

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE- VI<sup>th</sup> SEMESTER-EXAMINATION – MAY- 2012****Subject code: 160601****Date: 09/05/2012****Subject Name: Advanced Construction Technology****Time: 10:30 am – 01:00 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) State the situations in which pile foundations are preferred. **07**  
(b) Describe with sketch any two cast-in-situ concrete piles. **07**
- Q.2** (a) State advantages and disadvantages of pre-cast concrete piles. **07**  
(b) Write short note on Pile Spacing. **07**
- OR**
- (b) Mention the loads to be taken into account while designing a pile. **07**
- Q.3** (a) State the factors which influence the choice of a particular type of cofferdam. Enlist common types of cofferdams. **07**  
(b) Describe with sketch a typical single wall cofferdam. **07**
- OR**
- Q.3** (a) What is cofferdam? Which are its uses? Enlist common types of cofferdams. **07**  
(b) Describe with sketch cellular cofferdam. **07**
- Q.4** (a) Write short note on Box caisson with sketch. **07**  
(b) Write short note on Pneumatic caisson with sketch. **07**
- OR**
- Q.4** (a) Write short note on well caissons. **07**  
(b) Write short note on tilting of caissons. **07**
- Q.5** (a) Describe method of Well point system for dewatering of foundation soils. **07**  
(b) Write short note on slip form work. **07**
- OR**
- Q.5** (a) Discuss planning (shape) of earthquake resistant building. **07**  
(b) State the requirements of good formwork. **07**

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