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Question Paper Code: 41132

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

Third Semester

Civil Engineering

14UCE302 – CONSTRUCTION TECHNIQUES AND PRACTICES

(Regulation 2014)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions.

(Use of IS 10262:2009 and IS 456:2000 code books are permitted)

PART A - (10 x 1 = 10 Marks)

- M10 grade of concrete approximates
 - 1 : 3 : 6 mix
 - 1 : 1 : 2 mix
 - 1 : 2 : 4 mix
 - 1 : 1.5 : 3 mix
- Vicat's apparatus is used for
 - fineness test
 - consistency test
 - setting time test
 - soundness test
- The tendency of a stone is to split along
 - texture
 - fracture
 - cleavage
 - structure
- In horizontal D.P.C, thickness of cement concrete (1 : 2 : 4) is
 - 2 cm
 - 4 cm
 - 6 cm
 - 8 cm
- Turpentine oil is used in paints as
 - thinner
 - vehicle
 - base
 - drier
- The timber having maximum resistance against white ants, is obtained from
 - chir
 - shisham
 - sal
 - teak

7. A maintenance done after the defects is called
(a) remedial (b) routine (c) special (d) strengthening
8. Pieces of stones are called
(a) ballast (b) spalls (c) crushed stone (d) none of these
9. The equipment which shapes the ground and spreads the loose soil
(a) scraper (b) grader (c) tractor (d) dozer
10. To attain the required shape of the tunnel section
(a) easers (b) trimmers (c) cut holes (d) chisels

PART - B (5 x 2 = 10 Marks)

11. Distinguish between Design mix and Nominal mix.
12. Mention the advantages of slip forms.
13. Define dampness.
14. How can we determine the cause for deterioration of concrete structure?
15. Give a list of equipments needed in the construction of tall structures.

PART - C (5 x 16 = 80 Marks)

16. (a) Explain briefly about the steps involved in manufacturing process of concrete. (16)
- Or
- (b) Enumerate any four non-destructive testing techniques. (16)
17. (a) Briefly explain the sequence of activities to be done in construction. (16)
- Or
- (b) List out the types of scaffolding and explain in detail with neat sketches. (16)
18. (a) Give a brief description of the process of painting on different surfaces. (16)
- Or
- (b) Describe the basic requirements and conditions to be fulfilled for good acoustics of an auditorium. (16)
19. (a) Describe the various strengthening techniques to overcome low member strength. (16)

Or

(b) Describe the steps in the assessment procedure for evaluate damages in a structure. (16)

20. (a) Discuss the factors affecting the selection of equipments for a earth work. (16)

Or

(b) Discuss the role of tractors in earth moving. What considerations govern the selection of wheel type or crawler type tractor on a job? Compare their applications. (16)
