Seat No.:	Enrolment No
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GUJARAT TECHNOLOGICAL UNIVERSITY BArch- SEMESTER- 3 EXAMINATION - SUMMER 2016

Subject Code: 1035002 Date: 10/05/2016

Subject Name: Building Construction III

Time: 02.30PM – 05.30PM Total Marks: 40

Instructions:

- 1. Attempt all questions.
- 2. Assume suitable data wherever necessary and indicate in drawing/sketch.
- 3. Make suitable sketches wherever required.
- 4. Figures to the right indicate full marks.
- 5. Retain all construction lines.
- 6. Neatness of drawing and lettering is important.
- 7. Mention names and sizes of members wherever they are drawn.
- (a) For an opening of 900 width x 1200 height, at +750mm sill height, in 350 thick brick wall, draw the **Q.1** details of Steel window. Draw front elevation & plan using scale 1:10. Draw enlarged details using 1:2 scale for the steel window given in O. 1(a). 04 **(b)** 0.2 (a) Explain through neat freehand sketches the following steel Trusses: 1.King Post Truss, 2 Queen Post 04 Truss, 3. North light Truss and 4. Bow String Truss. Also mention suitable span for each truss. (b) Draw a neat and proportionate sketch of Roof and explain the following terms: 1. Gable End, 2. Hipped roof,3. Jack Rafters, and 4. Valley. Explain the difference between following terms including their uses: 1.P.C.C. & R.C.C., 2.P.P.C. & 0.3 (a) (b) Explain the following terms: 1. Mild Steel, 2. Tor Steel, 3. T.M.T. Bars, and 4. Corrosion Resistant Steel OR Q.3 Write a short note on Manufacturing Process of Cement. 04 (a) Enlist different types of steel bars and sections available in market for construction industry and also 04 mention their applications /uses.
- Q.4 (a) Draw Timber Ground Floor plan using scale 1:25, and mention names and sizes of timber members. 04
 - (b) Draw a pair of Transverse sections for Timber Ground floor mentioned in Q.4 (a), and mention names and sizes of timber members.
- Q.5 (a) Write at least 10 basic principles of plumbing
 - **(b)** Differentiate between two pipe plumbing system and one pipe plumbing system.

OR

- **Q.5** (a) Draw in plan schematic drainage lay out of an individual residential unit from N.T. to Municipal M.H. **Q4**
 - (b) Draw in plan schematic water supply lay out of an individual residential unit, starting from entry to the plot up to overhead water tank.

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