Code No: **R164101C** **R16** **Set No. 1**

IV B.Tech I Semester Supplementary Examinations, February- 2020

AIR POLLUTION AND CONTROL

(Civil Engineering)

Time: 3 hours **Max. Marks: 70**

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any FOUR questions from Part-B

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PART–A *(14 Marks)*

1.	a)	What is an ozone hole?	[2]
	b)	Explain effects on vegetation due to air pollutants.	[3]
	c)	Define lapse rate.	[2]
	d)	Explain the pressure systems in plume dispersion.	[2]
	e)	What is the size of particle in emission control equipment?	[2]
	f)	Explain the health effects of particulate matter.	[3]

PART–B *(4x14 = 56 Marks)*

2.	a)	Distinguish between "Air Quality Indicator" and " Air Quality Index"?	[7]
	b)	List the types of Indoor air Pollutants, their sources and associated impacts.	[7]
3.	a)	What are the principal gases of concern in air pollution control? Explain the four primary types of treatment processes available for control of gaseous contaminant.	[7]
	b)	Describe the operation of High Volume Sampler for air quality monitoring.	[7]
4.	a)	What are all the factors to be considered while selecting the air pollution control equipment?	[7]
	b)	Explain in detail about Isopleths Plume Rise Models.	[7]
5.	a)	Explain the Gaussian Dispersion model and state its application.	[7]
	b)	Compare the plume behaviours under different conditions of atmospheric stability.	[7]
6.	a)	With the help of neat sketch explain the working of cyclone separator.	[7]
	b)	Explain the working of Electrostatic precipitator.	[7]
7.	a)	Explain the role of atmospheric levels in the air pollution phenomenon.	[7]
	b)	Explain the working of high efficiency particulate air filter.	[7]

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