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**Question Paper Code : 40296**

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2021.

Third/Fourth Semester

Civil Engineering

CE 8391 – CONSTRUCTION MATERIALS

(Common to Environmental Engineering)

(Regulations 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is the size of a brick?
2. From which rock is granite produced?
3. Define cement hydration.
4. What are the importance of finding compressive strength?
5. Write the ingredients of concrete.
6. Define curing of concrete.
7. Differentiate paint and varnish.
8. Enlist the uses of bitumen.
9. What are fiber textiles?
10. What are refractories?

PART B — (5 × 13 = 65 marks)

11. (a) Explain the selection criteria for stone. (13)

Or

- (b) Write a note on the light weight concrete blocks. (13)

12. (a) Explain the soundness test and consistency test on cement. (13)

Or

(b) Describe the functions of cement manufacturing process. (13)

13. (a) Recall the process in batch plant. (13)

Or

(b) Illustrate the placing and compaction of concrete. (13)

14. (a) Explain aluminium composite panel, advantages and applications. (13)

Or

(b) Discuss the market forms of steels. (13)

15. (a) Write down the applications of laminar composites. (13)

Or

(b) Write notes on geomembranes and geotextiles for earth reinforcement. (13)

PART C — (1 × 15 = 15 marks)

16. (a) Explain the tests on stone in detail. (15)

Or

(b) Explain the types of cement in detail. (15)

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