



Reg. No. :

Name :

**Seventh Semester B.Tech. Degree Examination, November 2013
(2008 Scheme)**

08.705.6 (Elective – III) : AIR QUALITY MANAGEMENT (C)

Time : 3 Hours

Max. Marks : 100

Instruction : Answer all questions.

PART – A

1. Discuss the effect of air pollutants on vegetation.
2. What are secondary air pollutants ? Explain with examples.
3. What are atmospheric inversions ?
4. How do the topographical features influence plume behaviour ?
5. What are the different assumptions involved in a Gaussian plume model ?
6. What is a sampling train ?
7. Discuss the working of an electrostatic precipitator.
8. Explain the method of adsorption with respect to control of air pollutants.

(8×5=40 Marks)

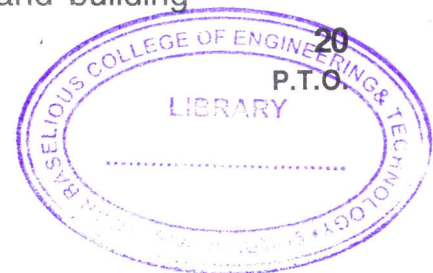
PART – B

Module – I

9. a) Explain the different sources of air pollutants. 12
- b) Explain greenhouse effect. 8

OR

10. Discuss the general effects of air pollution on human beings and building materials.



**Module – II**

11. a) Sulphur dioxide is emitted through a stack of 50 m height, and 2 m diameter at the exit at a temperature of 120°C with a velocity of 10 m/s. The emission rate of pollutant is 200 g/s. Determine the concentration of the pollutant at a downward distance of 1 km at the ground level for a stability category D pressure 1000 m bar and temp. 25°C . **12**
- b) Explain the Pasquill stability curves. **8**

OR

12. Explain the different categories of atmospheric stability with neat sketches. **20**

Module – III

13. Explain the different methods for control of particulate air pollutants. **20**

OR

14. a) Explain the sampling of gaseous air pollutants. **12**
- b) Explain stack sampling procedure for air pollutants. **8**
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