Seat No.:	Enrolment No.

Subject Code:2141309

## GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-IV (New) EXAMINATION – WINTER 2015

Date:06/01/2016

Subject Name: Soil & Water Conservation Engineering Time: 02:30pm to 05:00pm **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 soil conservation? Explain the scope of soil conservation in detail 07 (b) Enlist the different Soil Erosion Control methods. How can soil Erosion be **07** controlled using biological method? **Q.2** (a) Write down the 'universal soil loss equation' & explain it. 07 **(b)** Write a short note on Soil Quality management. 07 OR **(b)** Write a short note on Grass land management. 07 0.3 (a) Explain Soil erosion due to wind and its control. 07 **(b)** Define Water loss. Explain the Different types of Water losses. 07 OR (a) What is Water Conservation? Enlist the different water conservation methods. **Q.3** 07 Explain Water harvesting. **(b)** Explain Flood plain zone management. 07 0.4 (a) Write a short note on reducing the impact of flooding. 07 **(b)** Explain in Brief: Ground Water recharge through wells. 07 .OR (a) Discuss: pollution/ Contamination of water quality due to agricultural practices 07 0.4 (b) Write a short note on check dam along with a neat sketch. **07** Q.5 (a) Define Soil Erosion. Enlist & Explain different types of Soil Erosion. 07 **(b)** What is Aquifer? How it is useful for the water conservation. **07** OR Q.5 (a) Explain the causes of soil erosion. 07 07 **(b)** Write a short note on Economics of water resources utilization. \*\*\*\*\*