

**B.Tech. Civil (Construction Management)**

**Term-End Examination**

**June, 2015**

**ET-581(A) : TESTING FOR QUALITY CONTROL**

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*Time : 3 hours*

*Maximum Marks : 70*

**Note :** Attempt any **five** questions. All questions carry equal marks.

1. (a) What are the factors which affect the test strength of concrete ? Explain in detail with example and graphs. 7
- (b) Explain the following tests for concrete :  $2 \times 3 \frac{1}{2} = 7$ 
  - (i) Ring Tension Test
  - (ii) Double Punch Test
2. (a) What do you understand by Rebound Principle ? Explain and differentiate it from Indentation Principle.
- (b) List out any four Non-Destructive concrete testing methods and explain any two of them. 7+7=14
3. How do you sample the concrete ? Explain in steps. What are the acceptance and rejection criteria for the same ? Explain with relevant code authority. 5+3+3+3=14

4. What all tests do you carry out for the following construction items and determine their suitability ?  $4 \times 3 \frac{1}{2} = 14$

- (a) Brick (clay)
- (b) Glazed Earthenware Tiles
- (c) Timber
- (d) AC Sheets

5. Explain the following tests for the cement :  $4 \times 3 \frac{1}{2} = 14$

- (a) Fineness Test
- (b) Consistency Test for Cement Paste
- (c) Initial Setting Time
- (d) Final Setting Time

6. (a) What are the various tests carried out for checking the quality of water ? Explain any two in detail.

- (b) What do you understand by Soundness of Cement ? Explain Le Chatelier method and Autoclave method to determine the soundness.  $7+7=14$

7. Write short notes on the following :  $4 \times 3 \frac{1}{2} = 14$

- (a) Testing of Admixtures for Chloride
  - (b) Bleeding of Concrete
  - (c) Vee Bee Test
  - (d) Slump Test
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