

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- IVth SEMESTER-EXAMINATION – MAY/JUNE- 2012****Subject code: 141304****Date: 31/05/2012****Subject Name: Water Pollution & Control****Time: 10:30 am – 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 coagulation process and explain its important in waste water treatment. **07**
(b) Give the detailed classification of filtration processes & explain depth filtration. **07**

- Q.2** (a) Draw a neat sketch of conventional Waste water treatment plant and explain the different units. **07**
(b) (i) Explain the difference between secondary treatment and advanced waste water treatment. **07**
(ii) Differentiate between discrete settling and flocculant settling.

OR

- (b) (i) Enlist and explain the functional zones of sedimentation tank. **07**
(ii) Give the classification of screens.

- Q.3** (a) Explain the sources and effects of following parameters in water and waste water: (1) Colour (2) Solids (3) Organic matter **07**
(b) (i) Explain the mechanism of removal of organic matter in a Trickling Filter. **07**
(ii) Draw a neat sketch of conventional Activated sludge process and explain its different components

OR

- (a) Explain the different Sources of Water Pollution and also gives idea about Pathological and Toxic Effect. **07**
(b) Explain aerobic and anaerobic treatment processes. Highlight the advantages of anaerobic processes over aerobic processes. **07**

- Q.4** (a) Enlist and explain the effects of water pollution. **07**
(b) What is the Equalization? What is its importance in wastewater treatment? **07**

OR

- (a) What is Softening Process. Explain its Application on Water pollution **07**
(b) Explain with a neat sketch, construction and working of Slow Sand Filter. **07**

- Q.5** (a) What is Disinfection Process. Explain its Application on Water pollution **07**
(b) What is Thermal pollution? What are the methods to prevent the thermal pollution. **07**

OR

- (a) Explain the Sources and Effect related to Oil pollution **07**
(b) Explain the Working Principle of Rotating Biological Filter.
