Code: 9A01706

R09

B.Tech IV Year I Semester (R09) Supplementary Examinations, May 2013 AIR POLLUTION AND CONTROL

(Civil Engineering)

Time: 3 hours Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Differentiate between stationary and mobile sources of air pollution. Discuss the effects of photochemical smog on human beings and environment as well.
 - (b) Discuss the scope and effects of natural pollutants.
- 2 (a) Discuss the effects of ozone holes on flora and fauna.
 - (b) Explain briefly the history of ozone holes.
- 3 (a) What is the thermodynamics? Why it is relevant in study of air pollution?
 - (b) Discuss the cause of CO production.
- 4 (a) Explain the role of atmospheric levels in the air pollution phenomena.
 - (b) Discuss the various scales of meteorology.
- 5 (a) Explain the phenomenon of wind belts.
 - (b) Explain the Gaussian plume model.
- Explain with a neat sketch, the principle, construction and working of a fabric filters. What are the factors effecting the efficiency of the fabric filters?
- 7 What are the various dry methods for control of SO_X ? Explain how do you control SO_X by following methods:
 - (a) Cat O_X process.
 - (b) SCOT process.
- 8 What are the long term goals recommended by WHO for the following pollutants:
 - (a) SO_2
 - (b) Suspended particles.
 - (c) CO
 - (d) Photochemical oxidant.
