

Seat No./Enrollment No.: _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BACHELOR OF ENGINEERING – SEMESTER 1 – EXAMINATION – SUMMER 2026

Subject Code: 3110007

Date: 09/07/2026

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) List various sources of water pollution in society. **03**
(b) Explain the classification of water pollutants with suitable examples. **04**
(c) Explain sources, effects and control measures of water pollution. **07**
- Q.2** (a) Identify major common air pollutants present in urban areas. **03**
(b) Describe the effects of common air pollutants on environment. **04**
(c) Apply suitable measures to control air pollution in an industrial area. **07**
- OR
- Q.2** (c) Explain causes, effects and preventive measures of noise pollution. **07**
- Q.3** (a) State the causes of noise pollution. **03**
(b) Explain solid waste generation and management methods. **04**
(c) Apply proper management practices for biomedical waste in hospitals. **07**
- OR
- Q.3** (a) State the difference between sound and noise. **03**
(b) Discuss the causes and effects of ozone layer depletion. **04**
(c) Explain climate change, acid rain and carbon footprint in detail. **07**
- Q.4** (a) Define global warming and greenhouse effect. **03**

(b) Explain the concept of sustainable development. **04**

(c) Apply international mitigation steps for reducing global environmental change. **07**
- OR
- Q.4** (a) State any three objectives of Green Building. **03**

(b) Describe the fundamental principles of Green Buildings. **04**

(c) Explain benefits and examples of Green Buildings. **07**
- Q.5** (a) List various applications of recycle and reuse in engineering fields. **03**

(b) Explain the concept and importance of Smart Cities. **04**

- (c) Apply smart city concepts for improving urban infrastructure and services. **07**
- OR
- Q.5** (a) Identify & classify major examples of E-waste. **03**
- (b) Discuss the principles of 4R's in environmental protection. **04**
- (c) Apply recycle and reuse principles in civil, mechanical and electrical engineering fields. **07**
