

GUJARAT TECHNOLOGICAL UNIVERSITY**M. E. - SEMESTER – I • EXAMINATION – WINTER • 2014****Subject code: 2711402****Date: 09-01-2015****Subject Name: Construction Techniques****Time: 02:30 pm - 05:00 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) What do you mean by Automation? Explain objectives of Automation in Construction. **07**
(b) Write down the Advantages of Modular Coordination and explain basic principles of Modular Co-ordination. **07**
- Q.2** (a) Write short note on Nanotechnology & concrete. **07**
(b) Explain the essential of repair for the civil structure. **07**
OR
(b) Enlist types of Automation. Explain any one in detail? **07**
- Q.3** (a) What is Underpinning? Why it is carried out? **07**
(b) Enlist and explain dewatering technique in details. (Any Two) **07**
1. Electro Osmosis
2. Freezing and Thawing
3. Multiple Well Point System
- OR**
- Q.3** (a) Explain order and method of removing of formwork. **07**
(b) Write Safety Precautions for Demolition and Dismantling Work **07**
- Q.4** (a) Explain various Grouting procedure and its advantages. **07**
(b) Write "Safety" in Erection. **07**
OR
- Q.4** (a) Discuss the benefits of Lifting technology in Construction. **07**
(b) Explain: **07**
1. Box jacking
2. Pipe jacking
- Q.5** (a) Explain: (Any Two) **07**
1. Open dewatering system
2. Sumps and ditches system
3. Multi well point system
- (b) Discuss the significance of Nanotechnology in construction engineering. **07**
OR
- Q.5** (a) Write as a Construction manager what are the advantages of Construction Techniques for Fast development of construction industry. **07**
(b) "Modular co-ordination can change the scenario of construction industries" **07**
Justify the statement with suitable examples.
