

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-I & II EXAMINATION – WINTER 2025****Subject Code:3110007****Date:15-01-2026****Subject Name:Environmental Sciences****Time:02:30 PM TO 05:00 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

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|------------|---|-----------|
| Q.1 | (a) Explain the following terms: (i) Eco System (ii) Environmental Degradation (iii) Environmental Education. | 03 |
| | (b) Discuss the need of sustainable development. | 04 |
| | (c) Write down the significance of environmental science in different engineering discipline. | 07 |
| Q.2 | (a) Describe briefly various types of pollutions. | 03 |
| | (b) Give the classification of air pollutants. | 04 |
| | (c) Discuss the sources and effects of water pollution. | 07 |
| | OR | |
| | (c) State the parameters of water which are to be tested for determining the quality of water and explain any four. | 07 |
| Q.3 | (a) Enlist the factors affect on the generation rate of solid waste. | 03 |
| | (b) Write a brief note on “Eutrophication”. | 04 |
| | (c) Explain the effects of any two air pollutants on human health & properties. | 07 |
| | OR | |
| Q.3 | (a) What is E–waste? Enlist sources of E–waste. | 03 |
| | (b) Difference between Sound & Noise. Discuss effects of Noise pollution. | 04 |
| | (c) Explain the Structure of atmosphere in detail. | 07 |
| Q.4 | (a) Explain the benefits of green building. | 03 |
| | (b) Enlist the core infrastructure elements of a smart city. | 04 |
| | (c) Write a short note on Global warming. | 07 |
| | OR | |
| Q.4 | (a) Explain green building technology and state its objectives. | 03 |
| | (b) Suggest some ways to convert wastes to resources. | 04 |
| | (c) Write a short note on Ozone layer depletion. | 07 |
| Q.5 | (a) Enlist different sources of biomedical waste. | 03 |
| | (b) Discuss the advantages of calculating carbon footprints. | 04 |
| | (c) Discuss the international initiatives for mitigating global environmental issues. | 07 |
| | OR | |
| Q.5 | (a) What do you understand by Clean Development Mechanism (CDM)? | 03 |
| | (b) Distinguish between primary & secondary carbon footprint. | 04 |
| | (c) Explain the principles of 4R’s and describe how these principles are applicable to control environmental pollution. | 07 |
