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Question Paper Code: 39105

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2018

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. Write short notes on weekly and monthly maintenance.
2. Define physical inspection of damaged structures.
3. What do you mean by structural cracks?
4. How the cracks are classified?
5. Define polymer concrete.
6. Write short note on Geo-polymer concrete.
7. What are corrosion inhibitors?
8. Write the types of shoring.
9. Evaluate the forms of Fire damages.
10. What do you mean by engineering demolition?

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) What is maintenance? Explain in detail about the facets and importance of maintenance. (16)

12. (a) (i) Why the quality assurance for structures is needed? Explain the components of quality assurance for building. (10)

(ii) Briefly explain the effect of chemicals on concrete. (6)

Or

(b) Explain in detail about various types & causes of cracks concrete. (16)

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

Or

(b) What is meant by special concrete and also explain any five types of special concrete (16)

14. (a) Explain in detail any two corrosion protection methods. (16)

Or

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

15. (a) How do you demolish a high raise building situated in densely populated area? Explain in detail. (16)

Or

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