

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV (NEW) EXAMINATION – WINTER 2023****Subject Code:3141308****Date:11-01-2024****Subject Name: Environmental Resource management****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.

		MARKS
Q.1	(a) Justify the statement “Polluter Pay Principle”.	03
	(b) Briefly explain “Population explosions: causes & consequences”.	04
	(c) Looking at present scenario which alternative energy source has more potential? Justify your answer.	07
Q.2	(a) Define and classify fossil fuel.	03
	(b) Define and explain with example Consumptive and non-Consumptive uses of Water.	04
	(c) Write a short note on Water Budget of India.	07
	OR	
	(c) Give difference between Renewable and Non-renewable energy resources with example.	07
Q.3	(a) Identify sources of forest resources.	03
	(b) List any four disadvantages of using fossil fuels for the production of energy.	04
	(c) Elaborate method rain water harvesting and water shed management.	07
	OR	
Q.3	(a) Express the Importance of biodiversity.	03
	(b) Define the two forms in which energy from sea is available for our use and write one limitation of each.	04
	(c) Discuss the uses & Consumption of water for domestic, industrial & agriculture sectors.	07
Q.4	(a) Bio gas is considered to be a boon to the farmers. Give reasons.	03
	(b) What are the advantages of nuclear energy?	04
	(c) What are the purposes, components and advantages of social forestry?	07
	OR	
Q.4	(a) Mention limitations in harnessing wind energy on a large scale.	03
	(b) Describe how hydro energy can be converted into electrical energy. Write any two limitations of hydro energy.	04
	(c) What is the solar energy? Explain how a residential solar system functions.	07
Q.5	(a) How to calculate Carbon footprint?	03

- (b) Highlight the National & international steps taken for resource conservation. **04**
- (c) Give difference between Malthusian theory of maximum Population and Optimum Population theory. **07**

OR

- Q.5**
- (a) Explain role of CDM in environmental issues. **03**
 - (b) Highlight the role of CO₂ in global warming and enlist other important green house Gases. **04**
 - (c) List out the various population forecasting methods and explain any one with its formula. **07**
