

B.Tech. Civil (Construction Management)
Term-End Examination
December, 2015

ET-581(A) : TESTING FOR QUALITY CONTROL

Time : 3 hours

Maximum Marks : 70

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

1. (a) Explain the two methods of Impermeable test for AC sheets. $2 \times 3 \frac{1}{2} = 7$
- (b) Explain the tests for determining the dimensional changes caused by humidity and also the resistance to water. $2 \times 3 \frac{1}{2} = 7$
2. (a) How does the height/diameter ratio affect the strength in a test specimen cylinder ? Explain with the help of curves. 7
- (b) What are the factors affecting the test strength ? 7
3. (a) Explain the terms "Measure of Dispersion" and "Coefficient of Variation" with suitable examples. 7
- (b) Explain the procedure used for sampling of concrete. What are the acceptance criteria ? 7

4. Differentiate between the following : $4 \times 3 \frac{1}{2} = 14$
- (a) Non-Destructive and Destructive testing methods of concrete
 - (b) Double Punch Test and Ring Tension Test
 - (c) Aggregate Impact Value and Aggregate Crushing Value
 - (d) Sea water and Potable water
5. What is the necessity of testing cement ? Explain how do you determine the soundness of cement and carry out the Heat of Hydration Test ? $4+5+5=14$
6. Explain the following tests for concrete : $4 \times 3 \frac{1}{2} = 14$
- (a) Fineness Test
 - (b) Consistency test for Cement Paste
 - (c) Initial Setting Time
 - (d) Final Setting Time
7. Write short notes on the following : $4 \times 3 \frac{1}{2} = 14$
- (a) Testing of Admixtures
 - (b) Flow Test of Concrete
 - (c) Test for Determination of Aggregate Abrasion Value
 - (d) Testing of Timber