

GUJARAT TECHNOLOGICAL UNIVERSITY**BE SEM-VIII Examination May 2012****Subject code: 181907****Subject Name: Automobile body engineering (Department elective-II)****Date: 08/05/2012****Time: 10.30 am – 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 briefly GRP and FRP used in automobile body. **07**
(b) Give the difference between toughened glass, sheet glass and laminated glass. **07**

- Q.2** (a) Explain different materials used for automobile body. **07**
(b) What is dash board? Explain different instruments included in dash board. **07**

OR

- (b) Explain crash test to be performed for auto vehicles. **07**

- Q.3** (a) Give detailed classification of vehicle bodies. **07**
(b) What is vehicle safety? Explain requirements and provisions for vehicle safety. **07**

OR

- Q.3** (a) Explain various seating dimension parameters with sketch. **07**
(b) Write a brief note on 'heating and ventilation systems' of the vehicle. **07**

- Q.4** (a) What is vehicle drag? Explain the types of drags in a vehicle. **07**
(b) Explain wind tunnel testing of scale model. **07**

OR

- Q.4** (a) Explain body optimization techniques and aerodynamics aids for optimization of drag. **07**
(b) Explain different aerodynamic forces and moments with their effects on the vehicle. **07**

- Q.5** (a) Explain roll over test to be performed for auto vehicles. **07**
(b) Explain methods for paint and painting process for automobile body. **07**

OR

- Q.5** (a) Draw the bus body layout and give the function of each component of bus body. **07**
(b) What is driver's visibility? Explain methods for improving visibility of drivers in a vehicle. **07**
