Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VI • EXAMINATION – WINTER • 2014

Subject Code: 160601 **Date: 26-11-2014**

Subject Name: Advanced Construction Technology

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)**	Explain under which conditions pile foundation is preferable?	**07**
	(b)	Which points can be considered while selecting the type of pile?	**07**
Q.2	**(a)**	Differentiate between End bearing pile and Friction pile.	**07**
	(b)	Write short note on sand piles with its advantages and disadvantages.	**07**
		OR	
	(b)	Discuss various causes of failure of piles.	**07**
Q.3	**(a)**	What is Coffer Dam? State requirements of a coffer dam.	**07**
	(b)	Describe with sketch single walled cofferdam.	**07**
		OR	
Q.3	**(a)**	Write short note on cellular cofferdam.	**07**
	(b)	Explain the ways by which the leakage can be prevented in coffer dams.	**07**
Q.4	**(a)**	Write short note on box caisson with sketch.	**07**
	(b)	What do you mean by pneumatic caisson? Discuss its construction procedure with sketch.	**07**
		OR	
Q.4	**(a)**	Write short note on tilting of caissons.	**07**
	(b)	What is caisson sickness or diseases? What are the precautions to be taken to avoid caisson sickness?	**07**
Q.5	**(a)**	Explain cement grouting to control ground water in excavations.	**07**
	(b)	Write short note on slip formwork.	**07**
		OR	
Q.5	**(a)**	Discuss planning of earthquake resistant building.	**07**
	(b)	Write short note on demolition plan.	**07**

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