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Question Paper Code: 49105

B.E./B.Tech. DEGREE EXAMINATION, SEP 2020

Elective

Civil Engineering

14UCE905- REPAIR AND REHABILITATION OF STRUCTURES

(Regulation 2014)

Duration: One hour

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following Questions)

- Maintenance is a _____ and steady state activity. CO1- R
(a) occasional (b) cyclic (c) annual (d) rare
- The sulphate attack can be controlled by CO1- R
(a) Air entrainment (b) High alumina cement (c) Pozzolana (d) All the above
- For preparing mortar _____ is used along with cement and water CO2-U
(a) Aggregates (b) Bricks (c) Sand (d) Steel
- Concrete has a good resistant against CO2- R
(a) Cavitation (b) Corrosion (c) Abrasion (d) All the above
- Concrete produced by removing excess water is known as _____ CO3- R
(a) vacuum concrete (b) self compacting concrete
(c) FRC (d) dry pack
- Cracks may be considered as probalamatic, if they are CO3- U
(a) Aesthetically unacceptable (b) Structure non water tight
(c) Affect the durability (d) All the above
- Shotcrete concrete contains a well grained aggregates of CO4-U
(a) 10mm or less in size (b) 20mm or less in size
(c) 10mm or more in size (d) None of the above
- Dry pack is used for the repair of CO4- U
(a) Dormant cracks (b) Filling (c) Growing cracks (d) All the above

9. Suitable time to take up repair is _____ CO5- R
(a) winter (b) autumn (c) spring (d) summer
10. One of the method adopted for protecting corrosion is CO5- U
(a) painting (b) Distempering (c) varnishing (d) Cleaning

PART- B (3 x 8 = 24 Marks)

(Answer any three of the following Questions)

11. Brief about causes, types and prevention of cracks.. CO1-U (8)
12. Briefly explain the chemical attack on concrete with its preventive measures. CO2 -U (8)
13. Describe in detail about the self compacting concrete and concrete with industrial wastes.. CO3-U (8)
14. With the aid of neat sketches, explain any two Non destructive testing techniques. CO4-U (8)
15. How do you improve the load carrying capacity of column? Explain. CO5-U (8)