

GUJARAT TECHNOLOGICAL UNIVERSITY**B. E. Sem-VI Examination May 2011****Subject code: 161302****Subject Name: Fundamentals of Air Pollution****Date: 17/05/2011****Time: 10.30 am – 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** (a) Describe the Classification of dispersion of plume behavior. **07**
(b) Write a short note on Stability Condition. **07**

- Q.2** (a) Explain wind rose diagram with example, enlist its application. **07**
(b) What is lapse rate? Derived the lapse rate. **07**

OR

- (b) What is MMD? Discuss in detail. **07**

- Q.3** (a) Explain the classification of Air Pollutants. **07**
(b) Enlist the sources of Noise Pollution. **07**

OR

- Q.3** (a) What are the effects of noise on people, Discuss in detail **07**
(b) Enlist the existing Indian standard for Noise. **07**

- Q.4** (a) Write a short note on Wind velocity profile. **07**
(b) Write a short note on Heat Island Effect. **07**

OR

- Q.4** (a) Discuss the effects of Sulphur dioxide on human health, materials and vegetation. **07**
(b) Define the following terms: **07**
(i) Air Pollution (ii) Aerosol (iii) Water vapour (iv) Smoke (v) Mist
(vi) Fog (vii) Soot

- Q.5** (a) The Ozone Concentration reaches a value of 0.20 ppm over 1 hr duration period in urban area with photochemical smog problem. Determine by what percentage this level exceeds the ambient standard of 200 microgram per m³ for the given time period at NTP. **07**
(b) Which parameters are include in Ambient air quality standards also indicate their units. **07**

OR

- Q.5** (a) Discuss the effects of Nitrogen oxides on human health, materials and vegetation. **07**
(b) What are the sources of odour? Discuss control measures. **07**
