

GUJARAT TECHNOLOGICAL UNIVERSITY
M.E. – SEMESTER – IV EXAMINATION – OCTOBER 2012

Subject code: 741301**Date: 25-10-2012****Subject Name: Advances in Transportation Engineering.****Time: 2:30 pm – 5:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Each question carry equal marks (14 marks)

- Q.1** (a) Explain in detail “Electronic payments ,toll collection and fare collection. **07**
(b) What is high performance concrete? Describe the characteristics and **07**
benefits of high performance concrete

- Q.2** (a) Explain by drawing sketch public transportation management system by **07**
Satellite.
(b) Enlist the different types of flyash classes. How the flyash can be used in **07**
road construction?

OR

- Q.3** (b) Explain by drawing flow chart National ITS Architecture and standards. **07**
(a) Explain by drawing table conventional approach and advance system **07**
approaches for traffic congestion and traffic accidents.
(b) Describe the properties of recycled concrete used as aggregates. **07**

OR

- Q-3** (a) What is modified bitumen? Explain the polymer bitumen modifier. **07**
(b) Explain use of ITS in traffic management. **07**
- Q.4** (a) What is road pricing ? how road pricing is carried out by ITS. **07**
(b) Describe the characteristics of fiber reinforced concrete. **07**

OR

- Q.4** (a) Distinguish between glass fibre and polymer fibre reinforced concrete. **07**
(b) Explain integrating ITS into transportation planning **07**

- Q. 5** (a) What is adaptive traffic control system? Describe in detail. **07**
(b) What are the objectives of freeway incident management system? **07**

OR

- Q. 5** (a) Explain the difference between pretrip and enroute travel information **07**
system.
(b) What do you understand by microsurfacing? Which equipments are used? **07**
