

GUJARAT TECHNOLOGICAL UNIVERSITY

Diploma Engineering. Sem-VI - Examination –May- 2011

Subject code:360607

Subject Name: Environmental Engineering

Date:23/05/2011

Time: 02.30 pm – 05.00 pm

Total Marks: 70

Instructions:

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** Explain following terms: **14**
 (1) Characteristics of water,
 (2) Impurities of water,
 (3) Examination of Water,
 (4) Standard of potable water quality,
 (5) Flow equalizing,
 (6) Detention period,
 (7) Selection of source of water
- Q.2 (a)** Explain with neat sketch: **07**
 (1) Bar racks and screen,
 (2) Sedimentation tank
- (b)** Differentiate: **07**
 (1) Reuse and Recycle
 (2) Batch process and Continuous Process
OR
- (b)** Differentiate: **07**
 (1) General waste and Hazardous waste
 (2) Direct and indirect Hazards
- Q.3 (a)** Write note on settleable solids **07**
(b) List design criteria for flocculate **07**
OR
- Q.3 (a)** List classifications of sedimentation tank for water treatment plant **07**
(b) List sources of sludge. **07**
- Q.4 (a)** Explain Principles of dewatering **07**
(b) List types of coagulants **07**
OR
- Q.4 (a)** What is a dose? How it is decided? **07**
(b) Explain slow sand filters **07**
- Q.5 (a)** Explain grit removal **07**
(b) List types of clarifiers. Draw neat sketch of any one **07**
OR
- Q.5 (a)** Explain back wash in rapid sand filters **07**
(b) Write short note on reverse osmosis. **07**
