

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE(MINOR) - SEMESTER-VI EXAMINATION – SUMMER 2023

Subject Code:116AF02

Date:11-08-2023

Subject Name: Intelligent Transportation for Smart City

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 Intelligent Transportation System?	03
(b) Enlist various ITS user services.	04
(c) Write advantages & disadvantages of Intelligent Transportation System.	07
Q.2 (a) Explain how vehicle positioning system would be helpful to authorities.	03
(b) Describe features of smart road.	04
(c) Explain logical architecture for ITS with neat sketch.	07
OR	
(c) Explain physical architecture for ITS with neat sketch.	07
Q.3 (a) Write a short note on integrating ITS into transportation planning.	03
(b) Explain in detail relationship between problems, conventional approach and ITS approach.	04
(c) Write a short note on need for standardization of ITS standards and explain various aspects in detail.	07
OR	
Q.3 (a) Write a short note on advanced traveler information system.	03
(b) Explain about need of smart parking system in urban area.	04
(c) Describe features of adaptive traffic control system.	07
Q.4 (a) Explain in detail various services under center – roadside interface.	03
(b) Discuss application of ITS in public transportation system.	04
(c) Describe the methods of evaluation of ITS technologies.	07
OR	
Q.4 (a) Explain in detail various services under roadside – vehicle interface.	03
(b) Discuss role of ITS in transportation network operations.	04
(c) Describe how IDAS model can be used for ITS evaluation.	07
Q.5 (a) Write a short note on road pricing.	03
(b) What do you understand by smart road safety system? Explain in detail.	04
(c) Explain in detail about scope of development for ITS framework in your city.	07
OR	
Q.5 (a) Give advantages of Electronic Toll Collection System	03
(b) Explain in detail concept of coordinated traffic signals.	04
(c) Explain the application of ITS in public transportation system with the example of Ahmedabad BRTS.	07
