

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER-VIII • EXAMINATION – SUMMER 2013**

**Subject Code: 181907****Date: 09/05/2013****Subject Name: Automobile Body Engineering (Department Elective II)****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) What is “Streamline Design” for vehicle body? Give the importance of smooth curves and slopping surfaces. **07**
- (b) Explain with neat sketch or layout of articulated bus. **07**
- Q.2** (a) What is aerodynamics forces and moment? Explain the different types of forces and moment produce on vehicle. **07**
- (b) What is wind tunnel? Write different types of wind tunnels. Also gives advantages of it. **07**
- OR**
- (b) Describe the drag, side force and lift forces in details. **07**
- Q.3** (a) Discuss about the conventional and integral type of bus body construction. **07**
- (b) What are the requirements of body for various types of vehicles? **07**
- OR**
- Q.3** (a) Explain about the visibility consideration in the body design. **07**
- (b) What is the characteristic of flat platform body? **07**
- Q.4** (a) Explain in brief different types of bus body style. **07**
- (b) Why toughened glass is used in Automobile? Explain difference between toughened glass and laminated glass. **07**
- OR**
- Q.4** (a) What are the different entrance and exit locations in the bus? **07**
- Q.4** (b) What are the different types of painting methods and explain the modern procedure of spray painting? **07**
- Q.5** (a) What are the functions of painting in Automobile body and What are the main constituents of paints? **07**
- (b) Discuss the materials used for car body construction, truck body and passenger bus body. **07**
- OR**
- Q.5** (a) Discuss about interior trim, exterior trim and upholstery of automobile body. **07**
- (b) Explain about any four vehicle body repair tools. **07**

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