| <b>Enrollment No:</b> | <br>Exam Seat No: |  |
|-----------------------|-------------------|--|
|                       |                   |  |

## **C.U.SHAH UNIVERSITY**

## **Summer Examination-2019**

**Subject Name: Concrete Technology** 

Subject Code: 4TE03CNT1 Branch: B.Tech (Civil)

Semester: 3 Date: 25/03/2019 Time: 02:30 To 05:30 Marks: 70

## **Instructions:**

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

| Q-1        |                | Attempt the following questions:  | (14)        |
|------------|----------------|---|-------------|
| <b>V</b> - | a)             | Which compound of the cement give early strength in concrete.                             | (1)         |
|            | <b>b</b> )     | Enlist various instrument used in find out fineness of cement.                            | (1)         |
|            | <b>c</b> )     | What is the aim to find soundness of cement?  | (1)         |
|            | <b>d</b> )     | Define fine aggregate.  | (1)         |
|            | <b>e</b> )     | Write equation for find out specific gravity of aggregate.                                | (1)         |
|            | <b>f</b> )     | What is bulking of fine aggregate?  | (1)         |
|            | $\mathbf{g}$ ) | Which zone of sand preferable in concrete production?                                     | (1)         |
|            | <b>h</b> )     | Why needle vibrater use during concrete casting?  | (1)         |
|            | i)             | Draw sketch of true slump.  | (1)         |
|            | <b>j</b> )     | Define segregation.   | (1)         |
|            | <b>k</b> )     | Define durability of concrete.  | (1)         |
|            | 1)             | What is the important of workability?   | (1)         |
|            | m)             |   | (1)         |
|            | n)             | Enlist various type of nondestructive test of concrete.                                   | (1)         |
| Atten      | npt any f      | Cour questions from Q-2 to Q-8  |             |
| Q-2        |                | Attempt all questions   | (14)        |
| <b>~</b> – | <b>(A)</b>     | Which are factors affecting strength of concrete? Explain any one of them.                | (7)         |
|            | <b>(B)</b>     | Describe briefly the chemical composition, major compound formed and hydration of cement. | (7)         |
| Q-3        |                | Attempt all questions   | (14)        |
| •          | <b>(A)</b>     | Explain the action and application of water reducing admixture.                           | (7)         |
|            | ( <b>B</b> )   | Write short note on Use of plasticizers in concrete.                                      | (7)         |
| Q-4        |                |   | (14)        |
|            |                | Attempt all questions   |             |
|            | <b>(A)</b>     | State the major compound of the OPC and importance of them.                               | <b>(7</b> ) |
|            | <b>(B)</b>     | Draw flow chart and explain manufacturing of cement by wet process.                       | <b>(7</b> ) |



| (7)<br>(7) |
|------------|
| <b>(7)</b> |
|            |
| (14)       |
| <b>(7)</b> |
| (7)        |
| (14)       |
| <b>(7)</b> |
| (7)        |
| (14)       |
| ,          |
|            |
|            |
|            |

