

GUJARAT TECHNOLOGICAL UNIVERSITY
B.ARCH - SEMESTER- V • EXAMINATION – SUMMER 2017

Subject Code: 1055002**Date: 02/05/2017****Subject Name: Building Construction V****Time: 02.30PM to 05.30PM****Total Marks: 40****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (a)** Draw neat sketches to show any two of the following. **04**
1. Typical R.C.C. column footing 2. Combined footing
3. Precast RCC Piles 4. Friction piles.
- (b)** Discuss the suitability of type of foundation with reference to black cotton soil. **04**
- Q.2 (a)** Write short note on any two of the precast elements typically used repetitively in construction such as lintels, RCC grills, Hollow concrete blocks. **04**
- (b)** Explain briefly singly reinforced and doubly reinforced R.C.C. slab construction. **04**
- OR**
- (b)** What are the chief ingredients of plain cement concrete? **04**
- Q.3** Explain the term curing, Discuss various methods of curing, why is it necessary for concrete to be cured? **08**
- OR**
- Q.3** Draw neat sketch of rolled steel Stanchion steel column showing the base and grillage foundation **08**
- Q.4** Write brief note and explain with sketches any two of the following. **08**
1. Retaining wall 2. Raft foundation
3. Lacing, Battening and bracing.
- OR**
- Q.4** Discuss merits and demerits of riveting, welding and nut and bolt type of connections with reference to structural steel construction for industrial sheds. **08**
- Q.5** Discuss the merits and demerits of Cast-in-situ Vs Precast construction. **08**
- OR**
- Q.5** Draw neat sketches to show various types of rolled steel sections which are used as structural steel members for columns and beams. **08**
