

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER- III(OLD) EXAMINATION – SUMMER 2019****Subject Code: 130605****Date: 19/06/2019****Subject Name: Concrete Technology****Time: 02:30 PM TO 05:00 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 procedure of IS Code Method of mix design. **07**  
(b) Enlist the types of cements and explain any two. **07**
- Q.2** (a) Enlist tests on cement. Explain Initial & Final Setting time Test of cement. **07**  
(b) Explain process for manufacturing of cement. **07**
- OR**
- (b) What is curing? Explain membrane curing. **07**
- Q.3** (a) What is NDT? Explain Rebound hammer test in detail. **07**  
(b) Define Creep. Explain factors affecting creep of Concrete. **07**
- OR**
- Q.3** (a) Write short note on segregation and bleeding. **07**  
(b) Define flakiness and elongation index of aggregate. Explain aggregate Abrasion test. **07**
- Q.4** (a) Write short note on permeability of concrete. Explain factors affecting permeability of concrete. **07**  
(b) Write Short note: (i) Sulphate attack , ii) specific gravity of aggregate. **07**
- OR**
- Q.4** (a) State different types of special concrete and describe any one. **07**  
(b) Explain different types of slump with sketch only. **07**
- Q.5** (a) Write short note on alkali aggregate reaction and sulfate attack. **07**  
(b) Discuss the Compressive strength test of concrete. **07**
- OR**
- Q.5** (a) Discuss the factors which influence the choice of mix design. **07**  
(b) Define workability. Enlist the test for measurement of workability and Explain any one. **07**

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