

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE- SEMESTER-I & II(NEW)EXAMINATION – SUMMER 2022****Subject Code:3110007****Date:23-08-2022****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 need of sustainable development. **03**  
(b) Describe the various components of environment. **04**  
(c) Explain how environmental science is important for various engineering disciplines. **07**

- Q.2** (a) What is environmental science? **03**  
(b) Define environmental pollution and give the various causes of it. **04**  
(c) Explain the effects of toxic substance present in water and biomagnification. **07**

**OR**

- (c) Discuss the various water quality parameters in detail. **07**

- Q.3** (a) Narrate the concept of 4R. **03**  
(b) Give the different sources of water pollution. **04**  
(c) Explain the role of individual in environmental protection. **07**

**OR**

- Q.3** (a) Differentiate between recycle and reuse with example. **03**  
(b) Write a short note on eutrophication. **04**  
(c) Explain the effects of air pollution on human beings and property. **07**

- Q.4** (a) Differentiate between sound and noise. **03**  
(b) Give the classification of air pollutants. **04**  
(c) Enlist and explain different methods used for treatment of biomedical waste. **07**

**OR**

- Q.4** (a) What are effects of noise pollution? **03**  
(b) Give the sources of air pollution. **04**  
(c) Explain the various methods used for solid waste disposal. **07**

- Q.5** (a) Enlist different sources of biomedical waste. **03**  
(b) Discuss the objectives of green building. **04**  
(c) Write a short note on acid rain. **07**

**OR**

- Q.5** (a) Explain how e-waste should be managed. **03**  
(b) Enlist the core infrastructure elements of a smart city. **04**  
(c) Write a short note on ozone layer depletion. **07**