

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.
- 6 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.
