

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. Sem. – IInd - Examination – June/July- 2011

Subject code: 1721702

Subject Name: Industrial Water and Waste water Treatment

Date: 24/06/2011

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) Name various methods to reduce Quantity of waste discuss any two in details. **07**
(b) Name various methods to reduce strength of waste discuss any two in details. **07**
- Q.2** (a) Discuss effects of Inorganic salts and heated water on streams. **07**
(b) Describe factors affecting sampling. **07**
- OR**
- (b) Discuss role of Algae in removal of heavy metals. **07**
- Q.3** (a) Discuss methods of Neutralization **07**
(b) Why equalization is necessary? Discuss On Line and Off Line equalization. **07**
- OR**
- Q.3** (a) Discuss benefits of Waste treatment. **07**
(b) Discuss the sources and treatment of dairy waste. **07**
- Q.4** (a) Explain Vacuum Filtration. **07**
(b) Discuss “Save all “processes in Pulp & Paper mill waste. **07**
- OR**
- Q.4** (a) Explain with Sketch Zimpro process. **07**
(b) Discuss various sources of metal plating waste. **07**
- Q.5** (a) Discuss Alkaline chlorination, reduction, precipitation methods for treatments of metal plating waste. **07**
(b) Discuss various radioactive waste generated from Atomic power plant. **07**
- OR**
- Q.5** (a) Discuss various waste generated and treatment in thermal power plant. **07**
(b) Discuss treatment of Radioactive waste. **07**
