

(Revised Course)
(3 Hours)

[Total Marks : 80

- N.B. : (1) Question No. 1 is compulsory.
 (2) Attempt any **three** out of remaining **five** questions.
 (3) **Figure** to the **right** indicate **full** marks.
 (4) **Illustrate** answer with **proper sketches**.

1. Write short note on any **four** of the following.
 - (a) DC / AC motors 20
 - (b) Layout of substation
 - (c) Hot water boilers
 - (d) Soak pit
 - (e) Vibrator
 - (f) Water audit method
2. (a) Explain the different types of materials used for service pipes. 10
 (b) Define air conditioning. Explain various air conditioning system used in building. 10
3. (a) Explain different building services to be provided in residential structures. 10
 (b) Explain different types of fire fighting system available and their process of handling. 10
4. (a) Explain the concept of rainwater harvesting? Explain methodologies for Percolation / recharge bore pit. 10
 (b) Define green building. Explain the materials used in green building technology with their advantages. 10
5. (a) Explain the design of modern lighting with examples. 10
 (b) What do you understand by Earthing. Explain the various types of Earthing with IS specifications. 10
6. (a) Explain transformers and switch gears. 10
 (b) Explain in brief various refrigerant control devices. 10

