Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

ME - SEMESTER-I(New course) • EXAMINATION - WINTER- 2015

Subject Name: Construction Techniques			Date: 02/01/2016  Total Marks: 70	
		:30 pm to 5:00 pm Total Marks: 7		
	2.	<ul><li>Attempt all questions.</li><li>Make suitable assumptions wherever necessary.</li><li>Figures to the right indicate full marks.</li></ul>		
Q.1	(a) (b)	Write short note on use Robot in construction industry.  Discuss the fundamentals of modular Co-ordination & justify how it will be beneficial to the construction industry.	07 07	
Q.2	(a) (b)	Explain various grouting procedure and its advantages.  Justify "Automation a Fast-Track approach for Indian Construction industry".  OR	07 07	
	<b>(b)</b>	Differentiate between modular zone/plane, controlling zone/plane and coordinating zone/plane with essential sketch.	07	
Q.3	(a) (b)	What is Underpinning? Why it is carried out?  Enlist and explain dewatering technique in details. (Any Two)  1. Open Dewatering System  2. Electro Osmosis Method  3. Multiple Well Point System	07 07	
		OR		
Q.3	(a)	Explain various disease occur to the labour during the working in caisson and also suggest some remedies.	07	
	<b>(b)</b>	Enumerate Demolition method and Write Safety Precautions while working Demolition.	07	
Q.4	(a)	What are the various Geo-membranes used in reservoir construction. Explain with respect to life span/durability and strength parameter.	07	
	<b>(b)</b>	Short note: concrete paving technology.	07	
Q.4	(a)	OR Discuss the benefits of Lifting technology in Construction.	07	
<b>V</b>	(b)	Explain:  1. Box jacking  2. Pipe jacking	07	
Q.5	(a)	Write short note on "Nanotechnology & water proofing".	07	
	<b>(b)</b>	Enlist types of ropes & slings used in erection operations. Explain each one in detail.	07	
<b>~</b> =		OR	e =	
Q.5	(a) (b)	Write down the Construction sequence for Lattice tower Advantage and Disadvantage of scaffoldings.	07 07	