

**Code : R7410109****R07****IV B.Tech I Semester (R07) Supplementary Examinations, May 2012****AIR POLLUTION & CONTROL****(Civil Engineering)****Time: 3 hours****Max Marks: 80****Answer any FIVE questions****All questions carry equal marks****\*\*\*\*\***

1. (a) Discuss the classification of air pollution.  
(b) Discuss L<sub>o</sub>S angle air pollution disaster.
2. (a) What are the effects of air pollutants on vegetation?  
(b) Define acid rain. List the effects on environment.
3. (a) Explain the ill effects of removal of  $\text{SO}_x$  in a coal fired boiler.  
(b) Write short notes on air fuel ratio and compression ratio.
4. (a) Explain the following terms :  
(i) Environmental lapse rate.  
(ii) Adiabatic lapse rate.  
(b) Explain the role of meteorological elements in the dispersion of air pollutants.
5. (a) List the assumptions and limitations of Gaussian model for plume dispersion.  
(b) Describe the various types of plume behaviour with neat sketches.
6. (a) Explain with a neat sketch electro static precipitator.  
(b) Write a note on control of particulates at sources.
7. (a) Explain how process changes can be adopted in a thermal power plant.  
(b) Describe the wet method of removing acid mist in a pickling plant.
8. (a) Write short notes on Indian air quality standards.  
(b) Explain the particulate monitoring in ambient air.

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