

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V • EXAMINATION – WINTER 2013

Subject Code: 151305

Date: 09-12-2013

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.

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|-----|---|----|
| Q-1 | (a) Give the classification of Air Pollutants and sources of air pollution. | 07 |
| | (b) Describe the Effects of Air Pollution On Human, Vegetation and Materials. | 07 |
| Q-2 | (a) Explain following Episodes:
(I) Meuse valley (ii) Donora (iii) London (iv) Bhopal (v) Los Angeles. | 07 |
| | (b) Explain Absorption and Dispersion along with examples. | 07 |
| | OR | |
| | (b) Explain general characteristics of plumes. | 07 |
| Q-3 | (a) Explain A/F ratio in detail. | 07 |
| | (b) Write a short note on emission reduction by engine design changes. | 07 |
| | OR | |
| Q-3 | (a) Write a short note on Alternative Fuel. | 07 |
| | (b) Explain effects of Photochemical Smog. | 07 |
| Q-4 | (a) Define a wind rose. Explain the importance of wind roses in air pollution studies. | 07 |
| | (b) Explain causes and control of Odour Problem. | 07 |
| | OR | |
| Q-4 | (a) What is noise pollution? Describe sources of noise pollution | 07 |
| | (b) What is Maximum Mixing depth? How it is determined? What is its importance? | 07 |
| Q-5 | (a) Write a short note on Cyclone separator | 07 |
| | (b) Write Short Notes on
(A) Exhaust emissions | 07 |
| | (B) Crank-case emissions | |
| | OR | |
| Q-5 | (a) Write a short note on electrostatic precipitators. | 07 |
| | (b) Explain Limestone scrubbing for control of Sox. | 07 |
