

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-VI (NEW) EXAMINATION – WINTER 2020****Subject Code:2161711****Date:01/02/2021****Subject Name:Environmental Instrumentation****Time:02:00 PM TO 04:00 PM****Total Marks: 56****Instructions:**

1. Attempt any FOUR questions out of EIGHT 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 UV analyzers.	04
(c) Explain glass electrode for pH measurement with its advantages and disadvantages and maintenance.	07
Q.2 (a) Explain the function of flame ionization detector in detail.	03
(b) Explain Beer-Lamberts law.	04
(c) Explain HPLC in detail.	07
Q.3 (a) Explain need of ambient air quality and techniques.	03
(b) Explain Stokes law.	04
(c) Explain design criteria for settling tank.	07
Q.4 (a) List the standards for raw and treated water.	03
(b) Draw any one basin for sedimentation and flotation.	04
(c) Explain CO measurement.	07
Q.5 (a) Explain Turbidity measurement in detail.	03
(b) Role of NGO in Environment Protection.	04
(c) Explain liquid chromatography.	07
Q.6 (a) Explain hydrocarbon detector in detail	03
(b) Difference between Portable and Stationary Instruments.	04
(c) Explain Gas chromatography in detail.	07
Q.7 (a) Explain electron capture detector.	03
(b) Explain the measurement technique for NO _x .	04
(c) Explain soap bubbler method.	07
Q.8 (a) Explain Vane anemometer in detail.	03
(b) Explain ECD in detail.	04
(c) Explain waste water treatment in detail.	07
