

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI (NEW) - EXAMINATION – SUMMER 2017****Subject Code: 2161302****Date: 27/04/2017****Subject Name: Fundamentals of Air Pollution****Time: 10:30 AM to 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	Short Questions	14
	1 Define Air Pollution.	
	2 Define Aerosol.	
	3 What is Air fuel ratio?	
	4 What do you mean by Sound power level?	
	5 What is Mist?	
	6 Define Fog.	
	7 Define Noise.	
	8 What is Odour?	
	9 Define Climate.	
	10 Define Weather.	
	11 What is Odour detection threshold?	
	12 What do you mean by Turbulence?	
	13 What is Sound intensity?	
	14 What is Soot?	
Q.2	(a) Enlist various sources of Odour.	03
	(b) Give classification of Air pollutants.	04
	(c) Describe the classification of dispersion of Plume behavior.	07
	OR	
	(c) Write a short note on Heat island effect.	07
Q.3	(a) What do you mean by Lapse rate?	03
	(b) What is MMD?	04
	(c) Describe the effects of Sulfur dioxide on human health, vegetation & materials.	07
	OR	
Q.3	(a) Enlist various sources of Air pollutants.	03
	(b) Differentiate between ALR and ELR.	04
	(c) Explain Wind rose diagram and enlist its application.	07
Q.4	(a) Enlist various sources of Noise pollution.	03
	(b) Write down the factors affecting meteorological condition.	04
	(c) Explain the Eddy diffusion model.	07
	OR	
Q.4	(a) Enlist the types of Inversion.	03
	(b) Write down the effects of Noise on human.	04
	(c) Explain the Gaussian dispersion model.	07
Q.5	(a) What do you mean by Iso-kinetic condition?	03
	(b) Give characterization of primary Odour.	04
	(c) Write explanatory note on Stack sampling technique.	07
	OR	

- Q.5** (a) Enlist the methods of collecting gaseous samples from stack. **03**
(b) Enlist odour control techniques and explain any one. **04**
(c) Write a short note on Ambient air quality standards. **07**
