

Total No. of Questions : 10]

SEAT No. :

**P3251**

[Total No. of Pages : 2

**[5670]-519**

**B.E. (Civil)**

**AIR POLLUTION AND CONTROL**

**(2015 Course) (Semester - II) (Elective - III) (401009D)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *Solve Q.1 or Q.2,Q.3 or Q.4,Q.5 or Q.6,Q.7 or Q.8,Q.9 or Q.10.*
- 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. **[6]**  
b) Explain stable and unstable atmosphere. **[4]**

OR

- Q2) a)** Explain Coning plume behaviour with the help of neat sketch. **[6]**  
b) Explain with a neat sketch location of sampling ports and traverse points. **[4]**

- Q3) a)** Draw schematically a sampling train for stack sampling indicating the equipment required. **[6]**  
b) Explain effects of indoor air pollutants with sources. **[4]**

OR

- Q4) a)** Write a short note on High volume sampler with sketch. **[6]**  
b) Explain method of measurement of odour. **[4]**

- Q5) a)** What are the advantages and disadvantages of Bag filter? Draw a neat sketch of bag filter. **[8]**  
b) What are the types of scrubbers? Explain the Venturi Scrubber with a neat sketch **[8]**

OR

**P.T.O.**

- Q6)** a) Explain working principle of a gravity settling chamber with a neat sketch and how the smallest size of particles removed can be found out? [8]
- b) What are the objectives of air pollution control equipment? Explain with example control of air pollution at source. [8]

- Q7)** a) What is land use planning? Explain its importance in controlling air pollution. [8]
- b) Explain Cost–Benefit Analysis (CBA) or Cost- Benefit Ratio in view of: Purposes of CBA, Process, Evaluation, and Cost-benefit ratio analysis with example. [8]

OR

- Q8)** a) What is the purpose of environmental (protection) ACT 1986? Explain the powers and duties of central and state pollution control boards. [8]
- b) Explain an important provision made in “The AIR (Prevention and Control of Pollution) ACT 1981”. [8]

- Q9)** a) Write the environmental rules 1999 (siting of industries) as per the notification of Ministry of Environment and Forests. [9]
- b) Write note on Emission standards for stationary sources [9]

OR

- Q10)**a) Explain roles of different authorities in the EIA Process. [9]
- b) Write a short note on the following EIA methodologies: [9]
- i) Networks and ii) Matrix Method

