

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**M. E. - SEMESTER – II • EXAMINATION – SUMMER • 2013**

**Subject code: 1724906****Date: 05-06-2013****Subject Name: Advances in Concrete Technology****Time: 10.30 am – 01.00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (a)** Describe various properties of fresh and hardened concrete in detail. **07**
- (b)** Explain Non destructive testing and its applications. **07**
- Q.2 (a)** Explain Polymer concrete and Fiber reinforced concrete in detail. **07**
- (b)** State the importance of RMC and enlist its applications **07**
- OR**
- (b)** Write a short note on quality control of concrete **07**
- Q.3 (a)** What is Mix design? Enlist various steps of IS mix design. **07**
- (b)** Describe about selection of materials to produce high performance concrete **07**
- OR**
- Q.3 (a)** Differentiate between RCC and SCC. **07**
- (b)** State the importance of flyash concrete and its applications **07**
- Q.4 (a)** How do you produce high workable concrete .Also mention the advantages and disadvantages of high workable concrete. **07**
- (b)** State the influence of types of cement , quality of water ,method of compaction on quality of concrete. **07**
- OR**
- Q.4 (a)** Describe in detail about durability of concrete **07**
- (b)** Prepare a list of preventive measures to be taken during preparation , handling , placing of concrete for providing quality concrete **07**
- Q.5 (a)** State the features and advantages of precast and prestressed Concrete **07**
- (b)** Write a shortnote on High Performance concrete **07**
- OR**
- Q.5 (a)** Write shortnote on Mass concrete and shrinkage compensating concrete. **07**
- (b)** Enlist various tests on concrete and explain any two in detail **07**

\*\*\*\*\*