

# GUJARAT TECHNOLOGICAL UNIVERSITY

## BE- SEMESTER-I & II EXAMINATION – WINTER 2024

**Subject Code:3110007**

**Date:18-01-2025**

**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.

- Q.1** (a) Discuss the scope of environmental Sciences. **03**  
(b) Explain various components of environment. **04**  
(c) Describe the objectives and guiding principles of Environmental Sciences. **07**
- Q.2** (a) Differentiate between sound and noise. **03**  
(b) Define and explain: (i) Pollution (ii) Ecosystem (iii) Whole some water **04**  
(iv) Environmental degradation  
(c) Discuss about major water pollutants and their effects. **07**
- OR**
- (c) Write a short note on water quality parameters. **07**
- Q.3** (a) What are the primary sources of e-waste generation in India? Explain with **03**  
examples.  
(b) Enlist & explain the factors affecting municipal solid waste generation. **04**  
(c) Describe the effects of air pollution on plants, properties and human beings. **07**
- OR**
- Q.3** (a) What are the steps that should be taken by the government and industry **03**  
stakeholders to improve e-waste management practices?  
(b) State different methods of solid waste disposal. Explain any one in detail. **04**  
(c) Discuss sources & effects of noise pollution. **07**
- Q.4** (a) Discuss the need of sustainable development. **03**  
(b) State different methods of biomedical waste treatment. Explain any one in **04**  
detail.  
(c) Write a short note on acid rain. **07**
- OR**
- Q.4** (a) Discuss the benefits for the calculations of carbon footprints. **03**  
(b) Give the different classification of biomedical waste. **04**  
(c) Write a short note on global warming due to greenhouse gases. **07**
- Q.5** (a) Discuss the steps that should be taken at the individual level to reduce noise **03**  
pollution in their local communities.  
(b) Write a brief note on concept of smart city. **04**  
(c) Describe the applications of 4R principle with example. **07**
- OR**
- Q.5** (a) Discuss the measures to control the water pollution. **03**  
(b) Define the green building and give its objectives. **04**  
(c) Explain need of 4R concept for waste minimization. **07**