

B.Tech. Civil (Construction Management)

Term-End Examination

December, 2017

00117

ET-581(A) : TESTING FOR QUALITY CONTROL

Time : 3 hours

Maximum Marks : 70

Note : *Question number 1 is compulsory. Attempt any four from rest of the questions.*

1. Fill in the blanks : 7×2=14

- (a) Thorin method is used to find _____ in water.
- (b) The angularity number is estimated by the formula _____ .
- (c) Higher is the value of ACV, _____ will be the quality of aggregate.
- (d) In the Los Angeles abrasion test of aggregates, the number of steel spheres used for grading C is _____ .
- (e) The dimensions of slump cone are _____ .
- (f) With increase in compacting factor value, the Vee-Bee time _____ .
- (g) Windsor probe estimates the strength of concrete by $f_c = A W^B$, where W is _____ .

- 2. (a)** What is the consistency of standard cement paste ? How is it determined ? 7
- (b)** Why is it necessary to carry out tests on water to be used for making and curing of concrete ? Explain any two tests. 7
- 3. (a)** Explain with a suitable example, the sieve analysis of aggregates. 7
- (b)** Define Flakiness Index. Explain how it is determined. 7
- 4. (a)** Compare the various tests used for finding the workability of concrete. 7
- (b)** What is the role of water present in concrete ? How is it determined ? 7
- 5. (a)** Discuss the factors affecting workability of concrete. 7
- (b)** What are the different types of Pull-out tests ? Explain LOK test. 7
- 6. (a)** Discuss the applications of ultrasonic pulse velocity. 7
- (b)** Explain the properties of a normal distribution curve. What are its uses in quality control ? 7

7. Write short notes on any *two* of the following : *2×7=14*

- (a) Testing of Plywood and Blackboard
 - (b) Impermeability of AC Sheets
 - (c) Resonant Frequency Method
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