

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (NEW) EXAMINATION – WINTER 2023****Subject Code:2150603****Date:13-12-2023****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) Discuss factors affecting water demand.	03
	(b) Describe the different types of Bacteria.	04
	(c) Discuss types of solid waste/refuse.	07
Q.2	(a) Define any Three: Night Soil, Hazardous waste, BOD, COD, Hardness.	03
	(b) Draw House Drainage Plan.	04
	(c) Explain various types of traps commonly used.	07
	OR	
	(c) Enlist method for the disposal of solid waste and explain with a neat sketch any one.	07
Q.3	(a) Explain types of solid waste collection systems.	03
	(b) Discuss in detail Bacterial growth curves in terms of mass.	04
	(c) Enlist and explain various physical characteristics of water.	07
	OR	
Q.3	(a) Short Note: The water (prevention and control of pollution) Act – 1974.	03
	(b) Explain water borne diseases and their control.	04
	(c) What do you understand by self-purification property of a stream? Explain the factors affecting this property.	07
Q.4	(a) Note on disposal of sewage in sea water.	03
	(b) Enlist the systems of plumbing used for house drainage and explain 'Two pipe system'.	04
	(c) Short Note: Biomedical waste Management	07
	OR	
Q.4	(a) Explain the terms (1) Acidity (2) Alkalinity (3) Hardness	03
	(b) Write a short note on MPN.	04
	(c) Define BOD. Draw a typical BOD curve and derive the first stage BOD equation.	07
Q.5	(a) Briefly discuss the factors affecting solid waste generation in a city.	03
	(b) Explain the zone of pollution along the stream.	04
	(c) What is Noise pollution? State the adverse effects of noise pollution in human being. How traffic noise can be reduced?	07
	OR	
Q.5	(a) Short Note: Sanitary Land Filling	03
	(b) Short Note: Environmental Protection Act	04
	(c) Explain classification and sources of air pollutants.	07
