

GUJARAT TECHNOLOGICAL UNIVERSITY**M. E. - SEMESTER – II • EXAMINATION – SUMMER • 2013****Subject code: 1721310N****Date: 05-06-2013****Subject Name: Road Safety and Environment****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) Explain with a flow chart, road safety improvement programme. **07**
(b) Explain comprehensive and third party insurance with respect to vehicles. **07**
- Q.2** (a) Explain the elements of accident information system for accident prone location (Block Spot). **07**
(b) Discuss how highway design can enhance road safety. **07**
- OR**
- (b) List out various methods of statistical analysis of road accident records. **07**
Explain poisson distribution with suitable example.
- Q.3** (a) Explain weighed severity index (WSI) method for determining the accident prone location. **07**
(b) Explain briefly traffic management measures and their influence on accident prevention. **07**
- OR**
- Q.3** (a) Briefly explain the details to be collected in road accident form A-1. **07**
(b) Discuss various measures to increase pedestrian safety. **07**
- Q.4** (a) Draw flow diagram or environmental assessment of highway projects as per IRC: 104:1988. Enlist broad steps involved in EIA for highways. **07**
(b) Discuss the air pollution in view of EIA of highway projects. **07**
- OR**
- Q.4** (a) Explain the measures to prevent soil erosion and land degradation in road development in hilly areas. **07**
(b) Write short on traffic calming measures. **07**
- Q.5** (a) What do mean by noise? What are the detrimental effects of traffic noise? Explain briefly. **07**
(b) What are the various measures for controlling air pollution from road traffic? Explain briefly. **07**
- OR**
- Q.5** (a) With a flow chart, state the steps involved in road safety audit process as per IFC: SP: 88-22010. **07**
(b) What is road safety audit? State the specific aims of RSA. Also state important benefits of road safety audits. **07**
