

Enrollment No./Seat No.:

GUJARAT TECHNOLOGICAL UNIVERSITY
Bachelor of Engineering - SEMESTER - VII EXAMINATION - WINTER 2025

Subject Code: 3170628

Date: 28-11-2025

Subject Name: Infrastructure for smart Cities

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) What do you understand by the term Smart City? List and explain the essential requirements that make a city 'smart'.	03
(b) Evaluate the benefits and challenges associated with the development of Smart Cities in India.	04
(c) What is a Green Building? Explain the concept and importance of green building in sustainable development.	07
Q.2 (a) What are aims and objectives of solar smart city.	03
(b) Give essentials for safety and security of smart city.	04
(c) What is cyber security? What is need for cyber security in a smart city?	07
OR	
(c) Write a detailed note on disaster management in smart city.	07
Q.3 (a) Describe various smart water management technologies.	03
(b) Describe various flood mitigation measures.	04
(c) Describe role of GPS in transport system management.	07
OR	
(a) Write a short note on: Fuels of future	03
(b) What is Intelligent Transport system? What are its purpose and application.	04
(c) Describe IoT based smart wastewater management systems for smart cities.	07
Q.4 (a) Enlist the features of smart car.	03
(b) Describe desired criteria for Housing in smart cities.	04
(c) Describe Integrated Infrastructure Management Systems for smart city.	07
OR	
(a) Explain smart Grid.	03
(b) Explain how urbanization is connected to environment.	04

- (c) Write about any two case-studies of smart cities in India 07
- Q.5** (a) Write in brief about PAN city project. 03
- (b) What are causes of floods and what are its effects. 04
- (c) Explain strategies for smart city mission in India. 07

OR

- (a) Write a note on water-meters 03
- (b) Explain the concept of E-ticketing. 04
- (c) Describe various methods for water resource conservation. 07
