Seat No.: _____ **Enrolment No._____**

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–IV (NEW) - EXAMINATION – SUMMER 2017

Subject Code: 2143609 **Date: 08/06/2017**

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	Define term putricible	
	2	Define Aerosol.	
	3	What is a full form if STP?	
	4	Blue color indicates which Biomedical waste category	
	5	Abbreviate term TSDF.	
	6	Abbreviate term BOD.	
	7	Gravity settler can separate particulate matter of which size?	
	8	Define Trump card.	
	9	Measure of acidity and alkalinity is _____parameter in waste water.	
	10	Define term incineration.	
	11	Abbreviate term ASU.	
	12	Define smoke and fog.	
	13	Define concept self purification for natural water body.	
	14	Zimpro Process belongs to which type of combustion?	
Q.2	**(a)**	Write a general waste water characteristic of Pharmaceutical industry.	**03**
	(b)	Enlist and explain general classification of municipal solid waste.	**04**
	(c)	Write a short note on Biomedical Waste collection and disposal.	**07**
		OR	
	(c)	Classified air pollutants on the basis of origin, source and characteristic.	**07**
Q.3	**(a)**	Explain general environmental problem related to textile industry.	**03**
	(b)	Which environmental problems one has to take care while operating nuclear plant.	**04**
	(c)	Explain major chemical, biological and physical parameters of waste water.	**07**
		OR	
Q.3	**(a)**	Write a note on Gravity settler.	**03**
	(b)	Explain basic principles of air pollution separation techniques with any one example.	**04**
	(c)	Compare air pollution removal mechanism of electrostatic precipitator and cyclone separator.	**07**
Q.4	**(a)**	What is a meaning of biodegradable waste and non	**03**

		biodegradable waste?	
	(b)	For Dye industry which technique is useful for removing colour?	**04**
	(c)	Write a note on multi effect evaporator.	**07**
		OR	
Q.4	**(a)**	Write a short note on Activated Sludge Unit.	**03**
	(b)	Explain wet combustion in detail.	**04**
	(c)	Write design concept of scrubbing system for air pollutant removal.	**07**
Q.5	**(a)**	What is a working and construction mechanism of TSDF site?	**03**
	(b)	How does power plant can be a potential threat in terms of air pollution?	**04**
	(c)	Draw a neat diagram with working and construction of different tertiary treatments for waste water.	**07**
		OR	
Q.5	**(a)**	What does mean by the acute and chronic effect of pollution?	**03**
	(b)	Draw and explain proposed ETP plant for Glass and ceramic industry based on general waste water characteristics.	**04**
	(c)	Write a note on manifestation in Hazardous solid waste management.	**07**

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