GUJARAT TECHNOLOGICAL UNIVERSITY
BE SEM-VII Examination-Nov/Dec.-2011

Subject code: 171304       Date: 29/11/2011
Subject Name: Cleaner Production and Waste Utilization
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) Explain importance and need to implement good house keeping. 07
(b) Enlist cleaner production methodology. 07

Q.2 (a) Explain selection of cleaner production solutions and implement of CP solution. 07
(b) Explain heat recovery boiler with one stack and fan.

OR
(b) Explain heat recovery boiler with one stack and no fan. 07

Q.3 (a) Which CP tools you have suggested to reduce automobile pollution. Discuss in detail. 07
(b) Explain with example how CP is useful in Dye manufacturing unit.

OR
Q.3 (a) Enlist CP tools. 07
(b) Explain with example how CP is useful in Fertilizer industry. 07

Q.4 (a) Explain LMTD with temperature profile for parallel and counter flow. 07
(b) How heat recovery is important in cleaner production.

OR
Q.4 (a) Write short note on types of heat exchanger. 07
(b) Write short note on Heat recovery. 07

Q.5 (a) Explain shell and tube heat exchanger. 07
(b) Explain heat recovery boiler with two stack and fan.

OR
Q.5 (a) Write short note on benefits of heat recovery in steam boiler. 07
(b) Explain heat recovery boiler with two stack and no fan. 07

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