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**Question Paper Code: 41132**

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2016

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 a mortar the binding material is
  - cement
  - sand
  - surkhi
  - cinder
- A badly mixed cement concrete results in
  - segregation
  - bleeding
  - honey combing
  - none of these
- The tendency of a stone is to split along
  - texture
  - fracture
  - cleavage
  - structure
- The form work from the underside of slabs, can be removed only after
  - 1 day
  - 4 day
  - 7 day
  - 14 day
- In fire proof paints the main consistent is
  - aluminium powder
  - red lead
  - copper powder
  - asbestos fibers

6. Distemper is used to coat
- (a) external concrete surface
  - (b) interior surface not exposed to weather
  - (c) wood work
  - (d) compound walls
7. The age of a tree can be known by examining
- (a) cambium layer
  - (b) annular rings
  - (c) medullary rays
  - (d) heart wood
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. Construction team means
- (a) an engineer
  - (b) an architect
  - (c) an owner
  - (d) all the above

PART - B (5 x 2 = 10 Marks)

11. What does the grade of cement denote?
12. What is the necessity of providing construction joints?
13. Define dampness.
14. What do you mean by modernization and rehabilitation?
15. What are the equipments needed for tunneling and trenching?

PART - C (5 x 16 = 80 Marks)

16. (a) Explain the various steps involved in the manufacture of concrete. (16)
- Or
- (b) Describe the processes in the manufacture of ordinary Portland cement. (16)
17. (a) What is scaffolding? Explain its various components and types with sketches. (16)

Or

- (b) Explain the various types of flooring with neat sketches. (16)
18. (a) Describe in detail the construction practices to be followed for acoustics and fire protection. (16)

Or

- (b) Explain the various methods of providing DPC? Also state the requirements of an ideal material for Damp proofing. (16)
19. (a) What are the defects normally observed in concrete structures? Discuss briefly their remedies. (16)

Or

- (b) Explain the classification of cracks and how the cracks can be measured and reported. (16)
20. (a) Explain in detail the various equipment used for compaction, batching and mixing of concrete. (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)
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