

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)

M.E DEGREE END SEMESTER THEORY EXAMINATIONS, NOV /DEC 2024

Second Semester

Environmental Engineering

EV4202 - Air and Noise Pollution Control Engineering

Regulations - 2021

Duration : 3 Hrs

Maximum : 100 Marks

PART - A (ANSWER ALL QUESTIONS) (Marks 10*2=20)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
1.	How is ozone hole formed?	UN	1	2
2.	List out the emission standards.	CR	1	2
3.	Mention two effects of air pollution on meteorological conditions.	RE	2	2
4.	Define atmospheric stability.	RE	2	2
5.	List out the types of scrubbers.	RE	3	2
6.	Mention any two-control equipment for removing fine particulate matters.	RE	3	2
7.	Distinguish between contact condenser and surface condenser.	AN	4	2
8.	Mention the environmental legislation for air pollution control.	RE	4	2
9.	Write the standards for air pollution due to automobiles.	RE	5	2
10.	What are the effects of noise on human health?	EV	5	2

PART - B (ANSWER ALL QUESTIONS) (Marks 5*13 = 65)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
11.	a i Explain with neat sketch about the structures of atmosphere.	CR	1	7
	ii Discuss about the air pollutants that contribute climate change.	AP	1	6
	Or			
	b i How is air pollutant classified? What are the different sources of air pollutants? Give examples.	RE	1	7
	ii Discuss in detail about the effects of air pollution on human beings, animals and vegetation.	AP	1	6
12.	a i Explain stack gas emission standards for different industries.	UN	2	8
	ii Explain the significance of wind rose diagram.	CR	2	5
	Or			
	b i Explain the factors influencing the atmospheric dispersion of air pollutants.	RE	2	8
	ii What are the assumptions in the Gaussian Model?	UN	2	5

13.	a	i	Explain the various methods of filter cleaning with neat sketches.	RE	3	9
		ii	Write a brief note about Gas particle Interaction.	CR	3	4
Or						
	b	i	Discuss in detail about the factors affecting selection of control equipment.	EV	3	9
		ii	Explain the air pollution control efforts made in our country.	AP	3	4
14.	a	i	Write a brief note about Incineration process with sketches.	AP	4	7
		ii	Briefly discuss on types of carbon adsorption system with suitable neat sketch.	AN	4	6
	Or					
	b	i	Discuss on absorption method of control of gaseous contaminants.	UN	4	7
		ii	Explain briefly about the bio-filters.	AN	4	6
15.	a		Explain in briefly the major factor and action that may help in noise abatement in a modern society.	AP	5	13
	Or					
	b		List out the air pollutant sources and control measures carried out in petroleum refining unit.	AP	5	13

*PART – C (Marks 1*15 = 15)*

Q.No		Questions	BLT	CO	Marks
16.	a	Explain with neat sketch the working principle of electro static precipitator with its advantage and disadvantage.	AN	3	15
Or					
	b	Suggest an air pollutant control plan for Chennai metropolitan city.	AN	5	15