

GUJARAT TECHNOLOGICAL UNIVERSITY**M. E. IIND Semester Examination – June/July- 2011****Subject code: 1721310****Subject Name: Road Safety and Environment****Date: 29/06/2011****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) State road accident scenario of our country with respect to urban and interurban roads. **07**

(b) Explain, with a flow chart, Road Safety Improvement Programme. **07**

Q.2 (a) State standard definition as per IRC: Road Accident, Fatal Accident, Grievously injured person, Grievous Injury Accident, Minor Injury Accident, Pedestrian, Driver. **07**

(b) State Indian Road System (Quantity and Quality) which affects Road Safety. **07**

OR

(b) Compare Accident Problem scale of India and U.S with respect to: population, vehicles, accidents, Accident rates, injured to death ratio and victims. **07**

Q.3 (a) Explain Weighed Severity Index (WSI) method for determining the Accident Prone Location. **07**

(b) Explain the procedure for Installing Safety (crash) Barrier placed along the edge of roadway. **07**

OR

Q.3 (a) Explain the elements of accident Information System for Accident Prone Location (Black Spot). **07**

(b) State low cost counter measures for accidents for inter-urban roads. **07**

Q.4 (a) State the detail of Accident Report form giving details of location, Driver, Vehicle, Accident diagram and description. **07**

(b) Explain comprehensive and third Party Insurance with respect to vehicles. **07**

OR

Q.4 (a) State the reasons for analysis of accident data. Explain Accident rate on basis of explosives data such as traffic volume and length of road section. **07**

(b) What is the technique to identify any Accident Pattern at the study site? **07**

Q.5 (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 format for EIA for highway projects. **07**

OR

Q.5 (a) Discuss the air pollution in view of EIA of highway projects. **07**

(b) Enlist measures to prevent soil erosion and land degradation in road development in hilly areas. **07**
