

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – II • EXAMINATION – SUMMER • 2014

Subject code: 1721707

Date: 23-06-2014

Subject Name: Air Pollution Control

Time: 02:30 pm - 05:00 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) Explain classification of air pollution in detail. 07
(b) Discuss the effect of different air pollution on vegetation. 07
- Q.2** (a) Explain different types of plum behavior with neat sketch. 07
(b) Write note: Guassian model for pollution dispersion. 07
- OR**
- (b) Describe adiabatic lapse rate & inversion in detail. 07
- Q.3** (a) Explain in detail sampling process for SO_x & NO_x . 07
(b) Discuss the site selection criteria for sampling station of air pollution. 07
- OR**
- Q.3** (a) Mention the Indian air quality standards for residential and industrial areas of NO_x , SO_x , SPM, CO & OZON. 07
(b) Explain cyclone scrubbers & spray tower with figure. 07
- Q.4** (a) Describe absorption & combustion process for control of gaseous air pollution. 07
(b) Explain with diagram High volume air sampler. 07
- OR**
- Q.4** (a) Discuss the recent development to reduce automobile industrial pollution. 07
(b) Explain the major automobile pollution & explain its impact on human health. 07
- Q.5** (a) Explain the different methods control for particulate matters. 07
(b) Discuss the roll of different government body to control air pollution. 07
- OR**
- Q.5** (a) An industry utilizes 0.25 ml of oil fuel per month it has been estimated that for every 1ML of fuel oil burn in factory, per year(for 300)days. the quantity of pollutant are : NO_x -3 tn/yr & SO_x -30 tn/yr. Calculate height of chimney for safe dispersion of pollution. 07
(b) Give the details of Bhopal gas tragedy-1984. 07
