

GUJARAT TECHNOLOGICAL UNIVERSITY**M. E. - SEMESTER – IV • EXAMINATION – SUMMER • 2013****Subject code: 741301****Date: 14-05-2013****Subject Name: Advances in Transportation Engineering****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 Advanced Traveler Information System in context to mass transportation. List its advantages. **07**
(b) Write short note on Gyroscopic Compactor. **07**
- Q.2** (a) What do you understand by Smart Vehicle? Explain in brief. **07**
(b) What is adaptive traffic control system? Write its advantages and disadvantages. **07**
- OR**
- (b) How the Fly ash is useful in road construction? What are the types of fly ash and state its property. **07**
- Q.3** (a) Write note on Role of ITS in safety. **07**
(b) Write note on Modified Bitumen Emulsion. **07**
- OR**
- Q.3** (a) Write note on ITS and road-pricing **07**
(b) Write note on Fiber Reinforced Concrete. **07**
- Q.4** (a) How do you related the sustainable mobility with the ITS? **07**
(b) Where do you suggest the use of stone matrix asphalt? Briefly explain its mix design. **07**
- OR**
- Q.4** (a) What do you understand by Collision Warning System? Explain in brief. **07**
(b) Write note on Anti stripping additives. **07**
- Q.5** (a) What is incident management? How it improve the traffic control system? **07**
(b) Explain PMB, EMB, NRMB and CRMB **07**
- OR**
- Q.5** (a) What do understand by high performance concrete? Explain. **07**
(b) How the ITS is useful in regional strategic planning? Briefly explain. **07**
