Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VI • EXAMINATION – SUMMER • 2015

Subject Code: 163701 **Date: 04/05/2015**

Subject Name: Principle of Air and Noise Pollution

Time:10.30am-01.00pm **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)**	Explain about the source and effects of noise pollution.	**07**
	(b)	Write a short note on Sonic Boom and its consequences	**07**
Q.2	**(a)**	Siting criteria for Air Quality Monitoring Stations	**07**
	(b)	Define a Wind Rose. Explain the importance of Wind Roses in air pollution studies.	**07**
		OR	
	(b)	What is the definition of Air Pollution? Define STR system in air pollution.	**07**
Q.3	**(a)**	Give the classification of Air Pollutants and sources of air pollutants.	**07**
	(b)	Explain following Episodes: (i) Meuse valley, (ii) London, (iii) Bhopal	**07**
		OR	
Q.3	**(a)**	What are the differences between NAAQS, 2009 and NAAQS, 1994?	**07**
	(b)	Describe the Effects of different Air Pollutants on Human, Vegetation and Materials.	**07**
Q.4	**(a)**	Explain the ambient noise monitoring methodology and highlight the role of meteorology in ambient noise situation.	**07**
	(b)	Difference between Gaussian dispersion model and box model.	**07**
		OR	
Q.4	**(a)**	What are Dry Adiabatic Lapse Rate, Environmental Lapse Rate and Wet Adiabatic Lapse Rate?	**07**
	(b)	Write a short note on data analysis and interpretation	**07**
Q.5	**(a)**	What are the objectives of Air Quality Monitoring program?	**07**
	(b)	Write short notes on 1) SODAR 2) ESP 3) Emission factor	**07**
		OR	
Q.5	**(a)**	What is Mixing Height what are the utilities of Mixing Height in air pollutants dispersion?	**07**
	(b)	Write a detailed note on Plume Behavior.	**07**

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