PVP 14

Code: EE6T6FE-A, EC6T6FE-B, IT6T5FE-A, ME6T6FE-A, CS6T5FE-A.

III B.Tech - II Semester – Regular/Supplementary Examinations March 2018

AIR POLLUTION AND CONTROL
(COMMON FOR EEE, ECE, IT, ME & CSE)

Duration: 3 hours   Max. Marks: 70

PART – A

Answer *all* the questions.   All questions carry equal marks

$$11x\ 2 = 22\ M$$

1.
   a) Define Air Pollution. Discuss the sources of Air Pollution.
   b) Name the global Effects of Air Pollution.
   c) What is Greenhouse effect? Which gases are causing Greenhouse effect?
   d) Define the term wind rose.
   e) What are the causes of Inversion of atmosphere?
   f) Write a note on electrostatic precipitators for air cleaning.
   g) Explain the control measures of Sox.
   h) What are the objects of stack?
   i) What are the wet methods of removal and recycling?
   j) Define and explain the term sampling.
   k) What are the main features of Air Act, 1981?

PART – B

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

$$3 \times 16 = 48 \text{ M}$$

2. a) What are the Primary and Secondary Air Pollutants? Explain the formation of Secondary Air Pollutants.   8 M

   b) Discuss the Impact of man on environment mentoring the major environmental issues.   8 M

3. a) Explain the role of meteorological parameters in dispersion of Air Pollutants.   8 M

   b) Explain with neat sketches, how different atmospheric conditions give rise to different kinds of plume.   8 M

4. a) What are the advantages of "Wet Scrubbers" over "Fabric Filters" ?   8 M

   b) Explain the control of Sox emission in thermal power plants.   8 M

5. a) What do you mean by Automobile Pollution and describe its control methods w.r.t catalytic reduction.   8 M

   b) Explain the Diffusion theories.   8 M

6. a) Define and explain the term Sampling. Explain the
   sampling methods of Air Pollution.   8 M

   b) Discuss the emission standards for Air Quality
   Management.   8 M