Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME SEMESTER II EXAMINATION – SUMMER 2017

Subject Code: 2721313 **Date: 29/05/2017**

Subject Name: Advances in Transportation Engineering

Time: 02:30 PM to 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)**	What do you understand by Adaptive Traffic Control System? Explain their advantages and disadvantages.	**07**
	(b)	What are the various types of collision warning system? Explain each briefly	**07**
Q.2	**(a)**	Write a short note on Driverless vehicles	**07**
	(b)	What is the role of Intelligent Transport System in road safety?	**07**
		OR	
	(b)	What is traffic actuated signals? Explain its functioning	**07**
Q.3	**(a)**	What is the role of ITS in transportation network operations?	**07**
	(b)	Write a short note on "Applications of ITS in road pricing"	**07**
		OR	
Q.3	**(a)**	Explain – Vehicle positioning system	**07**
	(b)	What are Anti Stripping additives? Explain its function and specifications.	**07**
Q.4	**(a)**	Write test procedure for Viscosity test and softening test for bitumen with sketch.	**07**
	(b)	What is Superpave? Explain steps for mix design of superpave.	**07**
		OR	
Q.4	**(a)**	Write a short note on "Gyratory Compactor"	**07**
	(b)	What are the advantages and disadvantages of Stone Mastic Asphalt?	**07**
Q.5	**(a)**	What is porous asphalt? Explain its merits and demerits.	**07**
	(b)	What are the types of Admixtures? Briefly explain their functions in High Performance Concrete.	**07**
		OR	
Q.5	**(a)**	What is CRMB? What are its types? Write advantages and applications of CRMB.	**07**
	(b)	What are the advantages of fly ash as construction material in highway?	**07**

****