Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E –Ist SEMESTER–EXAMINATION – JULY- 2012

Subject code: 711402N **Date: 07/07/2012**

Subject Name: Construction Techniques

Time: 2:30 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)**	Discuss emergence of new building technology-climbing scaffolding	**07**
	(b)	What is grouting. Discuss grouting materials. Describe various grouting methods.	**07**
Q.2	**(a)**	Discuss significance of Nanotechnology in construction engineering.	**07**
	(b)	Enlist & explain reasons for using Robots in industry.	**07**
		OR	
	(b)	Enlist & explain software related to construction work.	**07**
Q.3	**(a)**	Explain various controls during slip forming and tolerances.	**07**
	(b)	What is meant by temporary structures? Discuss importance of temporary structures.	**07**
		OR	
Q.3	**(a)**	Discuss about (1) Laser screed technology (2) Dowel retrofitting	**07**
	(b)	Write short note on trenchless technology.	**07**
Q.4	**(a)**	Enlist & explain methods of erection.	**07**
	(b)	Explain Basic Principals of Modular Co-ordination.	**07**
		OR	
Q.4	**(a)**	Write short note on mechanical compaction of concrete.	**07**
	(b)	State & discuss essential changes required for Indian construction industries to ensure high economic performance.	**07**
Q.5	**(a)**	Explain self compacted concrete (SCC).State basic key properties required for SCC mix. Explain any two tests.	**07**
	(b)	Write short note on methods of tunneling in Hard Rock.	**07**
		OR	
Q.5	**(a)**	Write short note on Fibers Reinforced Concrete.	**07**
	(b)	State various safety precautions to be observed in handling of precast elements.	**07**

****