

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

## GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI (NEW) EXAMINATION – SUMMER 2021

Subject Code:2161711

Date:07/08/2021

Subject Name: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.

		MARKS
Q.1	(a) Explain about Thermal conductivity	03
	(b) Explain air pollution measurement methods.	04
	(c) Explain Gas chromatography in detail.	07
Q.2	(a) Explain photo ionization in detail.	03
	(b) Why instrumentation engineer needs to assure quality of water?	04
	(c) Explain HPLC in detail.	07
OR		
Q.3	(c) Describe Vane Anemometer	07
	(a) What is Sedimentation? State Different Types of Sedimentation.	03
	(b) Explain Turbidity measurement in detail.	04
(c) Explain water treatment requirements in detail	07	
OR		
Q.3	(a) Role of NGO in Environment Protection	03
	(b) Explain the design criteria for settling tank	04
	(c) Explain Rain Water Harvesting.	07
Q.4	(a) Explain UV analyzers.	03
	(b) List the standards for raw and treated water.	04
	(c) Explain the effect of temperature on coagulation	07
OR		
Q.4	(a) Explain the measurement technique for NOx.	03
	(b) Write a note on standard applications of ultraviolet analyzers	04
	(c) Write a short note on flame ionization detector.	07
Q.5	(a) Why Hydrocarbon Detection is Necessary?	03
	(b) Explain Soap bubble meter.	04
	(c) What is conductivity? Give the classification of conductivity meter in Environmental Engineering Field.	07
OR		
Q.5	(a) Explain SO2 monitoring analyzer	03
	(b) Explain settling of discrete particles with equations	04
	(c) Describe Hot wire Anemometer for Gas flow.	07

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