

**GUJARAT TECHNOLOGICAL UNIVERSITY****M. E. - SEMESTER – II • EXAMINATION – SUMMER • 2014****Subject code: 1721104****Date: 20-06-2014****Subject Name: Automotive Chassis and Body Engineering****Time: 02:30 pm - 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) Discuss about closed loop type of wind tunnel. **07**  
(b) Explain the following terms: **07**  
(i) Under floor  
(ii) Bonnet
- Q.2** (a) Discuss about classification of coach work. **07**  
(b) Discuss about various body optimization techniques for minimization of drag. **07**  
**OR**  
(b) Explain the concept of shear panel method. **07**
- Q.3** (a) Explain methods for improving driver's visibility with neat sketch. **07**  
(b) Explain design of Chassis frame. **07**  
**OR**
- Q.3** (a) Discuss about various types of forces and moments act on Automobile body. **07**  
(b) Discuss about stress analysis of bus body structure under bending and torsion. **07**
- Q.4** (a) Write short note on testing of body. **07**  
(b) Explain in brief flow visualization techniques. **07**  
**OR**
- Q.4** (a) Explain about Dashboard of vehicle. **07**  
(b) Discuss about vehicle body materials. **07**
- Q.5** (a) Explain distribution of load on vehicle structure. **07**  
(b) Discuss about constructional details of roof. **07**  
**OR**
- Q.5** (a) Discuss about constructional features of Automobile body. **07**  
(b) Write short note on vehicle drag. **07**

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