

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-IV (NEW) EXAMINATION – WINTER 2020****Subject Code:3140609****Date:15/02/2021****Subject Name:Civil Engineering - Societal & Global Impact****Time:02:30 PM TO 04:30 PM****Total Marks:56****Instructions:**

1. Attempt any FOUR questions out of EIGHT questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		Marks
Q.1	(a) Explain pre-industrial society and its features in brief	03
	(b) Enlist major Civil Engineering Breakthroughs and innovations.	04
	(c) Write a short note on Green Revolution in India	07
Q.2	(a) Explain in short contribution of civil engineering in shaping the world.	03
	(b) Enlist and describe in short any 2 ancient and any 2 modern Civil engineering Marvels	04
	(c) Explain the concept of smart city. Also explain the requirements of smart cities.	07
Q.3	(a) What is ecological footprint? Explain.	03
	(b) Discuss codes and standards governing infrastructure development.	04
	(c) Discuss in detail various methodologies for ensuring Sustainability in construction.	07
Q.4	(a) What do you understand by environmental metrics? Explain.	03
	(b) Explain any two traditional and futuristic methods for water treatment.	04
	(c) Explain in detail how interlinking of dams, canals and rivers help in controlling floods.	07
Q.5	(a) Explain the objectives of solid waste management.	03
	(b) Explain the need and methods for recycling wastes.	04
	(c) Enlist major air pollutants and explain effect of air pollution on human health.	07
Q.6	(a) What is the role of Urban Arts Commission?	03
	(b) Discuss advance construction techniques for better sustainability.	04
	(c) Write short note on LEED rating System for green buildings.	07
Q.7	(a) Enlist and discuss purposes of EIA.	03
	(b) Write a short note on wind energy	04
	(c) Discuss in detail contribution of Civil engineering in employment in India.	07
Q.8	(a) How is sound controlled in built environment?	03
	(b) Explain the methods for repairs and rehabilitation of structures.	04
	(c) Write a short note on societal and global impact of civil Engineering.	07
