Total No. of Questions : 12]

SEAT No. :

P1509

[Total No. of Pages : 3

[4759]-6

B.E. (Civil)

AIR POLLUTION AND CONTROL

(2008 Pattern) (Semester - I) (Elective - I)

Time : 3 Hours] *[Max. Marks :100*

Instructions to the candidates:

1) ***Answers 3 questions from section I and 3 questions from section II.***
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, electronic pocket calculator and steam tables is allowed.***
6) ***Assume suitable data, if necessary.***

SECTION - I

Q1) Discuss the followings:

a) Metrological parameters. **[6]**

b) Scales of Metrology. **[5]**

c) Plume Behavior. **[6]**

OR

Q2) a) How ground level concentration can be measured? Explain in brief. **[9]**

b) Calculate effective stack height from following data: **[8]**

i) Physical stack is 203 m tall

ii) Inside Diameter 1.07 m

iii) Wind velocity is 3.56 m/s

P.T.O.

iv) Air temperature is 13°C

v) Barometric pressure is 1000 millibars

vi) Stack gas velocity is 9.14 m/s

vii) Stack gas temperature is 149°C

Q3) a) What is Air pollution survey? Discuss. **[8]**

b) What is sampling of gases? How it is carried? **[8]**

OR

Q4) a) What are the methods available in air sample analysis? Explain any one in details. **[8]**

b) Discuss Air Quality Monitoring. **[8]**

Q5) a) How you can modify the indoor air quality? Explain in brief. **[8]**

b) What air pollutant? Give its sources and effects. **[9]**

OR

Q6) a) What are the sources of odor? How odor can be measured? **[8]**

b) Enlist the controlling methods for odor. Explain any one in detail. **[9]**

SECTION - II

Q7) a) Give note on air pollution control by **[10]**

i) Process Modification

ii) Change of Raw Material.

b) List out the types of control equipments. Explain settling chamber to remove minimum size of the particle. **[7]**

OR

Q8) a) A fabric filter is to be constructed using bags that are 0.3 m in diameter and 6.0m long. The bag house is to receive 10 m^3/sec of air, and the appropriate filtering velocity has been determined to be 2.0 m/min. Determine the number of bags required for a continuously cleaned operation. **[10]**

b) Discuss about Wet scrubber. **[7]**

Q9) a) What is land use planning? Discuss. **[8]**

b) Give a note on economics of air pollution control. **[8]**

OR

Q10)a) Discuss Air (Prevention and Control) Pollution Act 1981 with recent amendment. **[8]**

b) What are the emission standards in India for mobile and stationary sources? Discuss. **[8]**

Q11)a) Who are the regulatory agencies and their role to obtain environmental clearance for project? **[9]**

b) How the public hearing and role of general public is importance in environmental clearance? **[8]**

OR

Q12)a) In what way water resource project impact on environment? Discuss.**[9]**

b) Explain in details Environmental management plan. **[8]**

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