

Q.P. Code : 831001

(3 Hours)

[Total Marks : 80

- N.B. :** (1) Attempt **any four** questions.
(2) **Legible handwriting** and **practical examples** will be appreciated.

1. Attempt **any four** :

20

- Write short note on an over view of present repair practices of RCC structures.
- What are important factors to be considered for selection of repair methods.
- Write a note on types of cracks and their pattern.
- Differentiate between destructive and non-destructive testing.
- Draw a neat labelled diagram of process of condition survey.

- Explain in detail holistic model of deterioration of concrete. 10
 - How repairs are classified. Give the details of general observations for each class of repair required. 10
- Explain complete test procedure of conducting following non-destructive test in the field (**Any One**) : 10
 - Rebound Hammer Test
 - Ultrasonic Pulse velocity Test
 - Explain plate bonding technique with neat sketches. 10
- Write explanatory note on fire damage assessment of concrete structure. 10
 - Write explanatory note on post repair inspection. 10
- Explain steel jacketing technique OR RCC jacketing technique. 10
 - Write explanatory note on shotcreting. 10
- Write explanatory note on base isolation technique. 10
 - Write explanatory note on special care in repair and rehabilitation of heritage structures. 10
