

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**ME - SEMESTER-II EXAMINATION – SUMMER 2015**

**Subject Code: 2721104****Date: 01/06/2015****Subject Name: Automotive chassis & Body Engineering****Time: 02:30 PM to 05:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary and mention it clearly in your solution.

- Q.1** (a) Discuss about the Vehicle Drag. **07**  
(b) Explain the followings: **07**  
(1) Under floor  
(2) Dash Board
- Q.2** (a) Discuss about the methods of improving driver's visibility. **07**  
(b) Discuss about stress analysis of bus body structure under bending and torsion. **07**  
**OR**  
(b) Discuss about types of car bodies. **07**
- Q.3** (a) Discuss about Shear panel method. **07**  
(b) Describe principle of wind tunnel technology. **07**  
**OR**
- Q.3** (a) Describe Idealized structure design of vehicle body. **07**  
(b) Discuss the Testing of Vehicle body. **07**
- Q.4** (a) Discuss about tests with scale models. **07**  
(b) Explain about classification of coach work. **07**  
**OR**
- Q.4** (a) Explain about rules and regulations for body. **07**  
(b) What is vehicle safety? Explain requirements and provisions for vehicle safety. **07**
- Q.5** (a) Explain different aerodynamic forces and moments with their effects on the vehicle. **07**  
(b) Give the difference between symmetric and asymmetric vertical loads. **07**  
**OR**
- Q.5** (a) Discuss about vehicle body materials. **07**  
(b) Discuss about flow visualization techniques. **07**

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