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Question Paper Code : 41020

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2013.

Seventh Semester

Civil Engineering

080100051 – CONCRETE TECHNOLOGY

(Regulation 2008)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is meant by Grading of aggregate?
2. Classify aggregates based on size.
3. Give few examples for Accelerators.
4. What is meant by Retarders?
5. Define the term Nominal Mix.
6. What are the methods available for concrete mix design?
7. How do you find the flexural strength of concrete?
8. What is meant by segregation in concrete mix?
9. What are the ingredients for light weight concrete?
10. Write the few name of polymer which is used for making polymer concrete.

PART B — (5 × 16 = 80 marks)

11. (a) List the various tests to be conducted on aggregate and explain any two in detail.

Or

- (b) Write detailed notes on different types and properties of Cement.

12. (a) List the various types of mineral admixtures and explain briefly about their effects on concrete properties.

Or

- (b) Write brief notes on following :

- (i) Retarders. (4)
- (ii) Plasticisers and Super plasticizers. (8)
- (iii) Water proofers. (4)

13. (a) (i) Discuss briefly about the physical properties of materials required for mix design. (10)
- (ii) Write brief notes on principles of mix proportioning. (6)

Or

- (b) Discuss in detail about BIS methods of mix design.

14. (a) Explain in detail about workability test of concrete.

Or

- (b) Discuss in detail about various properties of hardened concrete.

15. (a) Discuss in detail about production of high performance concrete and also explain their properties.

Or

- (b) Write detailed note on following :

- (i) High strength concrete. (8)
- (ii) Fibre reinforced concrete. (8)