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

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–V (NEW) - EXAMINATION – SUMMER 2016

Subject Code:2151302 **Date:21/05/2016**

Subject Name:Advanced Environmental Instrumentation

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.**

Q.1	**(a)**	What is Advanced Environmental Instrumentation? What is its Importance?	**07**
	(b)	Write the working principle of Flame Photometer.	**07**
Q.2	**(a)**	Write a short note on "Spectrophotometer" with neat sketch.	**07**
	(b)	Write the working principle of Ion Selective meter.	**07**
		OR	
	(b)	Derive and explain Lambert's and Beer's law.	**07**
Q.3	**(a)**	What is Chromatography? Explain stationary phase in Chromatography.	**07**
	(b)	Write a short note on pH meter.	**07**
		OR	
Q.3	**(a)**	Write a short note on TOC analyzer.	**07**
	(b)	Write a short note on Gas Chromatograph.	**07**
Q.4	**(a)**	Explain the term with examples (i) Standard Deviation (ii) Relative Deviation	**07**
	(b)	Write a short note on Frequency distribution curve.	**07**
		OR	
Q.4	**(a)**	Write a short note on Raman Spectroscopy.	**07**
	(b)	Give the applications of High Performance Liquid Chromatography.	**07**
Q.5	**(a)**	Write a short note on Standard Hydrogen Electrode.	**07**
	(b)	Write a short note on Errors and Treatment of statistical data.	**07**
		OR	
Q.5	**(a)**	Write a short note on Nephelo Turbidity Meter.	**07**
	(b)	Write a short note on Conductivity Meter.	**07**

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