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Question Paper Code: 43102

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

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)

- In the manufacture of cement, the dry or wet mixture of calcareous and argillaceous materials is burnt at a temperature between
 - $900^{\circ}C$ to $1000^{\circ}C$
 - $1000^{\circ}C$ to $1200^{\circ}C$
 - $1200^{\circ}C$ to $1500^{\circ}C$
 - $1500^{\circ}C$ to $1600^{\circ}C$
- A badly mixed cement concrete results in
 - segregation
 - bleeding
 - honey combing
 - none of these
- The form work from the underside of slabs, can be removed only after
 - 1 day
 - 4 day
 - 7 day
 - 14 day
- In horizontal D.P.C, thickness of cement concrete (1 : 2 : 4) is
 - 2 cm
 - 4 cm
 - 6 cm
 - 8 cm

5. 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. The timber having maximum resistance against white ants, is obtained from
- (a) Chir (b) Shisham (c) Sal (d) Teak
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 Auger borings are not common
- (a) in soils that require lateral support (b) in cohesive soils
(c) in soft soils (d) none of these
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. List out some of the construction chemicals commonly used.
12. What are the requirements of good floor?
13. Define dampness.
14. What do you mean by modernization and rehabilitation?
15. On what basis you will select the equipment for the construction?

PART - C (5 x 16 = 80 Marks)

16. (a) Describe the processes in the manufacture of ordinary Portland cement. (16)
- Or
- (b) Enumerate the various steps involved in the manufacture of concrete. (16)

17. (a) Explain the various types of flooring with neat sketches. (16)

Or

(b) Explain the different types of joints in concrete structure with neat sketches. (16)

18. (a) Explain the various methods of providing DPC? Also state the requirements of an ideal material for Damp proofing. (16)

Or

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

19. (a) Explain the classification of cracks and how the cracks can be measured and reported. (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) What are the factors must be taken into account during selection of earthwork equipment? (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)

