

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI (NEW) - EXAMINATION – SUMMER 2016

Subject Code:2160601

Date:06/05/2016

Subject Name: Advanced Construction and Equipments

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) What is a pneumatic caisson? Where is it adopted? How is it constructed? 07
(b) What is the meaning of the term pile foundation? Explain uses of piles. 07

- Q.2 (a) Discuss in detail Ohio river type wood sheeting cofferdam. 07
(b) Mention advantages and disadvantages of cast in situ and pre cast concrete piles. 07

OR

- (b) What is cofferdam? Which are its uses? Enlist common types of cofferdams. 07

- Q.3 (a) Enlist various methods of controlling ground water during construction and Suggest their suitability for different soil conditions. Explain with sketches any two methods. 07
(b) Describe method of well point system for dewatering of foundation soils. 07

OR

- Q.3 (a) Write short note on Vibroflotation. 07
(b) Explain formwork for big arches. 07

- Q.4 (a) List methods of demolition and explain any Two. 07
(b) Write short note on Tall structure. 07

OR

- Q.4 (a) Define following terms (1) Depreciation (2) Investment cost (3) Obsolescence cost (4) Down Time (5) Scrape value (6) Replacement cost (7) Maintenance charges 07
(b) Discuss advantages and disadvantages of Scrapers. 07

- Q.5 (a) What is concrete pump? What are the advantages of transportation of concrete by pumps? 07
(b) Describe briefly the earth rammers. 07

OR

- Q.5 (a) Draw a neat sketch of belt conveyor system and describe its components. 07
(b) What are the uses of power shovels? Describe with neat sketch basic parts and operation of power shovel. 07
