

(03 Hours)

[Total marks:80]

PLEASE NOTE:

1. Question No 1 is **Compulsory**.
2. Attempt any **three** questions out of remaining questions.
3. Figures to the right indicate full marks.
4. Illustrate answer with proper sketches.

- Q1 Write short notes on **any four**. 20
- a) Main advantages of escalators over other vertical circulation systems.
 - b) Measures of fire prevention in buildings.
 - c) Artificial light sources
 - d) Thermal protection coatings.
 - e) Effect of climate on concrete structures
 - f) Corrosion resistant steel.
 - g) Rebound hammer test
- Q2 a) Explain the design of modern lighting with examples. 10
- b) Explain different types of cracks and crack measurement techniques. 10
- Q3 a) Explain with proper sketches about “Causes of Deterioration” of concrete structure. 10
- b) Explain drainage systems in buildings with neat sketch. 10
- Q4 Write short notes on **any four**. 20
- a) Cathodic protection.
 - b) Causes of fire in buildings.
 - c) Types of wires
 - d) Septic tank
 - e) Factors affecting visual task
 - f) Polymer concrete
- Q5 a) What are the objectives of grouting? Explain various types of injection grouting. 10
- b) Write a note on destructive and non-destructive tests. 10
- Q6 a) Explain the procedure for conducting condition survey of an RCC structure. 10
- b) What are special construction features provided for elderly and handicapped persons 10
