



B.E/B.TECH DEGREE EXAMINATIONS: APRIL /MAY 2024

(Regulation 2018)

Sixth Semester

CIVIL ENGINEERING

U18CEE0006: Air and Noise Pollution Control

COURSE OUTCOMES

- CO1:** Categorize the various sources, types and nature of air pollutants and their effects on living and Non-living beings.
- CO2:** Perform quantitative measurements of the dispersion of pollutants in the atmosphere.
- CO3:** Understand the sources and effects of Indoor Pollution and its Control measure.
- CO4:** Determine the principle involved in the pollutant removal and their control measures.
- CO5:** To learn about the effects and the sources of noise pollution and its Legislation.

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-
PART A (10 x 2 = 20 Marks)
(Answer not more than 40 words)

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| 1. Write the objectives of air quality index? | CO1 [K ₁] |
| 2. List any four NAAQS with their limits. | CO1 [K ₁] |
| 3. What is meant by inversion? | CO2 [K ₁] |
| 4. Write the assumption made in the Gaussian dispersion model. | CO2 [K ₁] |
| 5. Define the term sick building syndrome. | CO3 [K ₂] |
| 6. Enlist the sources of VOC gas present in the indoor environment. | CO3 [K ₁] |
| 7. What are the factors to be considered for selection of control equipment? | CO4 [K ₂] |
| 8. List the merits and demerits of settling chamber. | CO4 [K ₁] |
| 9. Write the effect of noise pollution. | CO5 [K ₁] |
| 10. How to control the industrial noise with suitable example? | CO5 [K ₁] |

Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

11. a) Give the detailed note on sources and effects of air pollutants on the following 8 CO1 [K₂]
with suitable example
a. Human b. Vegetation
- b) Write the various air pollution sources with suitable examples. 8 CO1 [K₂]
12. a) Explain how meteorological conditions are involved in dispersion of air 8 CO2 [K₂]
pollutants with suitable example.
- b) Describe the different Peume behavior for various atmospheric condition with 8 CO2 [K₂]
neat sketch.
13. a) Give the detailed note on the various sources and control of indoor air pollutants. 8 CO3 [K₂]
- b) Discuss health impacts of various in door air pollutants 8 CO3 [K₂]
14. a) Explain the working principle of electrostatic precipitator with neat sketch. 8 CO4 [K₂]
- b) Mention the applications of venturi scrubber on the control of air pollution. 8 CO4 [K₂]
15. a) Write the detailed note on the source of noise pollution and its control measure 8 CO5 [K₂]
with suitable example.
- b) Give and explain the details on noise pollution standards. 8 CO5 [K₂]
16. a) Illustrate the gaseous air pollutants control methods with neat sketch 8 CO1 [K₂]
- b) Elaborate the different types of windrose diagram with its significance. 8 CO2 [K₂]
