CBCS	SCHEME
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USN 15CV753

Seventh Semester B.E. Degree Examination, Dec.2018/Jan.2019

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 Explain the following terms: i) Repair ii) Rehabilitation iii) Strengthening iv) Retrofitting (08 Marks) What are the causes of distress and deterioration of concrete? (08 Marks) OR How do you carry out physical inspection of distressed concrete structures? (08 Marks) What is durability of concrete? How do the following affect the durability of concrete: Carbonation ii) Alkali aggregate reaction (08 Marks)

Module-2

- 3 a. List the steps involved in evaluation of structures and explain the different aspect of detailed investigation.

 (10 Marks)
 - b. What are the non destructive test conducted to assess the existing strength of concrete structures? Explain any one. (06 Marks)

OR

- 4 a. Give the classification of tests and different tests that comes under each category to assess existing distress of structures. (12 Marks)
 - b. What are the different situations that call for investigation of structures? (04 Marks)

Module-3

5 a. Explain the durability factors for humid environment with freezing and frost action.

(04 Marks)

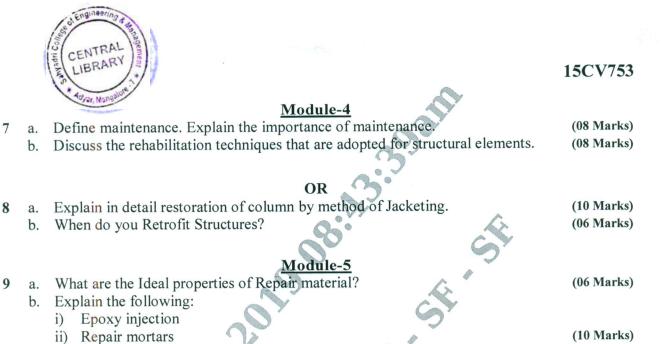
(04 Marks)

- b. Explain in detail regarding mechanism of temperature variation in concrete and their remedial measures. (08 Marks)
- c. Explain different types of cracks.

- 6 a. Explain the importance of concrete cover in RCC structures.
- (05 Marks) (05 Marks)
- b. What are the factors to be considered by the designer at the construction site?
- c. What preventive measure will ensure protection against corrosion in New Structures?

OR

(06 Marks)



OR