

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

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

Subject Code: 2161711

Date: 08/05/2017

Subject Name: Environmental Instrumentation

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 Telemetry Technique	
	2 Sedimentation	
	3 Stokes Law	
	4 HPLC	
	5 Data Logger	
	6 Head Space Methods	
	7 Flotation	
	8 Design Criteria For Settling Tank	
	9 Steel Tap	
	10 Chromatography Detectors	
	11 Chromatography Column Type	
	12 NGO	
	13 FID	
	14 FPD	
Q.2	(a) Explain difference between Portable and Stationary instruments	03
	(b) Explain Sedimentation in detail.	04
	(c) Explain requirements of water treatment facilities	07
	OR	
	(c) Explain Steel tap in detail.	07
Q.3	(a) Explain Hydrocarbon detector in detail.	03
	(b) Explain HPLC application in details	04
	(c) Explain ECD in detail.	07
	OR	
Q.3	(a) Explain Air Sampling methods in detail	03
	(b) Explain TCD in detail.	04
	(c) Explain rain water harvesting necessity.	07
Q.4	(a) Role of NGO in Environment Protection	03
	(b) Explain need of ambient air quality and techniques.	04
	(c) Explain air sampling methods	07
	OR	
Q.4	(a) Explain UV analyzers	03
	(b) Explain requirements of water treatments.	04
	(c) Write general equations for settling or rising of discrete particles.	07
Q.5	(a) Explain Opacity monitors.	03
	(b) Explain PH analyzers in detail.	04
	(c) Draw any two basin for sedimentation and flotation.	07
	OR	
Q.5	(a) Explain Turbidity analyzers in detail.	03
	(b) Explain Gas Chromatography.	04
	(c) Latest methods of water treatment plants.	07
