

GUJARAT TECHNOLOGICAL UNIVERSITY**BE – SEMESTER- VII EXAMINATION-SUMMER 2023****Subject Code: 3173522****Date: 21/06/2023****Subject Name: Sustainable development and Green Technology****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) Explain three R's of waste management?	03
	(b) Explain MFC technology	04
	(c) Describe Sustainable goals in detail.	07
Q.2	(a) What is the role of phytoremediation in maintaining environmental sustainability?	03
	(b) Explain green synthesis of ecofriendly nanoparticles and their application	04
	(c) What is the importance of nitrogenous fertilizer? Give their advantages and disadvantages in detail	07
	OR	
	(c) Why the agriculture has to be sustainable? Explain in relevance to population growth	07
Q.3	(a) Describe some examples of sustainable development	03
	(b) Enlist application of MFC	04
	(c) Describe Biofuels for Sustainable Development	07
	OR	
Q.3	(a) What are the advantages of green technology?	03
	(b) Explain the domains of sustainable development.	04
	(c) List out and Explain Sustainable farming practices.	07
Q.4	(a) Explain sustainable agriculture and its benefit.	03
	(b) What are the goals of sustainable agriculture?	04
	(c) Explain the manufacturing process and sources of waste generation in different types of industries: (a) Sugar Industry (b)Pulp Industry	07
	OR	
Q.4	(a) What do you mean by waste minimization.	03
	(b) Describe advantages and limitations of phytoremediation.	04
	(c) Explain the manufacturing process and sources of waste generation in different types of industries: (a) Textile Industry (b)Tannery Industry	07
Q.5	(a) Define nanotechnology and list down its applications	03
	(b) Explain internal and external barriers of CP	04
	(c) Describe the step and task of CP methodology.	07
	OR	
Q.5	(a) What are the techniques for good waste minimization Practice?	03
	(b) Describe concept of CP.	04
	(c) Explain ZLD in detail	07
