FAQs

1. What is Nano-technology?

- Nanotechnology is the use of very small pieces of material by themselves or their manipulation to create new large scale materials.
- At the Nano-scale material properties are altered from that of larger scales.
- The Nano-scale is the size range from approximately 1nm to 100nm.
- Nanotechnology is an enabling technology that allows us to develop materials with improved or totally new properties.

2. List few applications of Nano-technology

Nanotechnology is widely used in construction material as:

- In Concrete
- In Steel
- In Wood
- In Glass
- In Coating
- In photovoltaic

3. Explain smart materials with one example

- Smart or intelligent materials are materials that have to respond to stimuli and environmental changes and to activate their functions according to these changes.
- The stimuli like temperature, pressure, electric flow, magnetic flow, light, mechanical, etc can originate internally or externally.

Thermoresponsive Materials: Thermo-responsive is the ability of a material to change properties in response to changes in temperature. They are useful in thermostats and in parts of automotive and air vehicles.

4. List few merits and de-merits of smart materials

MERITS

- Bio-compatibility
- Simplicity
- Compactness
- Safety mechanism
- Good mechanical properties

DE-MERITS

- More expensive
- Low energy efficiency
- Complex control
- Limited bandwidth

5. What is the scope of ECBC?

- Applicable to building complexes having connected load of 500KW or greater or a contract demand of 600KVA or greater.
- Buildings or complexes having conditioned area of 1000 sq m or more
- It's a voluntary adoption in the country

- Shall become mandatory after gazette notification by any state or central government