

GUJARAT TECHNOLOGICAL UNIVERSITY
BE – SEMESTER – VI (OLD).EXAMINATION – WINTER 2016

Subject Code: 160601**Date: 27/10/2016****Subject Name: Advanced Construction Technology****Time: 10:30 AM to 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) Enlist and explain factors affecting selection of types of plies. **07**
(b) Sketch typical formwork for R.C.C. slab and beam floor with all details. **07**
- Q.2** (a) Differentiate between caissons and cofferdam. **07**
(b) State various methods of pile driving. Describe with sketches any one method. **07**
- OR**
- (b) Differentiate between cast in situ piles and precast piles. **07**
- Q.3** (a) Define cofferdam. Discuss requirements of cofferdam. **07**
(b) What is tilting of caissons. State causes of tilting. How tilting of caissons can be rectified? **07**
- OR**
- Q.3** (a) State situations under which rock fill cofferdam is preferred. Describe construction of rock fill cofferdam with sketches. **07**
(b) Sketch typical pneumatic caisson. State functions of each element of pneumatic caisson. **07**
- Q.4** (a) Explain multistage well point system of dewatering with sketches. **07**
(b) Discuss requirements of good formwork. **07**
- OR**
- Q.4** (a) Describe Electro osmosis method of dewatering. **07**
(b) Explain principles of planning of earthquake resistant buildings. **07**
- Q.5** (a) Enlist methods of demolitions. Explain any one method. **07**
(b) Enlist and explain factors affecting growth, height and structural form of tall structures. **07**
- OR**
- Q.5** (a) Explain 1. Demolition. 2. Taking down. 3. Dismantling. **07**
(b) Explain with sketches pre tensioning and post tensioning methods of pre stressing. **07**
