Seat No.: _____ Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VII (NEW) EXAMINATION – WINTER 2017

Subject Code: 2171305 **Date: 10/11/2017**

Subject Name: Environmental Monitroing and Statistics(Departmental Elective - II)

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)	Enumerate the importance of environmental monitoring.	03
	(b)	Explain following: (1) Acid mine drainage, (2) Physical contaminants.	04
	(c)	Write different steps involved for water monitoring. How are you going to implement these steps.	07
Q.2	(a)	What is environmentally transmitted pathogen? Give at least three examples.	03
	(b)	Describe air sampling techniques.	04
	(c)	Elucidate the spatial and temporal environmental characteristics.	07
		OR	
	(c)	Explain ground water monitoring by describing objectives, location of monitor wells, well construction design.	07
Q.3	(a)	Describe chemical contaminants with three examples.	03
	(b)	Describe fate and migration of contaminants in ground.	04
	(c)	Analyze the mechanism of physical contaminant and possible control methods.	07
		OR	
Q.3	(a)	What is an environmental characteristics?	03
	(b)	Describe sample variables with suitable examples.	04
	(c)	Elaborate water sampling techniques. Describe socio-economic factors related with water monitoring.	07
Q.4	(a)	Describe four types of environmental monitoring.	03
	(b)	Construct a frequency distribution table.	04
	(c)	Define: correlation, covariance and standard deviation.	07
		OR	
Q.4	(a)	Describe air monitoring standards.	03
	(b)	How to store microbial contaminants?	04
	(c)	Write different processes that lead to acid mine drainage.	07
Q.5	(a)	What is regression analysis?	03
	(b)	Discuss the operation of an electrostatic precipitator.	04
	(c)	Describe electrometric and spectroscopic method.	07
		OR	
Q.5	(a)	Explain interpolation.	03
	(b)	Describe sample processing microbial contaminant.	04
	(c)	Describe normal probability function? Explain by giving suitable examples.	07