming solar radiation, which is then used to meet the heating requirements of the space
- A successful passive solar building needs to be very well insulated in order to make best use of the sun's energy

2. What are the five elements of passive solar design?

- **Aperture (Collector)**: the large glass (window) area through which sunlight enters the building.
- **Absorber**: the hard, darkened surface of the storage element.
- **Thermal mass**: the materials that retain or store the heat produced by sunlight.
- **Distribution**: the method by which solar heat circulates from the collection and storage points to different areas of the house.
- **Control**: roof overhangs can be used to shade the aperture area during summer months

3. What are the two types of in-direct gain systems?

- Thermal storage wall systems (Trombe Walls)
- Roof pond systems

4. List few functions of sunspaces

a) Auxiliary Heating
b) To Grow Plants
c) Living Area

5. How is Internal heat gains created in a building?

- Metabolic processes (“body heat”)
- Use of appliances
- Use of artificial lighting

These are collectively known as Internal Heat gains