

B.E. (Civil Engineering) Seventh Semester (C.B.S.)
Elective - I : Air Pollution & Solid Waste Management

P. Pages : 2

Time : Three Hours



NRJ/KW/17/4575

Max. Marks : 80

- Notes :
1. All questions carry marks as indicated.
 2. Solve Question 1 OR Questions No. 2.
 3. Solve Question 3 OR Questions No. 4.
 4. Solve Question 5 OR Questions No. 6.
 5. Solve Question 7 OR Questions No. 8.
 6. Solve Question 9 OR Questions No. 10.
 7. Solve Question 11 OR Questions No. 12.
 8. Due credit will be given to neatness and adequate dimensions.
 9. Diagrams and chemical equations should be given whenever necessary.

1. a) Define air pollution. Explain various sources of an air pollution. **7**
- b) What is photo chemical smog? Explain the chemistry of photo chemical smog and its effect on human health. **6**

OR

2. a) Explain the effects of air pollution on human and plants. **6**
- b) Write note on **any two**. **7**
- i) Ozone depletion.
 - ii) Primary and secondary air pollutants.
 - iii) Zones of atmosphere.
3. a) Explain meteorological factors affecting air pollution. **6**
- b) Explain different types of plume behavior with neat sketches. **7**
4. a) Write short note on High volume sampler. **6**
- b) Define wind rose. Explain its importance in air pollution studies. **7**
5. a) List out the controlling equipments used in industries to control particulate matter and explain bag filter. **7**
- b) What are the effects of sound pollution on health and how to control it. **7**

OR

6. State the principles on which gaseous pollutants controlling equipments are used and explain the various methods used to control gaseous pollutants in industries. **14**

7. a) Explain the various sources of generation of solid waste. 7
b) Explain the physical and chemical characteristics of solid waste. 6

OR

8. a) Write down the functional elements of solid waste management. 6
b) Write note on **any two**. 7
i) Sampling of solid waste.
ii) Quality and quantity of solid waste.
iii) Composition of solid waste in Indian cities.

9. a) Explain various methods of solid waste collection with sketch. 7
b) What is transfer station? state its types. 6

OR

10. a) Write short note on methods for separation of municipal solid waste (any two). 7
b) Explain the methods of collections of solid waste from house to house. 6
11. a) How to control leachate from sanitary landfill. Explain it. 7
b) What are factors on which composting is depends explain any four. 7

OR

12. Write short note on **any three**. 14
i) Site selection of sanitary landfill.
ii) Types of incinerator.
iii) Three component diagram.
iv) Control of gaseous from sanitary landfill.
