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MANIPAL INSTITUTE OF TECHNOLOGY

MANIPAL

A Constituent Institution of Manipal University

II SEMESTER M.TECH. (CONSTRUCTION ENGG. & MANAGEMENT)
END SEMESTER EXAMINATIONS, APRIL/MAY 2017
SUBJECT: RECENT ADVANCES IN CONCRETE TECHNOLOGY
[CIE 5239]
REVISED CREDIT SYSTEM
(29/04 /2017)

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

- ❖ Answer **ALL** the questions.
- ❖ Missing data may be suitably assumed..

1A.	Explain the properties of hardened concrete with related tests for the same.	5
1B.	What are Bogues compounds? Explain hydration of cement along with reactions taking place during the same.	5
2A.	What are the properties, advantages, disadvantages and applications of self-compacting concrete?	5
2B.	Write short notes on heavy weight concretes	5
2C.	Discuss concreting practices	2
3A.	Explain Non-Destructive tests for hardened concrete	6
3B.	What are steps taken for Quality Control of Concrete?	4
4A.	Explain the guidelines for Mix design of high strength concrete in general.	6
4B.	Discuss physical deterioration process in concrete.	4
5A.	Define: a) Durability of concrete b) Biological deterioration of concrete	2
5B.	Which are the crack repair procedures in concrete? Explain each	4
5C.	Write short notes on corrosion of reinforcing steel.	4