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**Question Paper Code : 77060**

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2015.

Fourth Semester

Civil Engineering

CE 6401 – CONSTRUCTION MATERIALS

(Common to Environmental Engineering)

(Regulation 2013)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List any four tests on stones.
2. Define the term Efflorescence.
3. What are the normal ingredients of cement?
4. Define Elongation index.
5. What is meant by modulus of rupture?
6. Define HPC as per ACI.
7. What are the advantages of Thermacole?
8. What are the advantages of bituminous road over concrete roads?
9. What are the characteristics of good sealants?
10. Differentiate geo membranes and geo textiles.

PART B — (5 × 16 = 80 marks)

11. (a) Explain in detail about the manufacturing process of bricks.

Or

- (b) Explain the recent advancements in bricks.



12. (a) How do you perform the compression strength of cement mortar cube? Also explain the procedure for fineness of cement.

Or

- (b) Explain with codal provision for testing of conventional coarse aggregates.

13. (a) With sketches explain in detail about the different flow properties of concrete.

Or

- (b) With sketches explain the various specifications for self compacting concrete.

14. (a) Explain the manufacturing process and civil engg applications of steel.

Or

- (b) Explain in detail about :

(i) Aluminium composite panel (8)

(ii) Distemper (4)

(iii) Paint. (4)

15. (a) Explain in detail about

(i) Ceramics (8)

(ii) Fibre glass reinforced plastic. (8)

Or

- (b) Describe the various applications of (i) Laminar Composites  
(ii) Geo textiles.