GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VIII EXAMINATION – SUMMER 2016

Subject Code : 181907   **Date: 16/05/2016**
Subject Name : Automobile Body Engineering
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.**

Q.1	**(a)**	Explain body optimization techniques and aerodynamics aids for optimization of drag.	**07**
	(b)	Explain wind tunnel testing of scale model of a Car.	**07**
Q.2	**(a)**	Explain in detail Driver's Visibility. Explain methods of improving visibility.	**07**
	(b)	Explain the various Sources of body noises, testing and methods of elimination of body noise in details.	**07**

OR

	(b)	Write a short note on Water leakage test.	**07**
Q.3	**(a)**	Explain briefly symmetric and asymmetric vertical loads in car.	**07**
	(b)	Explain various types of sections used for frame construction for buses.	**07**

OR

Q.3	**(a)**	Explain the dimensions of driver's seat in relation to controls & driver's cabin design with neat sketch.	**07**
	(b)	List Different types of bus bodies and explain split level, double decker and articulated bus bodies with suitable sketch.	**07**
Q.4	**(a)**	Explain in detail the Spare wheel carrier construction and design for different types of vehicle and weight distribution criteria in relation to Spare wheel location.	**07**
	(b)	What is vehicle safety ? Explain requirements and provisions for vehicle safety.	**07**

OR

Q.4	**(a)**	Explain briefly: "Heating and Ventilation systems used in auto vehicles"	**07**
	(b)	Explain crash test to be performed for auto vehicles.	**07**
Q.5	**(a)**	Explain the concept of idealized load carrying structure, structural surface method and shear panel method.	**07**
	(b)	What is dash board ? Explain different instruments included in dash board.	**07**

OR

Q.5	**(a)**	Explain various insulating materials with vibrational characteristics.	**07**
	(b)	Explain step wise various painting processes.	**07**

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