

**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
<b>Q.1</b>	<b>Short Questions</b>	<b>14</b>
	1 In natural air, composition of N <sub>2</sub> 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.....	
<b>Q.2</b>	(a) Explain Ultimate Analysis and Proximate Analysis.	<b>03</b>
	(b) What do you mean by solid waste? How it can be classified?	<b>04</b>
	(c) Lapple's approach for calculating efficiency of cyclone separator.	<b>07</b>
	<b>OR</b>	
	(c) Write a Short Note on Cyclone Spray Chambers.	<b>07</b>
<b>Q.3</b>	(a) Explain Physical Characteristics of Municipal waste.	<b>03</b>
	(b) What do you understand by TSDF? Discuss the role of TSDF in solid waste management.	<b>04</b>
	(c) Give general outline of an effluent treatment plant and discuss significance of each section with the help of schematic diagram.	<b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) Explain effluent treatment in rubber and polymer industry.	<b>03</b>
	(b) Explain various mechanisms for dust dislodging in fabric filter.	<b>04</b>
	(c) Write a note on Radioactive waste.	<b>07</b>
<b>Q.4</b>	(a) Write about sources and health impacts associated with oxides of sulphur and nitrogen.	<b>03</b>
	(b) Explain effluent treatment in Glass industry.	<b>04</b>
	(c) Discuss types and working of Multi effect evaporators.	<b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) What is the working principle of gravity settling chamber?	<b>03</b>
	(b) What is the working principle of Fabric filter?	<b>04</b>

- (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 is 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**

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