

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VI • EXAMINATION – SUMMER • 2014****Subject Code: 163701****Date: 21-05-2014****Subject Name: Principle of Air and Noise Pollution****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) Siting criteria for Air Quality Monitoring Stations **07**  
 (b) What are the differences between NAAQS, 2009 and NAAQS, 1994? **07**
- Q.2** (a) Define a Wind Rose. Explain the importance of Wind Roses in air pollution studies. **07**  
 (b) What is the definition of Air Pollution? Define STR system in air pollution. **07**  
**OR**  
 (b) Give the classification of Air Pollutants and sources of air pollutants. **07**
- Q.3** (a) Describe the Effects of different Air Pollutants on Human, Vegetation and Materials. **07**  
 (b) Explain following Episodes: (i) Meuse valley, (ii) London, (iii) Bhopal **07**  
**OR**
- Q.3** (a) What are Dry Adiabatic Lapse Rate, Environmental Lapse Rate and Wet Adiabatic Lapse Rate? **07**  
 (b) Write short notes on **07**  
 1) SODAR 2) ESP 3) Emission factor
- Q.4** (a) Write a detailed note on Plume Behavior. **07**  
 (b) What is Mixing Height what are the utilities of Mixing Height in air pollutants dispersion? **07**  
**OR**
- Q.4** (a) Write a short note on data analysis and interpretation **07**  
 (b) What are the objectives of Air Quality Monitoring program? **07**
- Q.5** (a) Difference between Gaussian dispersion model and box model. **07**  
 (b) Write a short note on Sonic Boom and its consequences. **07**  
**OR**
- Q.5** (a) Explain the ambient noise monitoring methodology and highlight the role of meteorology in ambient noise situation. **07**  
 (b) Explain about the source and effects of noise pollution. **07**

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