

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-VI • EXAMINATION – WINTER 2013

Subject Code: 160601

Date: 27-11-2013

Subject Name: Advanced Construction Technology

Time: 02:30 pm to 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 factors affecting selection of pile. **07**
(b) Write a short note on (1) Cassion sickness (2) Formwork for RCC wall **07**
- Q.2** (a) Describe the prevention of leakage in coffer dam. **07**
(b) Clearly differentiate end bearing pile and friction pile. **07**
- OR**
- (b) Describe various types of cofferdams stating the conditions under which they are suitable. **07**
- Q.3** (a) Write a short note on (1) Pneumatic cassion (2) Sinking of cassion **07**
(b) Explain design features of coffer dams. **07**
- OR**
- Q.3** (a) Explain the method of determining the efficiency of pile group. **07**
(b) Write a short note on (1) Under reamed pile (2) Timber pile **07**
- Q.4** (a) Briefly describe the methods of controlling ground water in excavation. **07**
(b) Briefly describe the methods by which ground water flow in excavation can be reduced. **07**
- OR**
- Q.4** (a) Write a short note on (1) Requirement of form work (2) Economy in from work **07**
(b) Write a short note on (1) Timber formwork (2) Steel formwork **07**
- Q.5** (a) Describe the requirements of earthquake resistant construction. **07**
(b) Explain selection of material and mortar for earthquake prone structure. **07**
- OR**
- Q.5** (a) Write short note on (1) Pre-stressed structure (2) Tall structure **07**
(b) Describe various methods of demolition with suitability of each method. **07**
