

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY

LONERE - RAIGAD - 402103

Summer Semester Examination, May 2018

Branch: M. Tech. Civil (Structural Engineering)
Subject with subject Code: Retrofitting of Structures
[CVSE-E3C]

Semester: II

Marks: 60

Date: 18 / 05 / 2018

Time: 3 Hrs.

Instructions to the Students

1. Each question carries 12 marks
2. Attempt any five questions of the following
3. Illustrates your answer with neat sketches, diagrams etc., wherever necessary
4. If some part or parameter is noticed to be missing, you may appropriately assume it and should mention it clearly at proper location.

Q. No. 1

- A) What do you mean by quality assurance in concrete construction? Why quality assurance is important? What do you mean by quality assurance in concrete construction? Why quality assurance is important? [6]
- B) Explain different non-destructive test/techniques to evaluate strength of concrete. [6]

Q. No. 2

- A) Explain causes of cracks in structures. Also enlist different types of cracks. [6]
- B) Explain causes of dampness in buildings. [6]

Q. No. 3

- A) Discuss procedure to repair the deteriorated steel structure elements. [6]
- B) Explain types and causes of deterioration in steel structure. [6]

Q. No. 4

- A) Discuss factors affecting properties of fiber reinforced concrete. [6]
- B) Explain Sulphur infiltrated concrete? State its applications. [6]

Q. No. 5

- A) Define terms Maintenance, Repair and Rehabilitation. [6]
- B) Discuss causes of deterioration in concrete structure? [6]

Q. No. 6

- A) Why strengthening of existing reinforced concrete structure is necessary? [6]
- B) Discuss materials and methods of strengthening of reinforced concrete structure. [6]

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