

Total No. of Questions :10]

SEAT No. :

P2967

[5154]-519

[Total No. of Pages : 2

B.E.(Civil)

AIR POLLUTION AND CONTROL
(2012 Pattern) (Semester-II) (Elective-III) (End Sem.)

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 side 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 Troposphere. **[6]**

b) Write a short note on High volume sampler. **[4]**

OR

Q2) a) Enlist primary and secondary meteorological factors influencing air pollution & explain any two. **[6]**

b) Explain effects of indoor air pollutants with sources. **[4]**

Q3) a) What is iso kinetic sampling? Explain with a neat sketch. Why it is required? **[6]**

b) What are the causes of indoor air pollution? **[4]**

OR

Q4) a) Explain Radiation and Subsidence Inversion. **[6]**

b) Explain method of measurement of odour. **[4]**

Q5) a) What are the advantages and disadvantages of Electro Static Precipitator? **[8]**

b) Draw a neat sketch of the standard cyclone proportions in terms of diameter D. State expression for (dpc) cut size of particle and separation factor (Fc). **[8]**

OR

P.T.O.

- Q6)** a) Explain working principle of a gravity setting 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) Explain an important provision made in “The AIR (Prevention and Control of Pollution) ACT 1981”. [8]
b) What are the advantages and disadvantages of bag filter? [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) What is a need of Environmental Impact Assessment (EIA)? Also write about Indian policies requiring EIA. [8]

- Q9)** a) Write the environmental rules 1999 (siting of industries) as per the notification of Ministry of Environment and Forests. [9]
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. [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) Matrix Method and
ii) Ad Hoc method.

