

GUJARAT TECHNOLOGICAL UNIVERSITY**M. E. - SEMESTER – I • EXAMINATION – WINTER • 2013****Subject code: 711402N****Date: 26-12-2013****Subject Name: Construction Techniques****Time: 10.30 am – 01.00 pm****Total Marks: 70****Instructions:**

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

- Q.1** (a) Describe the construction and operation sequence of climbing scaffolding system with sketches. **07**
(b) What do you mean by Automation? Explain objectives of Automation in Construction. **07**
- Q.2** (a) What is grouting. Discuss grouting materials. Describe various grouting methods. **07**
(b) Enlist various Nano particles. Discuss any one Nano particles in detail. **07**
- OR**
- (b) Discuss the applications and benefits of Nanotechnology in Construction. **07**
- Q.3** (a) Explain slurry trench method for dewatering system? **07**
(b) Discuss limitations and benefits of the slip form system. **07**
- OR**
- Q.3** (a) Explain enabling structures. **07**
(b) Explain various applications of SCC in construction industry. **07**
- Q.4** (a) Discuss advantages and limitations of RMC. **07**
(b) State aims and objectives of modular co-ordination. **07**
- OR**
- Q.4** (a) Describe safety precautions to be followed in erection. **07**
(b) Discuss the fundamentals of modular Co-ordination & justify how it will be beneficial to the construction industry. **07**
- Q.5** (a) Discuss applications and advantages of Rib-Loc technology. **07**
(b) Write short note on: High Volume Fly Ash Concrete. **07**
- OR**
- Q.5** (a) Write short note on: Pervious Concrete. **07**
(b) Discuss about Dowell retrofitting. **07**
