

Total No. of Questions : 10]

SEAT No. :

**P6090**

[Total No. of Pages : 2

**[5561]-519**

**B.E. (Civil)**

**Air Pollution and Control (Elective - III)**

**(2015 Pattern)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *Attempt Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8, and Q.9 or Q.10.*
- 2) *Figures to the right indicates full marks.*
- 3) *Draw neat figures wherever necessary.*
- 4) *Assume any missing data if necessary.*
- 5) *Use of scientific calculators is allowed.*

- Q1)** a) Write features of Gaussian plume model and give the limitations of Gaussian plume models. [5]  
b) Explain the plume rise and how it is estimated? [5]

OR

- Q2)** a) What are the effects of stack height? Enlist various formulae used to calculate minimum stack height as per CPCB? [5]  
b) Write in a tabular form National Ambient Air Quality Standards (NAAQS) specified by Central Pollution Control Board (CPCB). [5]

- Q3)** a) Explain sick building syndrome. [5]  
b) Write methods measurement of odour and explain any one method. [5]

OR

- Q4)** a) Explain air cleaning systems for indoor air pollution control. [5]  
b) Write a short note on High volume sampler. [5]

- Q5)** a) Explain with sketches the mechanism, working principle, application of air pollution control by Electrostatic precipitator. [8]  
b) Write advantages, disadvantages and applications of following [8]  
i) Settling Chamber  
ii) Cyclones

OR

**P.T.O.**

- Q6)** a) Explain in brief about : [8]  
i) Control of air pollution by process modification.  
ii) Control of air pollution by change of raw materials.  
b) Write methods to control of air pollution from automobiles and explain any one method. [8]

- Q7)** a) Write note on economics of air pollution control. [8]  
b) Explain the important provisions made in Environment (Protection) Act 1986. [8]

OR

- Q8)** a) Explain powers, functions and penalties under Air Act 1981. [8]  
b) Write note on Emission standards for stationary sources. [8]

- Q9)** a) Write role of regulatory agencies and control boards in obtaining environmental clearance for project. [6]  
b) Write a note on public hearing for EIA. [6]  
c) Explain Components of EIA. [6]

OR

- Q10)**a) Write the environmental rules 1999 (siting of industries) as per the notification of Ministry of Environment and Forests. [9]  
b) Write and explain environmental impacts of sugar and cement industry. [9]

