Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

## M. E. - SEMESTER - II • EXAMINATION - WINTER 2012

U		le: 1721901 Date: 29-12-201	2
_		me: Traffic Flow Theory & Management	_
		0 am – 01.00 pm Total Marks: 7	0
Instr	uction		
	2. Ma	tempt all questions. ake suitable assumptions wherever necessary. gures to the right indicate full marks.	
Q.1	(a)	Explain briefly the time-space diagram for understanding the movement of single vehicle.	07
	<b>(b)</b>	State to explain which characteristics can be derived from the fundamental traffic flow besides flow, density and speed.	07
Q.2	(a) (b)	Explain the concept of shock waves for the traffic stream conditions.  Describe briefly the basic philosophy of car following modal from Newtonian mechanics.	07 07
	<b>(b)</b>	OR Why there is a need for simulation models and state the classification of it.	07
Q.3	(a) (b)	State the difference between strategic planning and TSM.  Draw the flow diagram to show the general planning procedure for a TSM program.	07 07
		OR	
Q.3	(a) (b)	Explain the key applications of TSM for freeway corridors. Explain the general public reactions to TSM measures.	07 07
Q.4	(a)	For the traffic data of axle load, ridership and travel time state their outputs and potential users for planning.	07
	<b>(b)</b>	State the principles which needs to be implemented for effective neighborhood traffic management program.  OR	07
Q.4	(a)	Explain how you will carry out parking management to regulate traffic flow.	07
Q.4	<b>(b)</b>	State the basic objectives for TSM improvement for an urban arterial corridor in a large metropolitan area.	07
Q.5	(a)	Explain the comprehensive approach which needs to be considered for traffic management strategies.	07
	<b>(b)</b>	State to explain basic technique used as traffic calming.  OR	07
Q.5	(a) (b)	State the potential impacts and its effects due to traffic calming devices. Show the conceptual system framework for maintaining traffic data on continuous basis.	07 07

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