

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-IV(New) • EXAMINATION – WINTER 2016

Subject Code:2143609

Date:23/11/2016

Subject Name:Industrial Pollution & Control

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.

		MARKS
Q.1	Short Questions	14
	1 Define Air Pollution	
	2 Define BOD	
	3 Define Fusion point of ash	
	4 Define Chlorosis	
	5 Define Fly ash	
	6 Define Ultimate analysis	
	7 Define TSS	
	8 Define Necrosis	
	9 Define Migration velocity	
	10 Define Proximate analysis	
	11 Define COD	
	12 Define TS	
	13 Define Noise	
	14 Define Solid waste	
Q.2	(a) What are the basic principles for controlling particulate matter?	03
	(b) Explain working of Impingement Scrubbers with the help of suitable diagram.	04
	(c) Explain working of Electrostatic precipitator with the help of suitable diagram, also explain mechanism for particle charging.	07
	OR	
	(c) Explain working of Bag filter with the help of suitable diagram, also explain cleaning mechanism for bag house.	07
Q.3	(a) Write short note on “Radioactive waste”.	03
	(b) Explain Primary treatment of waste water	04
	(c) Discuss general process and environmental management in Pharmaceutical industry.	07
	OR	
Q.3	(a) Write short note on “Physical Characteristics of Municipal waste”.	03
	(b) Explain Secondary treatment of waste water.	04
	(c) Discuss general process and environmental management in rubber and polymer industry.	07

- Q.4** (a) Write about “pollutants from coal based power plant”. **03**
(b) Explain working of MEE. **04**
(c) What do you understand by TSDF? Discuss the role of TSDF in solid waste management. **07**

OR

- Q.4** (a) Discuss about plastic waste management. **03**
(b) Discuss about characteristics of waste water. **04**
(c) What are basic principles for controlling gaseous pollutants? **07**

- Q.5** (a) Explain working principle of Gravity chamber. **03**
(b) Discuss “environmental management in rubber and polymer industry”. **04**
(c) What do you mean by solid waste? How it can be classified? **07**

OR

- Q.5** (a) Explain working principle of cyclone separator. **03**
(b) Discuss “Lapple’s approach for calculating efficiency of cyclone separator”. **04**
(c) What do you understand by incineration? Explain the process and its application. **07**
