

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

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

**Subject code: 711801**

**Date: 13-06-2014**

**Subject Name: Air Pollution Control & Management**

**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** (a) Discuss the Plume Behavior in detail with neat sketch. **07**  
(b) Explain the primary and Secondary meteorological parameters. **07**
- Q.2** (a) Write a short note on Stability condition. **07**  
(b) Derive Lapse Rate. **07**
- OR**
- (b) What is Temperature Inversion? Explain Heat Island Effect. **07**
- Q.3** (a) Write a short note on Stack Monitoring Kit with neat sketch. **07**  
(b) What is Iso kinetic sampling? Discuss in brief. **07**
- OR**
- Q.3** (a) Write a short note on High Volume Air sampler. **07**  
(b) Write a short note on Ambient Air Quality Standards. **07**
- Q.4** (a) Discuss Advantages and disadvantages of Fabric Filters. **07**  
(b) Write a short note on Cyclone separator with neat sketch. **07**
- OR**
- Q.4** (a) Enlist the selection criteria for Air Pollution Control Equipment. **07**  
(b) Explain Design Criteria for absorption tower. How to find number of transfer unit? **07**
- Q.5** (a) Write a short note on Combustion control methods of NO<sub>x</sub>. **07**  
(b) Discuss application of different air pollution control equipment. **07**
- OR**
- Q.5** (a) Differentiate Between Single alkali and Double Alkali Scrubbing. **07**  
(b) Discuss Air pollution Control management in Metro City. **07**

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