Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

PDDC - SEMESTER–II • EXAMINATION – WINTER 2013

Subject Code: X20602 **Date: 23-12-2013**

Subject Name: Construction

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)**	Describe the situations under which pile foundations are preferred, draw the sketch of bearing pile and friction pile.	**07**
	(b)	What is the difference between pre cast concrete piles and cast in situ concrete piles, draw sketch of pre cast concrete piles any section.	**07**
Q.2	**(a)**	What are uses and necessity of cofferdams? Draw the sketch of earth and rock filled cofferdam.	**07**
	(b)	Explain by drawing sketch timber or steel sheeting cofferdam.	**07**
		OR	
	(b)	What is economic height of cofferdam? Explain by table form economic height Of cofferdam.	**07**
Q.3	**(a)**	Draw the sketch of open (well) caisson and describe construction procedure also.	**07**
	(b)	What are the circumstances when the pneumatic caissons are adopted	**07**
		OR	
Q.3	**(a)**	What are the requirements of good form works?	**07**
	(b)	Explain by drawing sketch form work for R.C.C. walls.	**07**
Q.4	**(a)**	Enlist the methods of controlling ground water during foundation excavations; draw the sketch of pumping from well points.	**07**
	(b)	Explain by drawing sketch horizontal well installation point and electro osmosis installations	**07**
		OR	
Q.4	**(a)**	Describe in detail general principles of earthquake resistant building.	**07**
	(b)	Draw the sketch pile load testing platform (jack loading)	**07**
Q.5	**(a)**	Give classification of demolition methods of existing old structures.	**07**
	(b)	Enlist the different types of equipments used for heavy construction works.	**07**
		OR	
Q.5	**(a)**	Explain by drawing sketch working of power shovel	**07**
	(b)	Explain working of tower crane and belt conveyers	**07**

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