Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

## ME- SEMESTER II - EXAMINATION - SUMMER 2015

<b>Subject Code: 2721710 Date:26/05/</b>		2015	
Tin	Subject Name: Air & Noise Pollution Control Time: 2:30 PM - 5:00 PM Instructions:  Total Mark		: 70
	1. 2.	Attempt all questions.	
Q.1	(a) (b)	Explain Air pollution indices in detail.  Describe the sources of air pollution in detail.	07 07
Q.2	(a) (b)	Describe wind rose diagram and its application in the analysis of air pollutants. Explain the general characteristics of stack plumes.  OR	07 07
	<b>(b)</b>	Discuss the meteorological parameters that influence the air pollution.	07
Q.3	(a) (b)	Mention the objectives of stack monitoring. Draw sketch for the sampling train of stack monitoring train. And explain the functions of each part.  What is Gaussian Plume theory and explain Gaussian plume models.	07 07
	(6)	OR	07
Q.3	(a)	What is ambient measurement in context of air pollution? What are national ambient air quality standards?	07
	(b)	A factory uses 2, 20,000 litres of furnace oil per month. If for 1 ML of oil used per month, the particulate matter emitted is 3.0 tonnes per year, SO <sub>2</sub> emitted is 60.0 tonnes per year, NO <sub>x</sub> emitted is 7.5 tonnes per year, hydrocarbons emitted are 0.37 tonnes per year and CO emitted per year is 0.52 tonnes, then calculate the height of the chimney required to be provided for safe dispersion of the pollutants. Assume working days of year as 300 days.	07
Q.4	(a) (b)	Explain sampling procedure for ambient air monitoring.  With a neat sketch, explain the principle, construction and working of a cyclone separator.	07 07
		OR	
Q.4	(a) (b)	List out various gaseous control methods and explain any one of them in detail. Describe settling chambers and its application in industries.	07 07
Q.5	(a)	Discuss various types of automobile emissions and its contribution to overall vehicular pollution.	07
	(b)	Write short note on Inspection and certification program for automobiles on road.	07
		OR	
Q.5	(a)	Compare the noise levels of urban area and rural area. Put your comments on the comparison.	07
	(b)	Describe remedial measures for abating the noise nuisance.	07

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