



PAPER ID-311108

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Subject Code: KCE057

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BTECH
(SEM V) THEORY EXAMINATION 2023-24
AIR AND NOISE POLLUTION CONTROL

TIME: 3 HRS**M.MARKS: 100****Note:** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A****1. Attempt all questions in brief.**

Q no.	Question	Marks	CO
a.	Write the classification of air pollutants.	2	1
b.	What are toxic air pollutants?	2	1
c.	What are the plume types?	2	2
d.	Define the mixing depth.	2	2
e.	List the major equipment used to control air pollution.	2	3
f.	What are the advantages of bag house filters?	2	3
g.	What are the classifications of adsorbent?	2	4
h.	Write down the harmful implications of Sulphur dioxide (SO ₂).	2	4
i.	Define noise pollution.	2	5
j.	What are the psychological effects of air pollution?	2	5

SECTION B**2. Attempt any three of the following:**

a.	What are the causes of environmental pollution?	10	1
b.	Write down the effect of wind velocity on air pollution.	10	2
c.	Describe the gravitational settling chamber with its advantages and disadvantages.	10	3
d.	How are the various contaminants present in air managed in industrial processes?	10	4
e.	Provide the basics of acoustics and specify sound parameters like sound power, sound intensity, and sound pressure levels.	10	5

SECTION C**3. Attempt any one part of the following:**

a.	Provide detailed classification of air pollutants.	10	1
b.	Explain the concept of indoor air pollution. What are the major sources of indoor air pollutants?	10	1

4. Attempt any one part of the following:

a.	Discuss the meteorological aspects of air pollution	10	2
b.	Explore the chemistry of air pollution. How do various chemical reactions contribute to the formation of air pollutants?	10	2

5. Attempt any one part of the following:

a.	Outline the methods used for controlling particulate air pollutants.	10	3
b.	Discuss the working principles of gravitational settling chambers, cyclone separators, and wet collectors.	10	3

6. Attempt any one part of the following:

a.	Differentiate between absorption, adsorption, condensation, and combustion as methods for controlling gaseous contaminants.	10	4
b.	Discuss the control measures for sulphur oxides, nitrogen oxides, carbon monoxide, and hydrocarbons.	10	4

7. Attempt any one part of the following:

a.	Describe noise control methods. How can noise pollution be mitigated in various environments?	10	5
b.	Explore special noise environments such as infrasound, ultrasound, impulsive sound, and sonic boom.	10	5