

GUJARAT TECHNOLOGICAL UNIVERSITY**M. E. - SEMESTER – I • EXAMINATION – WINTER 2012****Subject code: 711302N****Date: 09-01-2013****Subject Name: Traffic Engineering - I****Time: 02.30 pm – 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.

- Q.1** (a) What are the basic components of traffic? Explain Road User characteristic. **07**
 (b) Define :- Speed, Volume, Time mean speed, Space mean speed, delay, Modal speed, Turn over. **07**
- Q.2** (a) Explain Greenshield's Model **07**
 (b) What are the purposes of Traffic volume study? **07**
- OR**
- (b) Enlist the methods of Traffic volume count. Explain any one Mechanical method. **07**
- Q.3** (a) Calculate (i) Modal speed (ii) Median speed **07**
 (iii) Design speed (iv) Time mean speed
 (v) 98th percentile speed (vi) 85th percentile speed

Speed class (Kmph)	No. of vehicles observed
10-14.9	2
15-19.9	15
20-24.9	22
25-29.9	38
30-34.9	62
35-39.9	50
40-44.9	26
45-49.9	18
50-54.9	10
55-59.9	2

- (b) What are the factors affecting spot speeds? **07**
- OR**
- Q.3** (a) Enlist the methods of Origin-Destination survey. Explain any one method. **07**
 (b) What are the purposes of Origin – Destination study. **07**
- Q.4** (a) Write a short note on "Off street parking" **07**
 (b) What are the data require for parking study? **07**
- OR**
- Q.4** (a) What are the remedial measures for preventing accidents? **07**
 (b) Draw the neat sketch of Mandatory signs (Any five) and Warning signs (Any five). **07**
- Q.5** (a) What are the types of Marking? Explain each in detail. **07**
 (b) What are the advantage and dis advantages of Rotary intersection? **07**
- OR**
- Q.5** (a) Explain the relation between the basic traffic flow parameter. **07**
 (b) Write a short note on "Cloverleaf". **07**
