

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER– I & II (NEW) EXAMINATION – WINTER 2019****Subject Code: 3110007****Date: 16/01/2020****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
<b>Q.1</b>	(a) Enlist various types of environmental pollutions.	<b>03</b>
	(b) List scope & principles of environmental sciences & explain any one in detail.	<b>04</b>
	(c) Explain the role of various engineering disciplines in environmental protection.	<b>07</b>
<b>Q.2</b>	(a) Explain the effects of turbidity on drinking water quality.	<b>03</b>
	(b) Give the classification of water pollutants.	<b>04</b>
	(c) Write a short note on Global warming.	<b>07</b>
	<b>OR</b>	
	(c) Write a short note on Acid rain.	<b>07</b>
<b>Q.3</b>	(a) Explain the benefits of Green building.	<b>03</b>
	(b) Give the classification of Air Pollutants.	<b>04</b>
	(c) Explain the effects of any two air pollutants on human health & properties.	<b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) Name the organizations involved in Green building rating system.	<b>03</b>
	(b) What is E – waste? Enlist sources of E – waste.	<b>04</b>
	(c) Difference between Sound & Noise. Discuss sources & effects of Noise pollution.	<b>07</b>
<b>Q.4</b>	(a) Explain examples of paper recycle & reuse.	<b>03</b>
	(b) Define sustainable development.	<b>04</b>
	(c) Enlist & Explain the factors affecting municipal solid waste generation.	<b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) Explain examples of plastic recycle & reuse.	<b>03</b>
	(b) Enlist the mitigation measures for climate change.	<b>04</b>
	(c) Explain need of 4R concept for waste minimization.	<b>07</b>
<b>Q.5</b>	(a) What do you understand by carbon footprint?	<b>03</b>
	(b) Distinguish between primary & Secondary carbon footprint.	<b>04</b>
	(c) Write a brief note on concept of Green Building.	<b>07</b>
	<b>OR</b>	
<b>Q.5</b>	(a) Explain Clean Development Mechanism (CDM)	<b>03</b>
	(b) Explain the effects of Ozone depletion on Human health & plants.	<b>04</b>
	(c) Write a brief note on concept of Smart City.	<b>07</b>

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

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

**BE – SEMESTER 1&2 EXAMINATION – SUMMER 2020**

**Subject Code: 3110007**

**Date: 07/11/2020**

**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
<b>Q.1</b>	(a) With proper example differentiate between Pollution and Pollutants.	<b>03</b>
	(b) Define the following Terms: (i) Environment (ii) Environmental Degradation (iii) Global Warming (iv) sustainable development	<b>04</b>
	(c) Discuss about the need of environmental education in various engineering discipline?	<b>07</b>
<b>Q.2</b>	(a) Define the following Terms: (i) Water Pollution (ii) Noise (iii) Biomedical waste	<b>03</b>
	(b) Write a brief note on “Eutrophication.”	<b>04</b>
	(c) State the parameters of water which are to be tested for determining the quality of water and explain any four.	<b>07</b>
	<b>OR</b>	
	(c) Discuss about the Biomedical waste management practices done in India for the disposal of biomedical waste.	<b>07</b>
<b>Q.3</b>	(a) Give the Classification of Air Pollutants.	<b>03</b>
	(b) List down the sources of Carbon Monoxide and also discuss about the effect of it on Human Health.	<b>04</b>
	(c) Explain the Structure of atmosphere in detail.	<b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) Define E-waste. State the need of E-waste management.	<b>03</b>
	(b) Enlist the effects of Noise Pollution on Human Health.	<b>04</b>
	(c) Enlist the various metals/ metallic compound present in the E-Waste and also discuss about the effects of such compounds on human health and Environment.	<b>07</b>
<b>Q.4</b>	(a) Enlist the various form of Environmental Pollution and discuss about the pollution caused by improper management of solid waste.	<b>03</b>
	(b) Discuss about the need of sustainable development for this era.	<b>04</b>
	(c) Write a detail note on “Clean Development Mechanism”.	<b>07</b>

**OR**

- Q.4** (a) Differentiate between Global Warming and green house effect. **03**  
(b) List down the chemicals responsible for the ozone layer depletion. **04**  
(c) Write a detail note on “Carbon Footprint”. **07**

- Q.5** (a) Explain the concept of smart City. **03**  
(b) With example explain the features of Green Building. **04**  
(c) Write a note on “Fundamental Principles of Green Building” **07**

**OR**

- Q.5** (a) Differentiate between the concept of Recycle and Reuse. **03**  
(b) Enlist the benefits of Green Building. **04**  
(c) Discuss how the 4R’s concept is useful to protect the environment. **07**

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**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**