

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI (OLD) - EXAMINATION – SUMMER 2018

Subject Code:160601

Date:10/05/2018

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) Discuss with neat sketches, the importance and construction procedure of under reamed piles. **07**
(b) What do you understand from Caisson disease? Discuss the methods of its prevention. **07**
- Q.2** (a) Discuss various factors affecting the selection of type of piles. **07**
(b) Define cofferdam. Discuss the uses of cofferdam. **07**
- OR**
- (b) Explain with neat sketches the cellular cofferdam **07**
- Q.3** (a) Explain with neat figures Electro-osmosis. **07**
(b) Explain with neat sketches the form work of RCC column. **07**
- OR**
- Q.3** (a) Discuss economic height of cofferdam. **07**
(b) Explain with neat sketches the form work of RCC stairs. **07**
- Q.4** (a) Discuss planning of earthquake resistant buildings. **07**
(b) What do you understand by monoliths? Describe their method of construction. **07**
- OR**
- Q.4** (a) Discuss design consideration of tall structures. **07**
(b) Explain repair, restore and retro-fitting. **07**
- Q.5** (a) Explain different types of pile hammers with their advantages and disadvantages. **07**
(b) What is base isolation? Explain various methods of base isolation. **07**
- OR**
- Q.5** (a) Discuss the advantages and disadvantages of chemical grouting method for underground water control. **07**
(b) What is pre-stressing? Explain various methods of pre-stressing. **07**
