

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-IV(New) EXAMINATION – SUMMER 2016

Subject Code:2143609**Date:06/06/2016****Subject Name:Industrial 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	Short Questions	14
	1 In natural air, composition of N ₂ gas is about.....	
	2 pH of fresh water is	
	3 NAAQS stands for.....	
	4 Define Good Ozone and Bad Ozone	
	5 Define Air Pollution	
	6 Define Primary and secondary pollutants	
	7 Define Field capacity	
	8 Define Point, Line and Area Sources of air pollution	
	9 Define Fusion point of ash	
	10 Define Rubbish	
	11 SPCB stands for.....	
	12 TSDF stands for.....	
	13 MEE stands for.....	
	14 CETP stands for.....	
Q.2	(a) Explain Ultimate Analysis and Proximate Analysis.	03
	(b) What do you mean by solid waste? How it can be classified?	04
	(c) Lapple's approach for calculating efficiency of cyclone separator.	07
	OR	
	(c) Write a Short Note on Cyclone Spray Chambers.	07
Q.3	(a) Explain Physical Characteristics of Municipal waste.	03
	(b) What do you understand by TSDF? Discuss the role of TSDF in solid waste management.	04
	(c) Give general outline of an effluent treatment plant and discuss significance of each section with the help of schematic diagram.	07
	OR	
Q.3	(a) Explain effluent treatment in rubber and polymer industry.	03
	(b) Explain various mechanisms for dust dislodging in fabric filter.	04
	(c) Write a note on Radioactive waste.	07
Q.4	(a) Write about sources and health impacts associated with oxides of sulphur and nitrogen.	03
	(b) Explain effluent treatment in Glass industry.	04
	(c) Discuss types and working of Multi effect evaporators.	07
	OR	
Q.4	(a) What is the working principle of gravity settling chamber?	03
	(b) What is the working principle of Fabric filter?	04

- (c) What do you understand by Bio-medical Waste? Discuss about management of Bio-medical Waste in detail. **07**
- Q.5** (a) Discuss about various types of PM. **03**
- (b) What is the working principle of Electrostatic precipitator (ESP)? **04**
- (c) What are the major air pollutants? Write about their general characteristics and their impact on human health and vegetation. **07**
- OR**
- Q.5** (a) Explain general working of coal based thermal power plant. **03**
- (b) What is the working principle of wet scrubber? **04**
- (c) Explain working of sedimentation tank with the help of suitable diagram. **07**
