

Reg. No. :

--	--	--	--	--	--	--	--	--	--

Question Paper Code: 43102

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

- 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 $1600^{\circ}C$
- As per IS 456:2000 list up to which grade of concrete nominal mix may be used
 - M40
 - M10
 - M20
 - M60
- The minimum thickness of a wall in stone masonry should not be less than
 - 100 mm
 - 200 mm
 - 350 mm
 - 450 mm
- In horizontal D.P.C, thickness of cement concrete (1 : 2 : 4) is
 - 2 cm
 - 4 cm
 - 6 cm
 - 8 cm

5. In fire proof paints the main consistent is
- (a) aluminium powder (b) red lead
(c) copper powder (d) 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. 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 equipment which shapes the ground and spreads the loose soil
- (a) scraper (b) grader (c) tractor (d) dozer
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. 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. Define Dredging.

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

18. (a) Describe in detail the construction practices to be followed for acoustics and fire protection. (16)

Or

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

19. (a) What are the defects normally observed in concrete structures? Discuss briefly their remedies. (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) 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)

