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Question Paper Code : 27101

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2015.

Fourth Semester

Civil Engineering

CE 6401 — CONSTRUCTION MATERIALS

(Common to Environmental Engineering)

(Regulations 2013)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. State any four characteristics of good building stone.
2. What do you mean by lightweight concrete blocks?
3. Define the term setting time of cement.
4. List the test for coarse aggregates.
5. What is meant by workability?
6. Define self compacting concrete.
7. What is seasoning of timber?
8. What are the basic components of paint?
9. Define sealant.
10. What is fibre textile?

PART B — (5 × 16 = 80 marks)

11. (a) Briefly discuss the defects and preservation of stones. (16)

Or

- (b) Describe the various tests on bricks. (16)

12. (a) Describe the manufacturing process of cement. (16)

Or

- (b) Explain briefly about
- (i) Consistency test on cement
 - (ii) Soundness of cement
 - (iii) Crushing strength of aggregate
 - (iv) Impact strength of aggregate.

13. (a) Explain the various tests to be performed on hardened concrete. (16)

Or

- (b) Write in detail about
- (i) Curing (8)
 - (ii) High strength concrete. (8)

14. (a) (i) Enumerate the advantages of aluminium in construction. (8)

(ii) Explain the defects in timber. (8)

Or

- (b) Write short notes on :
- (i) Thermacole (4)
 - (ii) Steel (4)
 - (iii) Distemper (4)
 - (iv) Varnish. (4)

15. (a) Write short note on :

- (i) Glass (8)
- (ii) Fibre glass reinforced plastic. (8)

Or

(b) Explain in detail about refractories. (16)