

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII (OLD) EXAMINATION – SUMMER 2019

Subject Code: 171302

Date: 14/05/2019

Subject Name: Air Pollution Control And Management

Time: 02:30 PM TO 05:00 PM

Total Marks: 70

Instructions:

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

Q.1 (a) "Air pollution control management" Discuss in detail. 07
(b) Enlist which pollutants are affects the ambient air quality? Explain in brief. 07

Q.2 (a) What is A/F ratio in auto mobile? Discuss pollutant generate from mobile source. 07
(b) Draw a neat sketch of gas turbine combustion chamber. Explain ways of reducing emissions of carbon monoxide and hydrocarbon. 07

OR

(b) Enlist the pollutants emitted from a diesel engine. What sort of modifications you suggest to control the pollutants? 07

Q.3 (a) Explain in brief acid rain and show through series of reactions formation of acids in atmosphere. 07
(b) Enlist the photochemical oxidants and write the reactions of their formation. 07

OR

Q.3 (a) What are the objections to the lime scrubbing throwaway process for removing SO₂ from stack gases? 07
(b) With reference to atmospheric photochemical reaction, explain in detail Hydrocarbon reactivity. 07

Q.4 (a) Discuss control of particulate matter in bag filter and explain its cleaning mechanisms with sketch. 07
(b) Enlist and Explain selection criteria for Air Pollution Control Equipment. 07

OR

Q.4 (a) Explain advantages, disadvantages and applications of Electro Static Precipitator. 07
(b) Enlist and explain control methods for gases and vapors. 07

Q.5 (a) Write a Brief note on Photochemical Smog & Hydrocarbon Reactivity. 07
(b) Briefly explain Double Alkali Scrubbing System for Sulfur Dioxide. 07

OR

Q.5 (a) Write a short note on thermodynamics of photochemical reaction. 07
(b) Write short note on Single Alkali Scrubbing System for Sulfur Dioxide. 07
