

# CBCS SCHEME

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18CV732

## Seventh Semester B.E. Degree Examination, June/July 2023 Air Pollution and Control

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, choosing ONE full question from each module.**

### Module-1

- 1 a. Definition of Air Pollution. Explain the various source of air pollution. (10 Marks)  
b. Describe the general mechanisms by which air pollution effects the materials. (10 Marks)

**OR**

- 2 a. Explain the basic theory of formation of photochemical smog with reactions. (10 Marks)  
b. List out the types of Inversion and explain them. (10 Marks)

### Module-2

- 3 a. With the aid of graphical representation, explain different types of stability conditions of atmosphere. (10 Marks)  
b. With neat sketch, explain the various types of plume behaviour. (10 Marks)

**OR**

- 4 a. Explain terms : i) Temperature lapse ii) Wind velocity iii) Turbulence  
iv) Wind Rose v) Wind direction. (10 Marks)  
b. Write a note on measurement of the meteorological variables. (10 Marks)

### Module-3

- 5 a. Explain the principles of sampling the gaseous air pollutants. (10 Marks)  
b. Give step by step flow chart for the analysis of SO<sub>x</sub> and NO<sub>x</sub>. (10 Marks)

**OR**

- 6 a. What is indoor air pollution? What are the precautions measures to be taken to overcome this? (10 Marks)  
b. With aid of neat sketch, explain High volume air sampler. (10 Marks)

### Module-4

- 7 a. Explain with neat sketch construction, working of ESP. (10 Marks)  
b. Explain the construction of setting chambers. (10 Marks)

**OR**

- 8 a. Give the advantages and disadvantages of wet Scrubbers. (10 Marks)  
b. Examine the operation problems encountered in fabric filter. Mention factor affecting the efficiency of fabric filter. (10 Marks)

### Module-5

- 9 a. Give the salient features of environment protection Act, 1986. (10 Marks)  
b. Illustrate the case of Bhopal gas tragedy and its effects. (10 Marks)

**OR**

- 10 a. Define Noise Pollution. Explain sources and control measures of Noise Pollution. (10 Marks)  
b. Distinguish between Montreal Protocol and Kyoto protocol. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.