

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII • EXAMINATION – WINTER 2013

Subject Code: 171303

Date: 07-12-2013

Subject Name: Industrial Water Pollution and 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) Justify “Why there are different discharge standards for different environmental sinks?” 07
- (b) Write a note on causes and effects of ‘Oil Pollution’. 07
- Q-2 (a) Write a note on ‘Waste management hierarchy’. 07
- (b) Explain how industrial wastewaters differ from domestic wastewater. 07
- OR
- (b) Explain the Phenomena of Stratification and overturn of Lake. 07
- Q-3 (a) What is volume reduction? Enlist the different techniques of volume reduction and explain any one in detail. 07
- (b) Differentiate between ‘Stream standards’ and ‘Effluent Standards’ giving the advantages and disadvantages of both. 07
- OR
- Q-3 (a) Write a short note on (i) self purification of streams (ii) DO sag Curve. 07
- (b) Give the Classification of lakes based on productivity and Biological Zones. 07
- Q-4 (a) (i) What is “Proportioning”? (ii) Explain with the help of an example “Population Equivalent”. 07
- (b) Given an option to select any environmental sink, which one will you select for discharge of effluents? Why? 07
- OR
- Q-4 (a) Write a brief note on concept and advantages of Common Effluent Treatment Plants. 07
- (b) Explain the importance of equalization and neutralization in treatment of industrial wastewater.
- Q-5 (a) What is strength reduction? Prepare a list of strength reduction techniques and explain any two. 07
- (b) Write down the manufacturing process, sources and treatment of wastewater for any one of the following industries:
(i) Starch (ii) Fertilizer (iii) Sugar.
- OR
- Q-5 (a) Enlist the different processes and equipments to remove oil and grease from wastewater. Explain any one with the help of neat sketch. 07
- (b) Highlight the primary and secondary benefits of pollution control 07
