

B.E. Civil Engineering Sem-VII
CE705 - Elective-I : Air Pollution and Solid Waste Management

P. Pages : 2

Time : Three Hours



GUG/S/19/1737

Max. Marks : 80

- Notes :
1. All questions carry equal marks.
 2. Assume suitable data wherever necessary.
 3. Illustrate your answers wherever necessary with the help of neat sketches.

1. a) Explain standard of air pollution as per I.S. 8
- b) What are the major air pollutant and what are the effect of air pollutant on man. 8

OR

2. a) Define air pollution and give the various sources of air pollution. 8
- b) What is atmosphere and explain all zones of atmosphere in detail. 8
3. a) Explain with neat sketch High volume sampler to measure pollution level in ambient air. 8
- b) Explain meteorological factor affecting air pollution. 8

OR

4. a) Explain in detail stack sampling in industry. 8
- b) A factory uses 0.3 million liter of fuel oil per month (Specific gravity 0.96) It has been estimated that one million liter of oil used per year, the following are the quantity of pollutant observed. 8
- 1) Particulate matter – 3.5 tonn / year.
 - 2) SO₂ 60.4 tonne / year
 - 3) NO_x – 7.0 tonne / year
 - 4) CO – 0.50 tonne / year
- Assuming factory work 300 day for 24 hour.
Determine the safe height of chimney for the safe dispersion of pollutant.
5. a) State the various types of equipment used to control particulate matter and explain any one in detail. 8
- b) Explain in detail about pollution due to petrol and diesel engine. 8

OR

6. a) Explain Incineration method to control gaseous pollutant. 8
- b) What are the effect of sound pollution on health and how to control it. 8
7. a) Explain in detail house sampling of solid waste is carried out. 8

- b) Explain per capita solid waste production and explain factor on which it depend. **8**

OR

- 8.** a) Explain in detail about necessity and responsibility of solid waste management. **8**

- b) Write a note on. **8**

1) Sampling of solid waste.

2) Quality and Quantity of solid waste.

- 9.** a) Explain how to control leachate and gas from sanitary landfilling. **8**

- b) Draw neat sketch of 3T diagram and state advantages and disadvantages of incineration. **8**

OR

- 10.** a) Write a short **any two**. **8**

1) Site selection of sanitary landfill.

2) Three component diagram.

3) Control of gaseous from sanitary landfill.

- b) What are the factor on which composting is depend explain any four. **8**
