Seat No.:	Enrolment No.

## GUJARAT TECHNOLOGICAL UNIVERSITY PDDC- SEMESTER- II EXAMINATION – SUMMER-15

Subject Code:X20602

**Subject Name: Construction** Time: 10.30am-01.00pm **Total Marks: 70 Instructions:** 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks. 0.1 (a) Enlist the types of deep foundations, draw the sketch of precast concrete piles 07 And describe advantages and disadvantages What is the necessity of cofferdams? Explain by drawing sketch earth fill 07 cofferdam. (a) Where the non load bearing piles are used? Draw the sketch of steel and timber **Q.2** 07 Sheet piles. (b) Define the caisson foundation, describe the" open caisson well "foundation. 07 OR **(b)** How the ground water is controlled during excavation? Describe the procedure 07 Of pumping from open sumps. **Q.3** (a) What are the requirements of good form works? Draw the sketch of form work 07 For columns. **(b)** What are the types of centering? Explain the timber truss centering. 07 OR **Q.3** (a) Describe the general principles of earthquake resistant buildings. **07 (b)** Draw the sketch of double acting pile driving hammer, describe in brief. 07 Give classification of construction equipments, also mention factors for 0.4 07 Selection according to site requirements **(b)** Describe the working of tower crane by drawing sketch. 07 OR (a) Explain "economic life of equipments" draw the sketch of power shovel 07 **Q.4** What is the economic height of cofferdam? Explain by showing table 07 (a) When the old structures are required to be demolished? What are the Q.5 07 Precautions to be taken while demolishing? (b) What are the applications of prestressed concrete? Explain by drawing sketch 07 Column type pretensioning bed OR (a) Explain by drawing sketch freezing process of ground water controlling. Q.5 07 Draw the sketch of symmetrical plans (desirable) and unsymmetrical 07 plans (undesirable) for earthquake resistant structures.

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Date: 03/06/2015