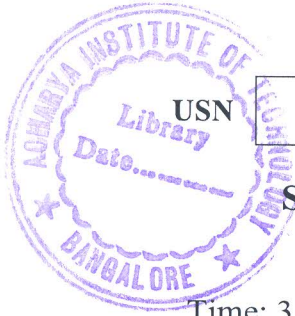


CBCS SCHEME

15CV753



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Seventh Semester B.E. Degree Examination, Dec.2019/Jan.2020 Rehabilitation and Retrofitting of Structures

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 Write a short note on:
- a) Freeze and Thaw on concrete b) Thermal movement in concrete (16 Marks)

OR

- 2 Write a short note on:
- a) Chloride attack on the concrete b) Alkali silica reaction. (16 Marks)

Module-2

- 3 a. Briefly explain the purpose of assessment. (06 Marks)
b. Explain briefly the investigation of damage. (10 Marks)

OR

- 4 Write short note on:
- a. Ultrasonic pulse velocity method
b. Windsor HP probe system. (16 Marks)

Module-3

- 5 a. Briefly explain the effect of temperature on concrete. (08 Marks)
b. Briefly explain the effect of wear and erosion on concrete. (08 Marks)

OR

- 6 a. List the factors influencing the corrosion process. (03 Marks)
b. List the corrosion protection techniques and explain any three of them. (13 Marks)

Module-4

- 7 a. Define maintenance engineering. Explain the classification of maintenance. (10 Marks)
b. Give the importance of maintenance. (06 Marks)

OR

- 8 a. Give the factors or reasons which are needed for strengthening of concrete structures (any 04). (04 Marks)
b. With neat figure explain: i) Jacking technique ii) Externally bonding technique. (12 Marks)

Module-5

- 9 Write a short note on:
- a. Aramid fibers
b. Carbon fibers
c. Natural fibers
d. Rust eliminators. (16 Marks)

OR

- 10 Write short note on:
- a. Shot Crete
b. Epoxy Injection. (16 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.