

Enrollment No./Seat No.:

GUJARAT TECHNOLOGICAL UNIVERSITY

Bachelor of Engineering - SEMESTER - VII EXAMINATION - SUMMER 2025

Subject Code: 3170628

Date: 23-05-2025

Subject Name: Infrastructure for smart Cities

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.

	Marks
Q.1 (a) What is the concept of a Smart City?	03
(b) Briefly describe the history of Smart Cities in India	04
(c) Explain the key challenges in managing infrastructure in India. Suggest suitable solutions.	07
Q.2 (a) Define sustainable green buildings.	03
(b) What are the major threats related to cyber security in Smart Cities?	04
(c) Discuss the role of solar energy and ecology in the development of Smart Cities.	07
OR	
(c) Describe how safety, security, and disaster management are integrated in Smart City planning.	07
Q.3 (a) What is the role of GPS in intelligent transportation systems?	03
(b) Describe the function of GPS and GIS in managing urban traffic.	04
(c) Describe the integration of traffic safety management, mobility services, and e-ticketing in Smart City transportation planning	07
OR	
(a) Define smart vehicles	03
(b) What are the key features of Intelligent Transport Systems (ITS)?	04
(c) Explain the importance of clean fuels and electric vehicles in sustainable urban transport systems	07
Q.4 (a) What is flood management in urban planning?	03
(b) Briefly describe sustainable sanitation practices in Smart Cities	04
(c) Discuss the planning and development of water storage and conveyance systems in Smart Cities.	07
OR	
(a) What is a water conveyance system?	03

- (b) How does a sewerage system contribute to public health? 04
- (c) Explain various water conservation systems and their role in sustainable urban development 07
- Q.5** (a) What is an Integrated Infrastructure Management System (IIMS)? 03
- (b) Write a short note on Smart Cities Mission of India 04
- (c) Write a detailed case study of any one Smart City in India (e.g., Pune, Bhubaneswar, or Surat). 07

OR

- (a) List any two features of India's Smart City Guidelines. 03
- (b) Briefly describe one international policy or approach to Smart Cities. 04
- (c) Describe the Smart Cities Mission policy and its guidelines issued by the Government of India. 07
