

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (NEW) EXAMINATION – WINTER 2023****Subject Code:3170628****Date:16-12-2023****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 smart city? What are its objectives?	03
	(b) What are the advantages of green building?	04
	(c) Give SWOT (strengths, weaknesses, opportunities, and threats) analysis of any one smart city of India.	07
Q.2	(a) Give various cyber safety tips	03
	(b) Write short note on LAVASA	04
	(c) What are the smart city challenges in India?	07
	OR	
	(c) Explain various phases of Disaster management cycle.	07
Q.3	(a) Explain any three features of smart cars	03
	(b) Define Intelligent Transport System (ITS). Write down its objectives.	04
	(c) What do you understand by Satellite Navigation system? Explain NavIC in detail.	07
	OR	
Q.3	(a) What are the major problems in urban water supply system?	03
	(b) Explain Innovative sanitation solutions for smart city.	04
	(c) Explain causes of floods.	07
Q.4	(a) What are the key drivers and tools of ITS.	03
	(b) Write short note on Fuel Cell Electric Vehicle.	04
	(c) Explain National Road Safety Policy (2010)	07
	OR	
Q.4	(a) What are the objectives of Rain Water Harvesting?	03
	(b) What are the benefits of Water Smart City (WSC) approach?	04
	(c) Enlist various methods of water resource conservation, and explain in details (i) River Linking (ii) Increasing forest cover.	07
Q.5	(a) What are the benefits of Integrated Infrastructure Management system (IIMS)?	03
	(b) What are the challenges and solution for solar power plant?	04
	(c) Explain various steps for selection of smart city	07
	OR	
Q.5	(a) What are the four basic elements of early warning system (EWS)?	03
	(b) What is smart grid? Give key characteristics of the smart grid.	04
	(c) Explain the criteria's for housing in smart city?	07
