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B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

January / February 2025 Semester End Main Examinations

Programme: B.E.

Semester: V

Branch: Civil Engineering

Duration: 3 hrs.

Course Code: 23CV5PEAPC

Max Marks: 100

Course: Air Pollution and Control

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

UNIT - I			CO	PO	Marks
1	a)	Explain the effects of air pollution on Materials and vegetation	<i>CO1</i>	<i>PO1</i>	10
	b)	Briefly explain how air pollution has affected Global warming	<i>CO1</i>	<i>PO1</i>	10
OR					
2	a)	Explain the sources and consequence of air pollutants for the following (i) Sulphur-di-oxide (ii) Ozone (iii) Dust (iv) Fumes	<i>CO1</i>	<i>PO1</i>	10
	b)	Define air pollution. Explain primary and secondary air pollutants	<i>CO1</i>	<i>PO1</i>	10
UNIT - II					
3	a)	Explain in detail Temperature Lapse Rate and Atmospheric Stability.	<i>CO1</i>	<i>PO1</i>	10
	b)	With neat sketch explain wind rose diagram	<i>CO1</i>	<i>PO1</i>	10
OR					
4	a)	Explain Gaussian dispersion model and write the assumptions of the model	<i>CO2</i>	<i>PO1</i>	10
	b)	Define plume rise. Explain the Equations for estimation of plume rise.	<i>CO2</i>	<i>PO1</i>	10
UNIT - III					
5	a)	With the neat sketch explain the working principle of Electro static precipitator	<i>CO3</i>	<i>PO1</i>	10
	b)	Explain the gaseous pollutant control by adsorption and absorption	<i>CO3</i>	<i>PO1</i>	10
OR					

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

	6	a)	Briefly explain the particulate matter removal by gravity settler with the neat sketch.	CO3	PO1	10
		b)	Explain how air pollution control is adopted for major industries	CO3	PO1	10
UNIT - IV						
	7	a)	What are the key laws and enforcement mechanisms implemented by governments to control air pollution and ensure compliance	CO3	PO1	10
		b)	How does Environmental Impact Assessment (EIA) address air pollution, and what are its key components in evaluating and mitigating the environmental effects of proposed projects	CO3	PO1	10
			OR			
	8	a)	Explain the preventive measures adopted to control the air pollution	CO3	PO1	10
		b)	Explain air quality monitoring	CO3	PO1	10
UNIT - V						
	9	a)	Write a note on causes and effects of indoor air pollution	CO3	PO1	10
		b)	Explain the control guide lines adopted for reduction of indoor air pollution	CO3	PO1	10
			OR			
	10	a)	Write a note on causes and effects of Noise pollution	CO3	PO1	10
		b)	Explain the legal aspects and standards adopted to reduce Noise pollution	CO3	PO1	10
