ET-581(A)

00374

B.Tech. Civil (Construction Management)

Term-End Examination

June, 2013

ET-581(A) : TESTING FOR QUALITY CONTROL

Time : 3 hours   *Maximum Marks : 70*

*Note :   Question No. 1 is **compulsory**. Attempt any four questions beside question no. 1.*

1.   Fill in the blanks :   2x7=14

(a)   The fineness of cement is determined by _____ apparatus.

(b)   When the cement paste starts losing its _____ it indicates initial setting time is reached.

(c)   If the angularity number is zero, the solid volume of the aggregate is _____ .

(d)   The aggregate impact value should not be more than _____ percent by weight of aggregates used for concrete other than wearing surfaces.

(e)   Mortar bar expansion test is a very reliable test to assessing the _____ of the aggregate.

(f)   Concrete having _____ slump will lead to segregation.

(g)   Brazilian test is used for finding_____ strength of the concrete.

2. (a) What is the significance of specific surface 7
of cement in the compressive strength of
concrete ?

(b) What is the importance of flakiness index ? 7
Explain how flakiness index of aggregate is
determined ?

3. (a) Explain compacting factor test. Discuss 7
how compaction factor is related to the
slump value ?

(b) Write a note on testing of admixture for 7
chloride.

4. (a) Discuss the factors affecting strength of 7
concrete.

(b) What is understood by the principle of 7
rebound ? How rebound technique is used
for finding the strength of concrete ?

5. (a) Write a note on "Water for concreting". 7

(b) Write a note on sampling of concrete and 7
acceptance criteria of it.

6. (a) What are the tests available for tiles ? 7
Explain any one of them.

(b) Write a note on glue adhesion test. 7

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

3½x4=14

   (a) Ultrasonic pulse velocity

   (b) Mix design of concrete

   (c) Compaction of concrete

   (d) Bulking of sand

   (e) Curing of concrete

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