

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

# **GUJARAT TECHNOLOGICAL UNIVERSITY**

**M. E. - SEMESTER – II • EXAMINATION – SUMMER • 2014**

**Subject code: 1721310**

**Date: 23-06-2014**

**Subject Name: Road Safety and Environment**

**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) Discuss the road safety situation in India. **07**  
(b) Briefly explain condition and collision diagram. **07**
- Q.2** (a) List out various methods of Statistical analysis of Road Accident Records. Explain Poisson Distribution with suitable example. **07**  
(b) Explain comprehensive and third Party Insurance with respect to vehicles. **07**
- OR**
- (b) Explain briefly Multidisciplinary approach for traffic safety. **07**
- Q.3** (a) How weighed Severity Index (WSI) is found for determining the Accident Prone Location? Explain with example. **07**  
(b) Explain briefly traffic management measures and their influence on accident prevention. **07**
- OR**
- Q.3** (a) With flow chart, state the steps involved in Road safety Audit process as per IRC: SP: 88-2010. **07**  
(b) Discuss how safety can be enhanced during construction operations on a highway. **07**
- Q.4** (a) Enlist the detrimental effects of traffic on the environment. Explain vibration and severance effect briefly. **07**  
(b) Draw flow diagram for environmental assessment of highway projects as per IRC: 104:1988. **07**
- OR**
- Q.4** (a) Enlist measures to prevent soil erosion and land degradation in road development in hilly areas. **07**  
(b) What are the various measures for controlling air pollution from road traffic? Explain briefly. **07**
- Q.5** (a) Write short note on control of traffic noise. **07**  
(b) What is Road Safety Audit? State the specific aims of RSA. Also state important benefits of Road safety audits. **07**
- OR**
- Q.5** (a) Write short note on Traffic calming. **07**  
(b) Discuss various measures to increase pedestrian safety. **07**

\*\*\*\*\*