

N.B.: (1) Question No.1 is compulsory.

(2) Attempt any three out of remaining five questions.

(3) Figure to the right indicates full marks.

(4) Illustrate answer with proper sketches

1. Write short notes on any **four** of the following. 20
 - (a) Main advantages of escalators over other vertical circulation systems.
 - (b) DC/AC Motors. (c) Need of Duct in air conditioning.
 - (d) System of plumbing. (e) Earthing for safety. (f) House drainage Plans.

2. (a) Explain the concept of rainwater harvesting? Explain methodology for Percolation recharge bore pit. 10
(b) Explain Principal of refrigeration and application. 10

3. (a) What do you understand by Earthing? Explain the various types of earthing with IS specifications. 10
(b) Explain need for a green building, and material used in green building technology with their advantages. 10

4. (a) Write about measure of fire prevention in building and list down fire lighting devices with function. 10
(b) Explain the design of modern lighting with examples. 10

5. (a) Explain different building services to be provided in residential structure. 10
(b) Explain Causes of fire in building and safety regulation as per NBC. 10

6. (a) Explain drainage system in building with neat sketch . 10
(b) Air conditioning system for differ types of building. 10
