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Question Paper Code: 43102

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2019

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)

- Which of the below forms the major composition of OPC cement?
(a) Lime (b) Silica (c) Alumina (d) Iron oxide
- As per IS 456:2000 list up to which grade of concrete nominal mix may be used
(a) M40 (b) M10 (c) M20 (d) M60
- The foundations are placed below ground level, to increase
(a) Strength (b) Workability
(c) Stability of Structure (d) All the above
- In horizontal D.P.C, thickness of cement concrete (1 : 2 : 4) is
(a) 2 cm (b) 4 cm (c) 6 cm (d) 8 cm
- In ordinary residential and public buildings, the damp proof course is generally provided at
(a) Ground level (b) Plinth level
(c) Water table level (d) Midway ground level and water-table level

6. A flexible material used for Damp proof Course is
(a) Bitumen sheeting (b) Plastic Sheeting
(c) Mastic asphalt (d) Cement concrete
7. Pieces of stones are called
(a) Ballast (b) Spalls (c) Crushed stone (d) None of these
8. Pieces of stones are called
(a) ballast (b) spalls (c) crushed stone (d) none of these
9. The best roller for compacting crushed stones is
(a) Smooth – Wheel Rollers (b) Sheep – Foot Rollers
(c) Pneumatic Tyred Rollers (d) All the above
10. Trenchers is used for
(a) Compacting (b) Moving construction material
(c) Excavation (d) None of the above

PART - B (5 x 2 = 10 Marks)

11. Define Admixture.
12. List the types of masonry.
13. Name the various acoustic defects that may be found in auditorium.
14. Define repair.
15. Define Dredging.

PART - C (5 x 16 = 80 Marks)

16. (a) Write the procedure for of mix design as per IS10262:2009. (16)
- Or
- (b) Enumerate the various steps involved in the manufacture of concrete. (16)
17. (a) Explain in detail about slip form technique. (16)
- Or
- (b) Explain the different types of joints in concrete structure with neat sketches. (16)

18. (a) (i) Write the fire protective requirements of the building? (8)
(ii) Write a short essay on the various materials used for thermal insulation of building. (8)

Or

- (b) Bring out the general principles and factors in acoustical design of a hall. (16)

19. (a) Explain the major causes of damage in structure. (16)

Or

- (b) (i) Give Some common types of repair works which can be applied in the rehabilitation of buildings. (8)

- (ii) Write short notes on grouting techniques. (8)

20. (a) Write about the material handling equipment's in detail. (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)

