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Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII EXAMINATION - SUMMER 2016

Subject Code:171302 Subject Name: Air Pollution Control and Management Time:02:30 PM to 05:00 PM Instructions: Date:07/05/		Code:171302 Date:07/05/2016	Date:07/05/2016	
		s: 70		
	1. 2. 3.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.		
Q.1	(a) (b)	Explain role of oxides of nitrogen in photooxidation Write a short note: Air pollution indices	07 07	
Q.2	(a)	Enlist the emissions from diesel engines and also explain the variables which are having effect on the emissions from the engine.	07	
	(b)	Explain general control methods for sulphur oxides OR	07	
	(b)	Enlist & describe the different adsorbents used for controlling air pollution	07	
Q.3	(a) (b)	Draw the neat sketch of various packing materials used in packed tower Explain in detail: turbojet engine emissions OR	07 07	
Q.3	(a)	Enlist the particulate control devices and explain the advantages and disadvantages of any one.	07	
	(b)	Why is it impossible to operate a gasoline engine (no pollution controls) at an air-fuel ratio which will give minimum CO, HC and NOx simultaneousy?	07	
Q.4	(a) (b)	Explain the procedure for the design of absorption tower in detail Write a short note on Catalytic converters for automotive emission control OR	07 07	
Q.4	(a) (b)	Explain combustion control methods for NOx from stationary sources Enlist the photochemical oxidants and write the reactions of their formation	07 07	
Q.5	(a) (b)	Explain thermodynamics and kinetics of sulphur dioxide formation With reference to atmospheric photochemical reaction, explain in detail Hydrocarbon reactivity	07 07	
Q.5	(a) (b)	OR Draw flow diagram of SO ₂ lime scrubbing removal system Draw a neat sketch of cyclone separator	07 07	
