Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME – SEMESTER II (NEW) – • EXAMINATION – SUMMER 2016

Subject Code: 2721104 **Date: 31/05/2016**

Subject Name: Automotive Chassis & 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 the Rules and regulations for vehicle body design.	**07**
	(b)	Explain the different bodies used in Automobiles.	**07**
Q.2	**(a)**	Explain in brief the importance of Recent safety measures in Vehicle design.	**07**
	(b)	Explain the application of wind tunnel technology in Automobiles.	**07**
		OR	
	(b)	Explain the effects of forces and moments on vehicle body.	**07**
Q.3	**(a)**	Explain about the constructional details of Dashboard and bonnet.	**07**
	(b)	Explain about various loads acting on the chassis frame.	**07**
		OR	
Q.3	**(a)**	Explain about Idealized structure of Vehicle body.	**07**
	(b)	Explain the tests with scale models.	**07**
Q.4	**(a)**	Explain the various body optimization techniques for minimize drag.	**07**
	(b)	Explain the stress analysis in integral bus body.	**07**
		OR	
Q.4	**(a)**	Explain the different methods of improving driver's visibility.	**07**
	(b)	Discuss about flow visualization techniques.	**07**
Q.5	**(a)**	Explain about the vehicle body materials.	**07**
	(b)	Explain the classification of coach work.	**07**
		OR	
Q.5	**(a)**	Give the difference between symmetric and asymmetric vertical loads.	**07**
	(b)	Explain the constructional details of roof and under floor of vehicle.	**07**

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