Seat No.:	Enrolment No.
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Subject Code: 2161302

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

BE – SEMESTER – VI (NEW).EXAMINATION – WINTER 2016

Date: 22/10/2016

S	ubje	ect Name: Fundamentals of Air Pollution	
T	ime	: 10:30 AM to 01:00 PM Total Marks: 70	
Iı	nstruo	1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks.	
Q.1	(a) (b)	Explain in detail sources & types of air pollutants Write a short note: Wind rose	07 07
Q.2	(a) (b)	Explain the aesthetic, climatic, and related effects of Air Pollution Explain the available measurement methods for ambient air quality parameters <b>OR</b>	07 07
	<b>(b)</b>	Explain in detail isokinetic sampling.	07
Q.3	(a) (b)	Discuss lapse rate in detail Which factors you will consider for controlling industrial noise?  OR	07 07
Q.3	(a) (b)	Enlist the types of Inversion and explain any two in detail. Write a short note: Sources of Noise	07 07
Q.4	(a) (b)	Explain the term: Urban heat island effect Determine the effective height of a stack, if the stack is 203 m tall with 1.07 m inside diameter. Wind velocity is 3.56 m/s. Air temperature is 13 °C. Barometric pressure is 1000 millibars. Stack gas velocity is 9.14 m/s having 149 °C temperature.	07 07
		OR	
Q.4	(a) (b)	Write a short note: Dispersion models Write a short note: Maximum mixing depth	07 07
Q.5	(a) (b)	Explain in detail measurement units for air pollution. Explain the conversion factors for the same.  What is Odour? How it is measure? Explain the sources of odour.	07 07
Q.5	(a) (b)	OR  Draw only the neat sketch of general characteristics of stack plumes.  Enlist the methods of Odour control and explain any two in detail.	07 07

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