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Question Paper Code: 39015

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2017

Elective

Civil Engineering

01UCE905 - REPAIR AND REHABILITATION OF STRUCTURES

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Define the term defect and crazing.
2. Write short notes on Deterioration due to corrosion.
3. What do you mean by structural cracks?
4. How the cracks are classified?
5. Write short note on sulphur Infiltrated concrete.
6. Write the mechanism of accelerators.
7. What are corrosion inhibitors?
8. Write the types of shoring.
9. What do you mean by engineering demolition?
10. Write a short note on leakage.

PART - B (5 x 16 = 80 Marks)

11. (a) With a flow chart explain the assessment procedure for evaluating a damaged structure.

(16)

Or

(b) Evaluate the quality assurance in concrete construction. (16)

12. (a) Why the quality assurance for structures is needed? Explain the components of quality assurance for building. (16)

Or

(b) Elaborately explain about the effect of temperature on concrete. (16)

13. (a) Explain in detail about the manufacturing procedure and applications of sulphur infiltrated concrete. (16)

Or

(b) Briefly explain about vacuum concrete. (16)

14. (a) Explain in detail about the procedure of Cathodic protection technique. (16)

Or

(b) Detail the various non-destructive tests done to evaluate the strength of existing building. (16)

15. (a) How do you repair and rehabilitate a structure distressed due to fire? Explain in detail. (16)

Or

(b) Explain in briefly about Demolition technique with example and neat sketch. (16)
