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## GUJARAT TECHNOLOGICAL UNIVERSITY

BE – SEMESTER – VI EXAMINATION – WINTER 2015

Subject Code:160601 Date:15/12/ 2015 **Subject Name: Advanced construction Technology** Time:2:30pm to 5:00pm **Total Marks: 70 Instructions:** 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks. 07 Q.1 (a) What are the factors that affects the selection of piles? Discuss the uses of piles. 07 **(b** ) **Q.2** What are the causes of failures of piles? **07** (a) How you will make choice between caisson and cofferdam? 07 (b ) OR Write short note on rock fill cofferdam. **07** ) Q.3 Explain Repair, Restoration and Retrofitting. 07 (a) Describe in brief the methods of demolition. **07 (b** ) OR **Q.3** What are the advantages and disadvantages of cast in situ concrete piles? **07** (a) What types of loads are coming on the caissons? 07 **(b** ) What are the requirements of good form work? **07 Q.4** (a) Explain with neat sketch, the form work of RCC column. **07 (b** ) OR Describe the methods employed for the floating of caisson. 0.4 07 (a) Discuss the load tests on piles. (b 07 ) Q.5 Calculate the group efficiency of 36 piles arranged in 6 rows and 6 columns. 07 (a) How you will prevent leakage in cofferdam? **07** (b ) OR What are the important points to be considered for safe demolition of structure? **07** Q.5 (a) Discuss the economic height of cofferdam. **07 (b** )

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