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**Question Paper Code: 31012**

B.E. / B.Tech. DEGREE EXAMINATION, OCTOBER 2014.

Third Semester

Civil Engineering

01UCE302 – CONSTRUCTION TECHNIQUES AND PRACTICES

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 2 = 20 Marks)

1. What do you mean by M30 grade concrete?
2. What are the tests conducted on the fresh concrete?
3. What for expansion joint is provided in buildings?
4. What is the advantage in using slip forms?
5. List out the materials used for thermal insulation.
6. Distinguish between pre construction and post construction antitermite treatment.
7. What are the symptoms of distress in concrete structures?
8. What is meant by crazing?
9. What are the operations carried out with grader?
10. What are types of mixers used for mixing of concrete?

PART - B (5 x 16 = 80 Marks)

11. (a) (i) Distinguish between nominal mix and design mix. (3)
- (ii) Describe IS method of concrete mix design. (13)

Or

- (b) (i) Describe the compacting factor test for concrete. (6)
- (ii) What are the objectives of using vibrators in concreting operations? State the different types of vibrators and their usefulness. Explain about any one of them in detail. (10)
12. (a) (i) Describe with neat sketches the method of setting out foundation trenches. (8)
- (ii) Compare brick masonry with stone masonry. (8)
- Or
- (b) (i) Explain briefly about the various types of building foundations. (12)
- (ii) What are the requirements of good formwork? (4)
13. (a) (i) Write the procedure involved in carrying out distempering. (8)
- (ii) Explain how will you achieve fire resistance construction in walls and columns? (8)
- Or
- (b) (i) How sound insulation is done for the wall of a hall? (6)
- (ii) Explain briefly about the various methods adopted for damp proofing. (10)
14. (a) (i) What are the various crack repair techniques? Explain. (12)
- (ii) List the causes for deterioration and distress in structures. (4)
- Or
- (b) Write the step by step repairing procedure adopted for
- (i) column strengthening
- (ii) strengthening of slabs
- (iii) strengthening of beams. (16)
15. (a) Explain about
- (i) compacting equipments
- (ii) equipments for placing of concrete. (16)
- Or
- (b) Explain briefly about the following.
- (i) pile driving equipments
- (ii) equipments for erection of structures. (16)