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**B.TECH CIVIL ENGINEERING  
(SEM V) THEORY EXAMINATION 2022-23  
AIR AND NOISE POLLUTION CONTROL**

**Time: 3 Hours**

**Total Marks: 100**

**Note:** Attempt all Sections. If you require any missing data, then choose suitably.

**SECTION A**

**1. Attempt all questions in brief. 2x10 = 20**

- (a) Define Planetary Boundary layer.
- (b) Mention the classification of air pollutants.
- (c) What are the features of wind rose.
- (d) Define Lapse rate
- (e) State Ambient air quality.
- (f) Define briefly about emission standards.
- (g) List the types of Condensation equipments used in air pollution control.
- (h) Define adsorption.
- (i) Comment on Noise pollution
- (j) State Noise indices.

**SECTION B**

**2. Attempt any three of the following: 10x3 = 30**

- (a) Briefly discuss about the sources and classification of air pollutants.
- (b) Explain the types of plume behavior with neat sketch.
- (c) Discuss the factors to be considered in selection of equipment for control of particulate contaminants.
- (d) Discuss briefly about Euro-I,II,III Specifications.
- (e) Explain the control methods and preventive measures undertaken for noise pollution.

**SECTION C**

**3. Attempt any one part of the following: 10x1 = 10**

- (a) Discuss in detail about the effects of air pollution on Human beings, animals and vegetation
- (b) Describe in detail about the effects of air pollution on property and aesthetic value and visibility.

**4. Attempt any one part of the following: 10 x1 = 10**

- (a) Discuss different types of environmental lapse rate.
- (b) Explain the atmospheric factors influencing the dispersion of air pollutants.

- 5. Attempt any *one* part of the following: **10x1 = 10****
- (a) Explain with neat sketches about the principle and working of Cyclone Separator.
  - (b) Illustrate with neat sketch the working principle of electro static precipitator with its advantages and disadvantages.
- 6. Attempt any *one* part of the following: **10x1 = 10****
- (a) Explain various absorption units in air pollution control.
  - (b) Compare the functions of Central and State Pollution Control Board in the area of air pollution control.
- 7. Attempt any *one* part of the following: **10x1 = 10****
- (a)
    - (i) What are the sources of noise? How noise become a pollution problem?
    - (ii) "Control of noise at source"-Discuss in detail.
  - (b) Discuss in brief the various sources of noise, and their typical noise levels, in a modern society.

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