

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI (NEW) - EXAMINATION – SUMMER 2018

Subject Code:2161711

Date:08/05/2018

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) What is Sedimentation? State Different Types of Sedimentation.	03
	(b) Explain the necessity of Instrumentation & Control for environment.	04
	(c) Explain glass electrode for pH measurement with its advantages and disadvantages and maintenance	07
Q.2	(a) Explain about Thermal conductivity.	03
	(b) Derive the Beer -Lambert law	04
	(c) How Portable Instruments are different from Stationary Instruments	07
OR		
Q.3	(c) Write a short note on flame ionization detector.	07
	(a) Explain Turbidity analyzers	03
	(b) Draw any one basin for sedimentation and flotation.	04
	(c) Explain Different Types of Sedimentation in Detail.	07
OR		
Q.3	(a) Mention the application of HPLC	03
	(b) Explain the importance of degasser and guard column in HPLC.	04
	(c) Explain gas chromatograph.	07
Q.4	(a) Explain need of ambient air quality and techniques.	03
	(b) Explain non-open channel waste water flow measurement.	04
	(c) Explain HPLC In Detail	07
OR		
Q.4	(a) Explain the measurement technique for Co.	03
	(b) Explain the measurement technique for NOx.	04
	(c) Explain Soap Bubble Merer.	07
Q.5	(a) Explain UV analyzers	03
	(b) Explain the merits and demerits of the gas chromatograph.	04
	(c) Describe Opacity Monitors In Detail.	07
OR		
Q.5	(a) Role of NGO in Environment Protection	03
	(b) Explain any one open channel waste water flow measurement	04
	(c) Explain Rain Water Harvesting.	07
