Seat No.: _____ *Enrolment No._____*

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 ñNanotechnology & concreteò	**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) 1. Electro Osmosis 2. Freezing and Thawing 3. Multiple Well Point System	**07**
		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: 1. Box jacking 2. Pipe jacking	**07**
Q.5	**(a)**	Explain: (Any Two) 1. Open dewatering system 2. Sumps and ditches system 3. Multi well point system	**07**
	(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" Justify the statement with suitable examples.	**07**

****