

Total No. of Questions : 12]

SEAT No. :

P3297

[Total No. of Pages : 3

[4959]-6

B.E. (Civil Engineering) (Semester - I)
AIR POLLUTION & CONTROL (Elective - I)
(2008 Pattern)

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) Answer any three questions from each section.*
- 2) Answers to the two sections should be written in separate answer books.*
- 3) Your answers will be valued as a whole.*
- 4) Neat diagrams must be drawn wherever necessary.*
- 5) Use of logarithmic tables, slide rule, Mollier charts, electronics pocket calculator and steam tables is allowed.*
- 6) Assume suitable data, if necessary.*

SECTION - I

- Q1)** a) Explain in brief types of plume behaviour. **[10]**
b) Explain in detail about effects of air pollution on human health. **[8]**

OR

- Q2)** a) Write short note on zones of atmosphere and temperature lapse rate. **[10]**
b) Determine the effective height of stack for the given data. **[8]**
i) Physical stack is 203m tall with 1.07 m inside diameter.
ii) Wind velocity is 3.56 m/s.
iii) Air temperature is 14° C.
iv) Barometric pressure is 1000 millibars.
v) Stack gas velocity is 10 m/s.
vi) Stack gas temperature is 150° C.

P.T.O.

- Q3)** a) Explain in detail about air pollution survey in detail. [10]
b) State devices used for sampling and explain about duration of sampling period. [6]

OR

- Q4)** a) What principles should be followed for correct sampling and write about basic consideration of air sampling? [10]
b) Explain in brief about location of sampling sites. [6]

- Q5)** a) Explain about indoor air pollution, effects and causes of it. [10]
b) Explain in detail about control of indoor air pollution. [6]

OR

- Q6)** a) Explain in detail about the methods which may be employed alone or in various combination to eliminate or diminish odour. [10]
b) What are the sources and effects of odours on environment? [6]

SECTION - II

- Q7)** a) Enlist control devices for particulate contaminants and explain working of any two in detail? [10]
b) Write short note on control of air pollution from automobiles. [8]

OR

- Q8)** a) State major treatment processes available for control of gaseous pollutants and explain adsorption and absorption process in detail to control gaseous pollutants. [10]
b) Explain in brief control of air pollution by process modification, substitution of fuel and by changes in operational practices. [8]

- Q9)** Explain in brief about : [16]
a) Air Pollution Act 1981
b) Environment Protection Act 1986

OR

- Q10)** a) Write short note on National Ambient Air Quality Standards. [8]
b) Explain about emission standards in relation to mobile sources and stationary sources. [8]

Q11) a) Explain methodology for preparing environmental impact assessment. [8]

b) Explain role of regulatory agencies and control boards in obtaining environmental clearance for project. [8]

OR

Q12) a) Write short note on role of general public in environmental clearance.[8]

b) Explain environmental impacts of water resources projects in India.[8]

