

Code: CS5T5FE1, EE5T6FE2, ME5T6FE3, EM5T6FE1

III B.Tech - I Semester – Regular Examinations - November 2014

AIR POLLUTION & CONTROL
(Common to CSE, EEE, ME, ECM)

Duration: 3 hours

Marks: 5x14=70

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

1. a) Describe the various air pollution sources in an industrialized city. 8 M
b) Write short notes on measurement of air pollution. 6 M
2. a) Explain the harmful effects of air pollutants on man and material. 7 M
b) Explain how air pollution affects the following materials:
i) Paper ii) Paints iii) Textiles 7 M
3. a) Explain the role of meteorological elements in the dispersion of air pollutants in the atmosphere. 7 M
b) Define Wind Rose. Explain the importance of wind rose in air pollution studies. 7 M

4. a) Explain the cause and effects of “inversion of atmosphere”.
7 M
- b) Explain Gaussian model of plume dispersion.
7 M
5. a) What are the factors affecting the efficiency of fabric filters.
7 M
- b) With a neat sketch, explain the principle and working of an electrostatic precipitator.
7 M
6. a) Discuss various methods of controlling gaseous emissions.
7 M
- b) Write a note on importance of activated carbon as an adsorbent.
7 M
7. a) Write a note on Air-Fuel Ratio.
7 M
- b) Write a short note on kinetics of air pollution.
7 M
8. a) Write short notes on “Air Quality Management” of a cement industry.
7 M
- b) What are the main features of Air (Prevention & Control of Pollution) Act, 1981?
7 M