B.Tech. Civil (Construction Management)

Term-End Examination

June, 2017

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

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 any one factor.   7

    (b) What do you understand by Rebound Principle ? Explain and differentiate it from Indentation Principle.   7

2. How do you sample concrete ? Explain its procedure. What are the acceptance and rejection criteria for the same ?   14

3. (a) Explain the two methods of impermeability test for AC sheets.   7

    (b) Explain the tests for block boards for determining the dimensional changes caused by humidity and also resistance to water.   7

4. (a) Name the various tests to be conducted for testing clay bricks. Describe any one test in detail. *8*

(b) Write a short note on the compression test of timber, in parallel to grain and perpendicular to grain positions. *6*

5. Discuss the significance of determining the standard consistency of cement and describe the method of determining the same. Give a neat sketch of the apparatus. *14*

6. Name the various tests for particle size and shape of aggregates. Describe any one test in detail. Also give acceptable range of test parameters. *14*

7. Write short notes on any *four* of the following :

$$4 \times 3\frac{1}{2} = 14$$

(a) Abrasion Test

(b) Turbidity Test

(c) Heat of Hydration

(d) Flow Test of Concrete

(e) Testing of Admixtures for Chloride