GUJARAT TECHNOLOGICAL UNIVERSITY
BE – SEMESTER- VII EXAMINATION-SUMMER 2023

Subject Code: 3170214   **Date: 21/06/2023**
Subject Name: Vehicle and Road Safety
Time: 10:30 AM TO 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.**
4. **Simple and non-programmable scientific calculators are allowed.**

			Marks
Q.1	**(a)**	Explain Height mismatches in bumper design.	**03**
	(b)	Plan to aware people about rules and regulations of traffic.	**04**
	(c)	Which is advance technology introduced in frontal air bags? Explain	**07**
Q.2	**(a)**	Define Exterior safety and Interior safety	**03**
	(b)	What is Pedestrian safety? Explain in brief.	**04**
	(c)	Explain types of seat belts in brief.	**07**
		OR	
	(c)	Discuss on crashes related to pedestrian and bicyclists.	**07**
Q.3	**(a)**	Is electric steering is safe? How?	**03**
	(b)	Explain advance technology in seat belts.	**04**
	(c)	What are the advantages & disadvantages of electric power system?	**07**
		OR	
Q.3	**(a)**	Give some examples of the presentations on the road safety educations.	**03**
	(b)	Give the reasons why car doors aren't locking properly?	**04**
	(c)	How Anti-lock brake system work? Explain with diagram.	**07**
Q.4	**(a)**	How object detection system works?	**03**
	(b)	What is the Tiltable steering wheel?	**04**
	(c)	Compare Frontal object detection and Rear vehicle object detection system.	**07**
		OR	
Q.4	**(a)**	Give the public responsibilities for the accident preventions.	**03**
	(b)	Explain Central door locking system.	**04**
	(c)	Explain crash test of vehicle with their importance	**07**
Q.5	**(a)**	Explain pre-school road safety education in details.	**03**
	(b)	How can we elaborate the accident Characteristics?	**04**
	(c)	Explain types of efforts done by government on road safety events.	**07**
		OR	
Q.5	**(a)**	Discuss on traffic rules.	**03**
	(b)	Define: (1) driving safety (2) perceptibility safety.	**04**
	(c)	Explain Electronic Power System with diagram.	**07**

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