

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER– IV(NEW) EXAMINATION – SUMMER 2023

Subject Code:3141308**Date:07-07-2023****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) Enlist the various forms of alternative Sources of Energy.	03
	(b) Discuss the energy requirement scenario in the developing countries and its consequences on environment.	04
	(c) Differentiate renewable and non-renewable energy resources and discuss the effect of overpopulation on energy problems.	07
Q.2	(a) Write down the application of solar energy.	03
	(b) Explain how the forests act as “air – purifiers” and as “carbon storage tanks”	04
	(c) What is the ecological importance of forest? Discuss the causes and consequences of deforestation.	07
	OR	
	(c) Write a short note on Water Budget of India.	07
Q.3	(a) Discuss forest and wildlife resources.	03
	(b) Write a short note on Geothermal energy.	04
	(c) Suggest few steps for water conservation in industry, home & Agricultural.	07
	OR	
Q.3	(a) Define “Social Forestry”. Explain objective of social forestry.	03
	(b) Enlist & explain the reasons for declination of Biodiversity	04
	(c) Write the unique characteristics of water and explain with example.	07
Q.4	(a) Describe the growth rate equation.	03
	(b) Write down the environmental consequences of population explosion.	04
	(c) Enlist different methods of Population Forecasting and explain any one with its formula and example.	07
	OR	
Q.4	(a) Explain age structure diagram of population.	03
	(b) Explain the concept and application of doubling time.	04
	(c) Give difference between Malthusian theory of maximum Population and Optimum Population theory.	07
Q.5	(a) Define: (i) CDM (ii) GNP (iii) Sustainable development.	03

- (b) Distinguish between primary and secondary carbon footprint. **04**
- (c) Discuss principles & challenges of sustainable development. **07**

OR

- Q.5**
- (a) Enlist steps for minimizing carbon footprint. **03**
 - (b) Discuss need of sustainable development. **04**
 - (c) Briefly discuss National & international steps for resource conservation. **07**
