

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER- V (New) EXAMINATION – WINTER 2019****Subject Code: 2153504****Date: 25/11/2019****Subject Name: Air Pollution Control****Time: 10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		MARKS
Q.1	(a) Define: Air Pollution, Chimney, NAAQS.	03
	(b) Explain effect of terrain and structure on pollutant dispersion with the help of neat diagram.	04
	(c) What do you mean by noise? How it can be measured? What are the major sources of noise?	07
Q.2	(a) Define: Necrosis, Power law, ESH.	03
	(b) Discuss various instruments used for noise measurement.	04
	(c) Discuss the working principle of Fabric filter with the help of neat diagram.	07
	OR	
	(c) Discuss the working principle of Cyclone separator with the help of neat diagram.	07
Q.3	(a) Explain Maximum Mixing Depth.	03
	(b) Discuss the phenomenon of "Acid Rain".	04
	(c) What do you understand by "Greenhouse effect"? How is it responsible for global warming? Discuss salient features of Kyoto Protocol.	07
	OR	
Q.3	(a) Discuss Ventilation coefficient and its significance.	03
	(b) Discuss the phenomenon of "Photochemical Smog".	04
	(c) What do you understand by "CFC"? How is it responsible for Ozone layer depletion? Discuss salient features of Montreal Protocol.	07
Q.4	(a) What following terms stand for: ODS, CEPI, CFC.	03
	(b) Write a short note on Packed bed scrubber.	04
	(c) What do you understand by Air quality modelling? What are the categories of models? Discuss in detail with their limitations.	07
	OR	
Q.4	(a) What following terms stand for: AQI, VOC, GHG.	03
	(b) Write a short note on Electrostatic Precipitator.	04
	(c) Explain the Gaussian model with its assumptions and limitations.	07
Q.5	(a) Define: Lapse rate, Ozone layer depletion, Ventilation coefficient.	03
	(b) What is Plume Rise? Write any formula for its calculation.	04
	(c) Explain the term "inversion". Discuss all kind of inversion in detail.	07
	OR	
Q.5	(a) Define: PAN, DALR, COHb.	03
	(b) Discuss sources and impacts of sulphur dioxide.	04
	(c) What is atmospheric stability? Discuss various types of plume behavior.	07
