

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-I &II (NEW) EXAMINATION – SUMMER-2019****Subject Code: 3110007****Date: 15/06/2019****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.

		Marks
Q.1	(a) Why environmental education is necessary in engineering curriculum?	03
	(b) Describe briefly various types of pollutions.	04
	(c) What are the sources of water pollution? Discuss the effects of water pollution.	07
Q.2	(a) Discuss the impact of technology on environment.	03
	(b) State the Indian Ambient air quality standards.	04
	(c) Enlist common air pollutants. Discuss the sources and effects of any three air pollutants.	07
OR		
	(c) What is noise pollution? Describe the sources and effects of noise pollution.	07
Q.3	(a) Justify the statement “biomedical wastes are to be segregated before disposal”.	03
	(b) What is e-waste? Explain the methods to manage e-waste.	04
	(c) What is global warming? Why is it considered to be one of the major global environmental issues?	07
OR		
Q.3	(a) Explain the importance of sustainable development.	03
	(b) What are the causes and effects of acid rain?	04
	(c) Describe different methods of solid waste collection and explain the hazards associated with improper handling of this waste.	07
Q.4	(a) Enlist various green house gases and discuss the effects of any one on environment.	03
	(b) Explain green building technology and state its objectives.	04
	(c) What do you understand by Clean Development Mechanism (CDM)? Discuss its objectives, advantages and limitations.	07
OR		
Q.4	(a) Discuss the advantages of calculating carbon footprints.	03
	(b) Enlist different green building rating systems and explain any one in detail.	04
	(c) Discuss the international initiatives for mitigating global environmental issues.	07
Q.5	(a) What do you understand by 4R's.	03
	(b) Suggest some ways to convert wastes to resources.	04
	(c) Explain the concepts of smart cities with suitable example.	07
OR		
Q.5	(a) Discuss the benefits of green buildings.	03
	(b) Describe briefly about smart cities development in India.	04
	(c) Explain the principles of 4R's and describe how these principles are applicable to control environmental pollution.	07