

GUJARAT TECHNOLOGICAL UNIVERSITY
BE Arch. – SEMESTER – III • EXAMINATION – WINTER 2013

Subject Code: 1035002**Date: 03-12-2013****Subject Name: Building Construction - III****Time: 10:30 am - 01:30 pm****Total Marks: 40****Instructions:**

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

- Q.1** (a) What is cement? Enlist various companies manufacturing cement in the market. What are the grades available in cement? What do these grades indicate? **02**
- (b) What is concrete? Enlist components of concrete and their significance. What do the various mixes of concrete indicate? **02**
- (c) What is a 'Dome'? Enlist types of a masonry dome and sketch any two of them. **04**
- Q.2** (a) What is steel? Give uses of steel. Differentiate between Hard & Mild Steel. **02**
- (b) Enlist & sketch various market forms of steel. **04**
- (c) Write a short note on: Defects in steel. **02**
- Q.3** (a) What is a roof? Enlist various types of roof. Sketch in detail any one type of roof from the following. **04**
1. Closed Couple roof
2. Lean-to roof
- (b) Explain Timber Floors. Sketch any one from the following. **04**
1. Plan / Section of timber floor (ground floor)
2. Details of Timber Floor (first floor)
- OR**
- Q.3** (a) Sketch in detail or draft a complete elevation of any one: **04**
1. King Post Timber Truss
2. Queen Post Timber Truss
- (b) Write short note on any one: **04**
- 1) Setting action of cement
- 2) Curing of concrete
- Q.4** (a) Schematic layout of Water Distribution system for a 3 storied building. **04**
- (b) Schematic section of Toilet and basic drainage system for a G+1 building. **04**
- Q.5** (a) What is per capita demand for projecting required water supply? In what unit is it represented? Give factors affecting per capita demand for water supply? Enlist any four companies manufacturing water supply pipes used in buildings? **04**
- (b) Enlist and explain briefly the basic building services. **04**
- OR**
- Q.5** (a) Enlist and sketch: Types of traps. Also mention why are traps used? **04**
- (b) Explain briefly: One pipe and Two pipe systems. **04**
