

GUJARAT TECHNOLOGICAL UNIVERSITY
B. E. - SEMESTER – VII • EXAMINATION – WINTER 2012

Subject code: 171304**Date: 28/12/2012****Subject Name: Cleaner Production and Waste Utilization****Time: 10.30 am - 01.00 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** (a) Define Cleaner Production and highlight its benefits **07**
(b) Discuss the importance of Heat Recovery from flue gases along with methods available. **07**

- Q.2** (a) Write a short note on “Good Housekeeping” **07**
(b) Discuss Cleaner Production practices. **07**

OR

- (b) Write a short note on “Recycling and reuse of effluent from Textile unit. **07**

- Q.3** (a) Explain the application of CP in a Thermal Power Plant **07**
(b) Explain the concept of ‘Recycle’ and ‘Reuse’ highlighting the difference between the two. **07**

OR

- Q.3** (a) Explain the application of CP in a Dairy industry **07**
(b) What do you mean by Energy Audit? Explain the importance of Energy Audit. **07**

- Q.4** (a) Enlist the methods of Energy Audit. Explain any one in detail. **07**
(b) Write a short note on Recycle in and reuse of effluents from textile units **07**

OR

- Q.4** (a) Enlist various treatment options available for facilitating reuse of wastewater. Also enlist various reuse applications of wastewater. **07**

- Q.4** (b) Write a short note on Recycling and reuse of dairy effluent. **07**

- Q.5** (a) Enlist the types of heat recovery boilers and write a note on any one. **07**
(b) Explain the shell and tube heat exchanger. **07**

OR

- Q.5** (a) Explain the sequential methodology for Cleaner production. **07**
(b) Explain the measures for Good Housekeeping in a Pharmaceutical industry. **07**
