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**Question Paper Code : 20389**

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2023

Fourth/Fifth Semester

Civil Engineering

CCE 331 – AIR AND NOISE POLLUTION CONTROL ENGINEERING

(Common to : Environmental Engineering)

(Regulations 2021)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List out the layers of atmosphere with their composition.
2. What are air pollution indices?
3. What are aerosols?
4. What are the factors considered in micro scale level of air pollution?
5. What do you mean by temperature lapse rate?
6. What is a plume?
7. List out the types of scrubbers used in air pollution control?
8. Differentiate between absorption and adsorption.
9. List out the accepted noise level for common uses.
10. How is noise pollution measured?

PART B — (5 × 13 = 65 marks)

11. (a) Discuss the air quality management practices adopted in India.

Or

- (b) Summarize the national ambient air quality standards.

12. (a) Discuss the sources and classification of air pollutants.

Or

(b) Summarize the effects of air pollution on human, plants and animals.

13. (a) Discuss the sampling procedure and measurement of particulate and gaseous pollutants.

Or

(b) Evaluate various air quality modeling methods with their advantages and limitations.

14. (a) Discuss the working of electrostatic precipitator to control air pollution.

Or

(b) Demonstrate the working of cyclone separator for air pollution control with sketch.

15. (a) Write the characterization of noise from different sectors in the world.

Or

(b) Summarize sound absorbent techniques adopted in a major city.

PART C — (1 × 15 = 15 marks)

16. (a) Discuss the economic, social and meteorological effects of air pollution.

Or

(b) Summarize the effects of noise pollution on human and methods to control it.