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Question Paper Code : 80070

B.E./B.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2019.

Third and Fourth Semester

Civil Engineering

CE 8391 — CONSTRUCTION MATERIALS

(Common to B.E. Environmental Engineering)

(Regulation 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define "natural bed of stone".
2. Differentiate first and second class bricks.
3. Define "slaking of lime".
4. Mention the function of coarse aggregate in concrete.
5. List the various ingredients involved in Ready Mixed concrete.
6. Explain the purpose of curing.
7. Write the different types of Industrial timber.
8. Write the various constituents of enamel paint.
9. Mention the application of fibre glass reinforced plastic.
10. Define "Composite Materials".

PART B — (5 × 13 = 65 marks)

11. (a) Explain the properties of a good brick.

Or

- (b) Discuss the test procedure for two types of test on stones.

12. (a) Explain field tests on river sand and cement.

Or

(b) Describe the various properties of coarse aggregate.

13. (a) Discuss the functions of cement, fine aggregate and water in the concrete.

Or

(b) Explain various means of compaction of concrete.

14. (a) Write the properties and uses of timber.

Or

(b) Explain the different types of paints.

15. (a) List few modern materials and explain the uses of any two materials.

Or

(b) Explain the properties and uses of glass.

PART C — (1 × 15 = 15 marks)

16. (a) Discuss the criteria to recommend stone as a good building material.

Or

(b) As a civil Engineer recommend various building Materials involved in the construction of a building with their criteria with respect to quality.