

Code: 20CE2501A

**III B.Tech - I Semester – Regular / Supplementary Examinations
NOVEMBER 2023**

**AIR POLLUTION AND CONTROL
(Common to ALL Branches)**

Duration: 3 hours

Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.
2. All parts of Question must be answered in one place.

BL – Blooms Level

CO – Course Outcome

			BL	CO	Max. Marks
UNIT-I					
1	a)	Classify different types of air pollutants and indicate their sources.	L3	CO1	7 M
	b)	State common air pollutants, their sources and associated health effects.	L3	CO1	7 M
OR					
2	a)	What are the effects of air pollution on plants and monuments? Discuss with examples.	L2	CO1	7 M
	b)	What is Green house effect? Discuss the impact of green house gases on climate change.	L3	CO1	7 M
UNIT-II					
3	a)	Explain the various properties of atmosphere.	L2	CO2	7 M

	b)	What are the primary meteorological factors that influence air pollution?	L2	CO2	7 M
OR					
4	a)	Define the term Wind Rose. Explain with example the use of wind rose in locating industry with respect to residential area.	L2	CO2	7 M
	b)	What is meant by Plume Dispersion? Discuss the factors that influence Plume Dispersion.	L2	CO2	7 M
UNIT-III					
5	a)	Define the term sampling. What are the principles governing the avoidances of sources of error in sampling pollutants.	L2	CO3	7 M
	b)	Discuss the concepts involved in isokinetic sampling.	L3	CO3	7 M
OR					
6	a)	What are devices used for sampling gases? Explain any one in detail.	L2	CO3	7 M
	b)	Discuss the emission standards for air quality management.	L3	CO3	7 M
UNIT-IV					
7	a)	With neat diagram explain the functioning of settling chambers.	L2	CO4	7 M
	b)	Explain the functioning of spray tower wet scrubber neat sketch.	L2	CO4	7 M
OR					

8	a)	With a neat sketch explain the working of a Fabric filter in removing Air Pollutants.	L2	CO4	7 M
	b)	Explain the advantages and disadvantages of Electrostatic Precipitator.	L2	CO4	7 M
UNIT-V					
9	a)	Describe the removal of gaseous pollutants using absorption method.	L3	CO5	7 M
	b)	Write a note on closed collections and recovery systems.	L2	CO5	7 M
OR					
10		Explain the various techniques for control of SO_2 .	L3	CO5	14 M