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Question Paper Code: 50142

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

Fourth Semester

Civil Engineering

15UCE402 - CONSTRUCTION TECHNIQUES, EQUIPMENTS AND PRACTICES

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

- Slump test for concrete is carried out, to determine
 - Strength
 - Durability
 - Workability
 - Water content
- Separation of coarse aggregates from mortar during transportation, is known
 - Bleeding
 - Creeping
 - Segregation
 - Shrinkage
- Stones used for rubble masonry must be
 - Soft
 - Hard
 - Light
 - Heavy
- The portion of brick cut across the width, is called
 - closer
 - Half brick
 - Bed
 - Bat
- Dampness Causes
 - Efflorescence
 - Bleaching of paints
 - Crumbling of plaster
 - Growth of termites
- The base material for distemper is
 - Chalk
 - Lime
 - Lime Putty
 - Cement wash

7. High pressure grouting is generally restored for concreting in the lining, if the rock strata is
- (a) Highly fissured (b) poor
(c) likely to get seepage of water (d) All the above
8. The durability of building stone masonry is affected by its
- (a) Chemical composition (b) Texture
(c) Location in structure (d) All the above
9. For concreting tunnel linings, transportation of a concrete is done by
- (a) Pans (b) Wheel barrows
(c) Containers (d) Pumps
10. Transportation of concrete by pumps, is done for a distance of
- (a) 100m (b) 200m (c) 300m (d) 400m

PART - B (5 x 2 = 10 Marks)

11. What is grade of cement? List any three grades of cement.
12. What are the steps involved in site clearance?
13. What are the damp proofing materials?
14. Define repair.
15. What is motor grader?

PART - C (5 x 16 = 80 Marks)

16. (a) Draw the flow diagram for the manufacturing of cement by dry process. Explain the same. (16)
- Or
- (b) List the tests conducted on fresh concrete. Explain any two tests. (16)
17. (a) (i) What are the types of bonds in brick masonry. (6)
- (ii) Distinguish between Flemish and English bond in brick masonry. (10)

Or

- (b) Name the different types of scaffolding. Explain any two types of scaffolding. (16)

18. (a) (i) Briefly explain the sources of dampness. (10)
(ii) What are the effects of dampness? (6)

Or

- (b) (i) List out the types of acoustical material? Explain the same. (10)
(ii) What are the qualities required for the good acoustical materials? (6)
19. (a) (i) What are the factors influencing corrosion of reinforcement? (10)
(ii) What are the protective coatings used for the reinforcement? (6)

Or

- (b) Briefly explain about the stages of repair in concrete structure. (16)
20. (a) What are the factors to be considered in the selection of construction equipment? (16)

Or

- (b) (i) What are the different types of scrapers? (6)
(ii) What are the different types of earth work equipment? Explain any two type of equipment. (10)
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