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**Question Paper Code: 41312**

B.E. / B.Tech. DEGREE EXAMINATION, MAY 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 the manufacture of cement, the dry or wet mixture of calcareous and argillaceous materials is burnt at a temperature between
  - 900°C to 1000°C
  - 1000°C to 1200°C
  - 1200°C to 1500°C
  - 1500°C to 1600°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
- The piece of a brick cut with its one corner equivalent to half the length and half the width of a full brick, is known as
  - Queen closer
  - Bevelled closer
  - King closer
  - Half king closer

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. A flexible material used for Damp proof Course is
- (a) Bitumen sheeting (b) Plastic Sheetting  
(c) Mastic asphalt (d) Cement concrete
7. Corrosion involves exchange of electrons in \_\_\_\_\_ corrosion.
- (a) Chemical (b) Electrochemical  
(c) Both (a) & (b) (d) Neither (a) nor (b)
8. For scaling cracks in concrete structures by using epoxy, the minimum routing should be
- (a) 20 mm (b) 15 mm (c) 9 mm (d) 6 mm
9. Which one of the following is not an excavating and moving type of equipment?
- (a) Bull dozer (b) Clam shell (c) Scraper (d) Dump truck
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. List out some of the construction chemicals commonly used.
12. What are the requirements of good floor?
13. Name the various acoustic defects that may be found in auditorium.
14. Define repair.
15. On what basis you will select the equipment for the construction?

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 the various types of stone masonry with neat sketches. (16)

Or

- (b) Explain in detail about different types of joints in concrete structures. (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) Explain in detail about Dampness and its prevention. (16)
19. (a) Explain causes of damage and deterioration in masonry and concrete structures. (16)

Or

- (b) Explain the various types of defects and their repair technique. (16)
20. (a) What are the factors must be taken into account during selection of earthwork equipment? (16)

Or

- (b) Describe in detail the various equipment used for compaction, batching and mixing of concrete. (16)
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