Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – I • EXAMINATION – SUMMER • 2013

Subject code: 711304N **Date: 06-06-2013**

Subject Name: Basics of Transportation Engineering

Time: 10.30 am – 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.**

Q.1 **(a)** Discuss various modes of transportation and their suitability **07**

(b) Develop regression model for trip generation from the following data: **07**

Household income (Rs in thousands)	Trips per day
10	2
20	4
30	4
40	7
50	10
60	11

Q.2 **(a)** Explain Speed-Flow-Density relationship. **07**

(b) Write short note on O-D survey. **07**

OR

(b) What is desire line diagram? How is it prepared? What is its significance? **07**

Q.3 **(a)** Give classification of Urban and rural roads on the basis of accessibility criteria? **07**

(b) Write a note on gravity model for trip distribution? **07**

OR

Q.3 **(a)** What is travel demand forecasting? List methods for travel demand forecasting? Explain any one? **07**

(b) Explain with neat sketch, various types of Parking facilities? **07**

Q.4 **(a)** Compare Mass Transit system and Demand responsive Transit system? **07**

(b) What is meant by coordination in Transportation Engineering? How is coordination achieved? What are its advantages and limitations? **07**

Q.5 **(a)** State measures to prevent accidents. **07**

(b) Write a note on methods of Traffic flow regulation. **07**

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