

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

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

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

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 |

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**