

GUJARAT TECHNOLOGICAL UNIVERSITY
M. E. - SEMESTER – IV • EXAMINATION – SUMMER • 2014

Subject code: 743001**Date: 04-06-2014****Subject Name: Cleaner Production****Time: 02:30 pm - 05:00 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** What is the difference between End of Pipe Treatment and Cleaner Production? Compare these techniques with its advantages and disadvantages. **14**
- Q.2** (a) Discuss the difference between cleaner production and cleaner technology. **4**
(b) Discuss Good house keeping in detail. **10**
- OR**
- (b) Discuss cleaner production in paper manufacturing industry from waste paper as raw material. **10**
- Q.3** (a) Explain- Energy Audit as a part of cleaner production. **7**
(b) Explain in detail the cleaner production techniques. **7**
- OR**
- (a) Explain financial analysis of cleaner production. **7**
(b) Write in brief about major challenges for implementing Cleaner Production in a Chemical Industry. **7**
- Q.4** (a) Discuss in detail the six step methodology in cleaner production. **14**
- OR**
- (a) Discuss cleaner production with its benefits. **7**
(b) Discuss the implementation of Cleaner Production in a plant manufacturing Vinyl sulphone. **7**
- Q.5** (a) Role of C.P. in survival and sustainable development of Chemical Industries. **7**
(b) Explain in detail methodology of energy audit. **7**
- OR**
- (a) Give an example of cleaner production in any one chemical process industry. **7**
(b) Write the steps to be considered for savings energy in steam system in a Chemical process industry. **7**
