

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER-I & II(NEW) EXAMINATION – WINTER 2022**

Subject Code:3110007

Date:15-03-2023

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: Environment, Ecology, Pollution	03
	(b) What is environmental degradation? List out causes of environmental degradation.	04
	(c) Discuss about various spheres of environment and their interrelationship with suitable example.	07
Q.2	(a) Give classification of various air pollutants.	03
	(b) Define: Garbage, Incineration, Eutrophication, Particulate matter (PM)	04
	(c) Discuss about major water pollutants and their effects.	07
<b>OR</b>		
	(c) Explain structure of atmosphere with neat sketch	07
Q.3	(a) Differentiate between point and non-point source of water pollution.	03
	(b) Differentiate between Recycle and Recover.	04
	(c) Discuss in detail about various types of solid waste.	07
<b>OR</b>		
Q.3	(a) Justify the need of E-waste management.	03
	(b) Explain 4R concept with suitable example.	04
	(c) Enlist sources of biomedical waste. Discuss about colour coding for segregation of biomedical waste.	07
Q.4	(a) Note down various sources of noise pollution.	03
	(b) State the measures to control noise pollution	04
	(c) What is green house effect? Briefly discuss various green house gases (GHG).	07
<b>OR</b>		
Q.4	(a) State various methods for disposal of solid waste.	03
	(b) List out various effects of E-waste on human and environment.	04
	(c) What is acid rain? Discuss about effects and control of acid rain.	07
Q.5	(a) Enlist steps for minimizing carbon footprint.	03
	(b) Briefly discuss about need of sustainable development.	04
	(c) Explain various benefits of Green Building.	07
<b>OR</b>		
Q.5	(a) List out various international steps for mitigation of global change.	03
	(b) Distinguish between primary and secondary carbon footprint.	04
	(c) Discuss about various features of smart city.	07