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GUJARAT TECHNOLOGICAL UNIVERSITY PDDC - SEMESTER-II • EXAMINATION – WINTER • 2014

Date: 30-12-2014 **Subject Code: X20602 Subject Name: Construction** Time: 02:30 pm - 05:00 pm **Total Marks: 70 Instructions:** 1. Attempt any five questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. **Q.1** Give classification of piles according to function and material, describe 07 (a) The friction piles. What is necessity of cofferdams? Explain by drawing sketch rock filled **(b)** 07 cofferdams. **Q.2** Draw the sketch of pile driving hammer any one type, also describe its **07** (a) working. Distinguish between cast in situ concrete piles and pre cast concrete piles. **(b)** 07 Draw the sketch of pre cast concrete piles. What is caisson foundation? Explain in detail construction procedure of 0.3 07 (a) pneumatic caissons. Explain by drawing sketch power shovel and dragline excavators also mention **(b)** 07 its uses. **Q.4** What precautions to be taken while demolishing old structures? 07 (a) Explain how the structures can be constructed earthquake resistant? Describe 07 **(b)** the provision of corner reinforcement. 07 0.5 Draw the sketch of form work of columns and beams. (a) How the ground water can be controlled during construction. Explain well **(b) 07** point system for controlling ground water. Describe by drawing sketch timber piles and metal piles also mention its uses. 07 **Q.6** (a) What is function of pile shoe and pile caps? Explain by drawing sketch. **(b) 07 Q.7** Explain by drawing sketch working of tower crane and gantry cranes. **07** (a) Enlist the different drilling equipments describe in detail hammer drills 07 **(b)**
