

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER-I&II EXAMINATION – SUMMER 2025

Subject Code:3110007

Date:02-07-2025

Subject Name:Environmental Sciences

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) Define: Atmosphere, Hydrosphere, Biosphere.	03
	(b) Explain role of Environmental engineer.	04
	(c) How does our interaction with the environment impact the world around us, and what can we do to promote a healthier and more sustainable environment.	07
Q.2	(a) What are some common causes of water pollution in rivers and lakes.	03
	(b) Write short note on Water quality parameter	04
	(c) Explain the concept of eutrophication with causes, effect and control measure.	07
	OR	
	(c) Explain the concept of a sanitary landfill and outline its key features. How does it differ from traditional open dumping methods?	07
Q.3	(a) Name three common air pollutants found in urban areas and briefly explain their sources.	03
	(b) Explain the differences between primary and secondary air pollutants, and provide examples of each.	04
	(c) Explain the different categories or types of biomedical waste, and provide specific examples for each category. How does the proper classification and segregation of biomedical waste contribute to safe and responsible disposal practices in healthcare facilities?"	07
	OR	
Q.3	(a) What are some common health problems that can result from exposure to excessive noise, and how can individuals protect themselves from noise-related health risks?	03
	(b) What are some common sources of noise pollution in urban areas, and how can individuals mitigate its impact on their daily lives.	04
	(c) Explain the importance of effective e-waste management in the modern world. Describe the roles and responsibilities of consumers, manufacturers, governments, and recycling facilities.	07
Q.4	(a) What is global warming, and what are its primary causes?	03
	(b) What is a carbon footprint, and why is it a key concern in the context of environmental sustainability?	04
	(c) What is the Cleaner Development Mechanism (CDM), and how does it play a role in global efforts to reduce greenhouse gas emissions?	07
	OR	
Q.4	(a) What role does deforestation play in global warming, and how can it be mitigated?	03
	(b) Explain the causes and consequences of ozone layer depletion.	04
	(c) Describe the causes and consequences of acid rain. How does it contribute to air pollution and environmental damage?	07
Q.5	(a) What is the primary objective of green building design and construction?	03
	(b) Define the concept of a smart city and explain how it aims to improve urban living.	04
	(c) Explain the importance of the "Reuse" principle in waste reduction and resource conservation, and provide real-world examples of reuse practices.	07

OR

- Q.5**
- (a) How do green buildings contribute to energy efficiency and resource conservation? **03**
 - (b) Enlist features of smart city. **04**
 - (c) Explain in detail the concept of the 4R's in sustainable resource management. Provide practical examples for each of these principles and discuss their significance in minimizing waste and conserving resources. **07**
