

Enrolment No./Seat No _____

GUJARAT TECHNOLOGICAL UNIVERSITY

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

Subject Code:3140609

Date:22-11-2024

Subject Name:Civil Engineering - Societal & Global Impact

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) What is GIS? Give applications of GIS.	03
	(b) Describe the importance of civil engineering in shaping the world.	04
	(c) Write a brief note on “Green Revolution in India”.	07
Q.2	(a) What are the challenges of mega cities?	03
	(b) Describe modern civil engineering Marvels and wonders. Explain any Four.	04
	(c) Explain the concept of smart city. Also explain the requirements of smart cities.	07
	OR	
	(c) Write a short note on: Smart future roads.	07
Q.3	(a) What is infrastructure? Give its importance.	03
	(b) Describe impact of smart cities on Indian infrastructure.	04
	(c) Describe sources of air pollution.	07
	OR	
Q.3	(a) Write a short note on: Hyper loops.	03
	(b) Discuss future innovations at airports?	04
	(c) Discuss types of chlorination.	07
Q.4	(a) What do you understand by environmental metrics? Explain.	03
	(b) Explain global warming phenomena. What are its effects?	04
	(c) Enlist major air pollution with their sources and effects.	07
	OR	
Q.4	(a) Write short note on: Rainwater Harvesting.	03
	(b) What is solid waste management? What are its objectives?	04
	(c) Explain in detail how interlinking of dams, canals and rivers help in controlling floods.	07
Q.5	(a) Give benefits of smart building.	03
	(b) Write short note on: Recycling of materials.	04
	(c) Discuss in detail contribution of Civil engineering in employment in India.	07
	OR	

Q.5	(a)	Explain measure for climate control in built environment.	03
	(b)	Describe methodology for the repair of structures.	04
	(c)	Discuss contribution of civil engineering to GDP in India.	07
