

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

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

# GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V • EXAMINATION – SUMMER • 2014

**Subject Code: 151305**

**Date: 24-06-2014**

**Subject Name: Air 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) Describe the Effects of Air Pollution On Human, Vegetation and Materials. **07**  
(b) List important meteorological parameter that influencing Air Pollution and explain any one in Detail. **07**
- Q-2** (a) Explain A/F ratio in detail. **07**  
(b) Write a short note on emission reduction by engine design changes. **07**
- OR
- (b) Write a short note on Alternative Fuel **07**
- Q-3** (a) What is Maximum Mixing depth? How it is determined? What is its importance? **07**  
(b) Explain effects of Photochemical Smog. **07**
- OR
- Q-3** (a) What is 'Dry Adiabatic lapse rate' and the 'Environmental lapse Rate'? Explain. **07**  
(b) Explain heat island effect. **07**
- Q-4** (a) Explain Lime stone Scrubbing for Control of Sox. **07**  
(b) Write a short note on Cyclone separator. **07**
- OR
- Q-4** (a) Explain NO<sub>x</sub> control by: A) Absorption by liquid. B) Catalytic Reduction. **07**  
(b) Explain in brief Electrostatic Precipitator. **07**
- Q-5** (a) Explain following Episodes: **07**  
(i) Meuse valley (ii) Donora (iii) London (iv) Bhopal (v) Los Angeles.  
(b) What is noise pollution? Describe sources of noise pollution. **07**
- OR
- Q-5** (a) What is wind rose diagram? How it is constructed? Explain its Application. **07**  
(b) Explain the causes and control of Odour problem. **07**

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