

Enrolment No./Seat No _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER-V (NEW) EXAMINATION – WINTER 2024

Subject Code:2150603

Date:05-12-2024

Subject Name:Environmental Engineering

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.
4. Simple and non-programmable scientific calculators are allowed.

		Marks
Q.1	(a) State the role of microorganisms in the environment.	03
	(b) Differentiate quality wise surface water and ground water sources.	04
	(c) Give IS standards for drinking water in India.	07
Q.2	(a) Differentiate between: BOD and COD.	03
	(b) Enlist and explain any two methods of population forecasting.	04
	(c) What cause acidity and alkalinity in water? Describe the procedure of laboratory analysis of acidity.	07
OR		
	(c) Explain different types of water demands that are to be considered while designing the water supply system of a town.	07
Q.3	(a) Explain working of bell type flushing cistern with sketch.	03
	(b) Write a short note on sewage sickness.	04
	(c) State the principles of house drainage system.	07
OR		
Q.3	(a) Explain the Difference between temporary and permanent hardness.	03
	(b) Write a short note on sewage sickness.	04
	(c) Which are the main components of house drainage system? Explain different types of traps in detail.	07
Q.4	(a) Discuss different compositions of typical Indian solid waste	03
	(b) Write a short note on Aerobic Decomposition.	04
	(c) Why solid waste management is important. Draw solid waste management system flow chart with brief detail.	07
OR		
Q.4	(a) Define the following terms : (1)Vent pipe,(2) Rainwater pipe, (3)soil pipe	03
	(b) Write effects of Air Pollution on Property and Material.	04
	(c) Enumerate different air pollution control devices and explain the function of electrostatic precipitator in detail.	07
Q.5	(a) Write note on EIA.	03
	(b) Explain in brief The environment (Protection) Act – 1986.	04

(c) Define Noise pollution and its unit of measurement. Which are the sources of Noise pollution? **07**

OR

Q.5 (a) Give classification of source of air pollution. **03**

(b) Explain sanitary land filling in detail with its merits and demerits. **04**

(c) Explain in detail the D.O. sag curve. **07**
