

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-IV EXAMINATION – SUMMER 2025

Subject Code:3140609

Date:15-05-2025

Subject Name:Civil Engineering - Societal & Global Impact

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) Write short note on agricultural revolution of India.	03
	(b) Discuss Automation in Civil engineering.	04
	(c) Explain BIM its importance, uses and benefits in detail.	07
Q.2	(a) Enlist Civil engineering marvels and wonders	03
	(b) What are the future trends and visions in civil engineering?	04
	(c) How is geothermal energy utilized, What are the pros and cons of using geothermal energy?	07
	OR	
	(c) What are the current and future prospects of wind energy in India?	07
Q.3	(a) Write short note on underwater tunnels.	03
	(b) Describe features of smart cities.	04
	(c) Describe Smart future Road, Railway, seaports and airports.	07
	OR	
Q.3	(a) Explain watershed management.	03
	(b) Why is infrastructure important, and what role does it play in economic and social development?	04
	(c) Discuss Codes and Standards Governing Infrastructure Development.	07
Q.4	(a) Explain Solid waste management with objectives.	03
	(b) What is an Environmental Impact Assessment (EIA), and why is it important in the development process.	04
	(c) Explain Open dumping and sanitary landfills with advantage and disadvantages.	07
	OR	
Q.4	(a) Classify air pollutant on the basis of state of matter with examples.	03
	(b) Explain various methods of flood control.	04
	(c) What measures to be taken for controlling temperature and sound in built Environment.	07
Q.5	(a) Define Repair, restoration and retrofitting.	03
	(b) Discuss importance of recycling in day-to-day life.	04
	(c) What is built environment, what are components of Built Environment,	07
	OR	
Q.5	(a) Explain principles of lean construction management.	03
	(b) How greenhouse gases can be reduces in civil engineering projects.	04
	(c) Suggest various health and safety measures in civil engineering projects.	07