

# GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER-IV (NEW) EXAMINATION – WINTER 2024

Subject Code:3141308

Date:19-11-2024

Subject Name: Environmental Resource management

Time:02:30 PM TO 05:00 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) Define Energy & forms of Energy.	03
	(b) Classify the natural resource with suitable examples.	04
	(c) Write a brief note on water resources of India.	07
Q.2	(a) Define the following terms: Tangible Resource, Resource utilization, Resource depletion	03
	(b) Discuss the unique characteristics of the water.	04
	(c) Discuss the methods for resource conservation with suitable examples.	07
	OR	
	(c) Explain the options for water conservation at home & college.	07
Q.3	(a) Define the following terms: Brackish water, Wholesome water, Gray water	03
	(b) Discuss the human impacts on the hydrologic cycle.	04
	(c) How solar energy converted to electrical power & what are the problems in this regard?	07
	OR	
Q.3	(a) Discuss the sources of energy in the world.	03
	(b) Compare the advantages & disadvantages of oil, coal & natural gas as energy sources.	04
	(c) Name the sectors which require major energy demand & write down the Global Energy consumption pattern.	07
Q.4	(a) Discuss the ecological & economic services provided by the forest.	03
	(b) Explain how the forests act as “air purifier “and as “carbon storage tanks”.	04
	(c) What are the purposes, components and advantages of social forestry?	07
	OR	
Q.4	(a) Define the following terms: Ecological extinction, Local extinction, Mass extinction	03
	(b) Write an essay on the international initiatives in forest conservation.	04
	(c) Define sustainable development & enlist the 17 goals of SDs.	07
Q.5	(a) What is a biodiversity hotspot?	03
	(b) Write & explain the IPAT equation.	04
	(c) Enlist the methods of population forecasting and briefly explain the arithmetic & geometric methods.	07
	OR	
Q.5	(a) What are the benefits of calculation of carbon footprints?	03
	(b) Define the following terms: Population dynamics, Doubling time, Population density, Migration rate	04
	(c) What is clean development mechanism (CDM)? What are the limitations of CDM.	07

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