

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 Cofferdam? 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**
