

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI(NEW) – EXAMINATION – SUMMER 2019****Subject Code:2161711****Date:21/05/2019****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	(a) How Portable Instruments are Differ from Stationary Instruments?	03
	(b) Explain settling of discrete particles with equations.	04
	(c) Explain CO measurement.	07
Q.2	(a) Explain need of ambient air quality and techniques.	03
	(b) List out the Level measurement techniques for ground water monitoring wells.	04
	(c) Explain Rain Water Harvesting.	07
	OR	
	(c) Explain Beer's law.	07
Q.3	(a) What is Sedimentation? State Different Types of Sedimentation.	03
	(b) Explain Turbidity measurement in detail.	04
	(c) Explain glass electrode for pH measurement with its advantages and disadvantages and maintenance.	07
	OR	
Q.3	(a) List analytical methods for air pollution studies.	03
	(b) Role of NGO in Environment Protection.	04
	(c) Explain TCD Detectors In Detail	07
Q.4	(a) Explain UV analyzers.	03
	(b) Define how thermal plants are responsible for air pollution?	04
	(c) Explain the effect of temperature on coagulation.	07
	OR	
Q.4	(a) Explain the measurement technique for NOx.	03
	(b) Explain conductivity for liquid measurement.	04
	(c) Explain HPLC in Detail.	07
Q.5	(a) Explain function of Spirometer.	03
	(b) Explain Soap bubble meter.	04
	(c) Describe Hot wire Anemometer for Gas flow.	07
	OR	
Q.5	(a) Explain SO2 monitoring analyzer.	03
	(b) Explain non-open channel waste water flow measurement.	04
	(c) Write a short note on flame ionization detector.	07
