

[Total No. of Questions: 09]
Uni. Roll No.

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Program: B.Tech.
Semester: 4th
Name of Subject: Concrete Technology
Subject Code: PCCE - 105
Paper ID: 16176

Time Allowed: 02 Hours

Max. Marks: 60

NOTE:

1. Each question is of 10 marks.
2. Attempt any six questions out of nine
3. Any missing data may be assumed appropriately

21-01-2022(M)

1. Concrete mix Proportioning for M30 grade of concrete, suitable for road construction (for a slump of 20-25mm) and using a normal naphthalene based superplasticizer.
2. Describe the various types of cement and their applications.
3. Illustrate the phenomenon of micro-cracking of hardened concrete.
4. How will the alkali-aggregate reaction effect the concrete properties?
5. Assuming that concrete is made from correct ingredients and in the correct proportion, what are the other requirements must be met to ensure a durable structure, that is durable structure with long life?
6. Describe briefly the lightweight foamed or aerated concrete, its type, properties, advantages and disadvantages.
7. Determine the various defects in concrete and the reasons of deterioration of concrete.
8. Explain the basic principle on which Schmidt's rebound hammer works. What are its limitations?
9. Enlist the test methods of self-compacting concrete. Describe the slump flow and T₅₀₀ tests.
