

Total No. of Questions : 6]

SEAT No. :

P6

[Total No. of Pages : 2

APR.-17/BE/Insem.-6

B.E. (Civil)

**AIR POLLUTION AND CONTROL (Elective - III(d))
(2012 Pattern)**

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) *Solve Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q. 6.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate, full marks.*
- 4) *Use of logarithmic tables, slide rule, Mollier charts, electronic pocket calculator and steam tables are allowed.*
- 5) *Assume suitable data, if necessary.*

Q1) a) What are the zones of atmosphere? Explain Chemosphere and Troposphere. [6]

b) A thermal power plant burns 120000 kg of coal with 6% sulphur content. The particulate concentration in flue gases is 10g/m^3 and the gas flow rate is $25\text{m}^3/\text{sec}$. Calculate minimum stack height required. [4]

OR

Q2) a) What are the effects of stack height? Enlist various formulae used to calculate minimum stack height. [6]

b) What do you understand by stability of the atmosphere? Explain unstable atmosphere. [4]

Q3) a) Explain with a neat sketch location of sampling ports and traverse points. [6]

b) Write a short note on High volume sampler with a neat sketch. [4]

OR

Q4) a) Explain stack monitoring in detail with a neat sketch. [6]

b) Write in a tabular form National Ambient Air Quality Standards (NAAQS) specified by Central Pollution Control Board (CPCB) for PM_{10} and $\text{PM}_{2.5}$ (annual and 24 hours) for Industrial, Residential, Rural and other area. [4]

P.T.O.

- Q5)** a) What are the causes of indoor air pollution? [6]
b) Explain method of measurement of odour. [4]

OR

- Q6)** a) What is air cleaning system for control of indoor air pollution? Explain methods of mechanical ventilation. [6]
b) What are the different sources of odour? [4]

