| Reg No.:_____ | | | Name:_____ |

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
FIRST SEMESTER (R) M Tech DEGREE EXAMINATION, FEBRUARY 2023

Discipline: CIVIL ENGINEERING

Course Code & Name: 221ECE056 GEOINFORMATICS IN TRANSPORTATION ENGINEERING

| Max. Marks: 60 | | Duration: 2.5 Hours |

PART A

		Answer all questions. Each question carries 5 marks	Marks
	1	Explain the concept of PCU and how it is helpful in capacity determination	(5)
	2	Briefly explain TAZ and Screen lines	(5)
	3	What are the basic components of GIS Software	(5)
	4	How GIS is used in Accident management	(5)
	5	Explain various types of Positioning systems	(5)

PART B
Answer any 5 questions. Each question carries 7 marks

			Marks
	6	Define LOS and explain factors affecting LOS	(7)
	7	Explain the significance and data collection technique for a) Spot speed b) Speed and Delay c) OD studies	(7)
	8	Explain the need for trip distribution and trip assignment stages in planning process	(7)
	9	Write a short description about the role of GIS in transportation planning	(7)
	10	How ITS and GIS can be integrated in traffic management	(7)
	11	Discuss the applications of ITS using various case studies	(7)
	12	How Automated highway systems and Emergency response system works with integration of GIS and GPS	(7)