

Roll No.

Total Pages : 3

002606

May, 2023

B.Tech. (Civil) VIth Semester

Air Noise Pollution Control (PEC-CV-403-1)

Time : 3 Hours]

[Max. Marks : 75

Instructions :

1. *It is compulsory to answer all the questions (1.5 marks each) of Part -A in short.*
2. *Answer any four questions from Part ~B in detail.*
3. *Different sub-parts of a question are to be attempted adjacent to each other.*

PART-A

1. (a) What are the global implications of air pollution? (1.5)
(b) List the classification of air pollutants based on their types. (1.5)
(c) Mention two methods used for the control of particulate air pollutants. (1.5)
(d) What are the basics of acoustics and how are sound intensity and sound pressure levels measured? (1.5)
(e) What are the common gaseous contaminants and their sources in air pollution? (1.5)

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- (f) Explain the concept of psychoacoustics and its relevance in noise pollution. (1.5)
- ✓(g) Define air pollution dispersion. (1.5)
- ✓(h) Explain Wet collectors. (1.5)
- (i) Define Acoustic. (1.5)
- ✓(j) Write effect of Noise pollution on human health. (1.5)

PART-B

- 2. ✓(a) List and explain the types of Plume Behaviours. (10)
- ✓(b) Explain indoor air & noise pollution. (5)

- 3. (a) Explain Lapse Rate and its types using numerical expressions. (5)
- (b) Derive the expression for stack height in Gaussian Plume Model. (10)

- ✓4. Explain the composition and structure of atmosphere. (15)

- 5. (a) What do you mean by Air sampling. How can it be measured? (5)
- (b) List and explain (using diagrams) any two control devices for particulates. (10)

- 6. ✓(a) A noise meter located at a distance of 30 m from a point source recorded 74 dB Find the reading at a distance of 60m from the point source. (10)
- ✓(b) List and explain the sound characteristics. (5)

- ✓7. Write in detail about control of gaseous contaminants. (15)
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