Seat No.:	Enrolment No
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GUJARAT TECHNOLOGICAL UNIVERSITY

BE – SEMESTER – VI EXAMINATION – WINTER 2015

Subject Code:161302 Subject Name: Fundamentals of Air Pollution			Date:17/12/ 2015	
Ti	•	30pm to 5:00pm Total Marks: 70		
	1. 2. 3.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.		
Q.1	(a) (b)	What is lapse rate? Derive the lapse rate $dt/dz = 1^0 C/100 m$. Give the national ambient air quality standards & noise standards.	07 07	
Q.2	(a) (b)	Classify the factors affecting meteorological conditions. With proper illustration describe heat island effect. OR	07 07	
	(b)	Write short note on MMD.	07	
Q.3	(a) (b)	Define sound and noise. Also explain the sources and effects of noise. Which are the sources of odours? Discuss control measures. OR	07 07	
Q.3	(a) (b)	What is air pollution? Classify the generation points of air pollution. Explain primary and secondary air pollutants with examples.	07 07	
Q.4	(a) (b)	Write down the effects of SO ₂ , NO _x and CO on human health. Describe the general characteristics of plume behaviour. OR	07 07	
Q.4	(a) (b)	Write down the effects of SO ₂ , NO _x and CO on vegetation and buildings. Explain the following terms. (i) Aerosol (ii) Smoke (iii) Water vapour (iv) Mist (v) Dust (vi) Photochemical Smog (vii) soot	07 07	
Q.5	(a) (b)	Explain wind rose diagram with its applications. Enlist five air pollution episodes and describe any two in brief. OR	07 07	
Q.5	(a) (b)	Write short note on wind velocity profile. Explain the Gaussian dispersion model.	07 07	
