

Code :R7410109

**R7**

**IV B.Tech I Semester(R07) Supplementary Examinations, May/June 2011**  
**AIR POLLUTION & CONTROL**  
**(Civil Engineering)**

Time: 3 hours

Max Marks: 80

**Answer any FIVE questions**  
**All questions carry equal marks**

\*\*\*\*\*

1. (a) Explain the following terms with respect to air pollution.
  - i. Area resources
  - ii. Line resources.(b) Define air pollution list the sources of atmospheric dusts and aerosols.
2. (a) Explain the effects of sulphur di-oxide on human beings and on plants.  
(b) Write short notes on green house gases and ozone depletion.
3. (a) What do you understand by thermodynamics kinetics of air pollution.  
(b) Write a note on control production of combustion.
4. (a) Write a note on wind rose diagram.  
(b) Write about plume behavior and explain the types of plume behavior with neat sketches.
5. (a) Explain environmental lapse rate and adiabatic lapse rate.  
(b) Derive the Gaussian plume model behavior with neat sketches.
6. (a) Explain the centrifugal separators to remove particulate with neat sketch.  
(b) Explain the principle & working of wet scrubber with neat sketch.
7. (a) Explain the general method of control of  $SO_x$  emission.  
(b) Explain dry methods of removal and re cycling of  $SO_x$ .
8. Explain the procedure of monitoring of SPM and list air quality standards.

\*\*\*\*\*