

R09**Code: 9A01706**

B.Tech IV Year I Semester (R09) Regular & Supplementary Examinations December 2015

AIR POLLUTION & CONTROL

(Civil Engineering)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Distinguish between area source, line source and point source of air pollution.
(b) What is smog? Discuss its causes and effects.
- 2 (a) Discuss the harmful effects of polluted air on human health.
(b) Explain briefly causes and effects of acid rain on environment.
- 3 (a) Explain the combustion process used for controlling gaseous pollutants release into atmosphere.
(b) What are the effects of control on air fuel ratio on HC emission?
- 4 (a) What is a plume? Sketch different types of plumes.
(b) Explain the effect of pressure gradient on dispersion of pollutants.
- 5 (a) With neat sketches explain sub adiabatic, super adiabatic and neutral lapse rates.
(b) List the assumptions and limitations of Gaussian plume model.
- 6 (a) Explain the principle behind suspended particulate control technology in pollution control equipment.
(b) Sketch and explain the working of a wet scrubber.
- 7 (a) Briefly explain the pollution control methods for NO_x emissions.
(b) Discuss the salient features of wet dry system of controlling SO_x emissions.
- 8 (a) What are air quality standards? Explain the types of air quality standards.
(b) What are the guidelines prescribed by central pollution control board for minimum stack height in polluting industries?
