

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-VIII • EXAMINATION – SUMMER 2014

Subject Code: 181907

Date: 27-05-2014

Subject Name: Automobile 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 vehicle drag and its types. Discuss effect of body profiling on bus. **07**
(b) Draw the bus body layout and give the function of each component of bus body. **07**

- Q.2** (a) Explain various seat dimension parameter with sketch. **07**
(b) Explain crush test performed while testing of vehicle. **07**

OR

- (b) Explain method of improving visibility in car and space in cars. **07**

- Q.3** (a) What is difference between frame construction and double skin construction explains it in detail. **07**
(b) Explain various insulating material with its characteristics. **07**

OR

- Q.3** (a) Explain various adhesive and sealant used in automobile. **07**
(b) Explain various types of sections used for frame construction for buses with neat sketch. **07**

- Q.4** (a) Explain SLED test. **07**
(b) Discuss the need of aerodynamic structure in the auto vehicle and also explain different types of forces and moments acting in vehicle. **07**

OR

- Q.4** (a) Explain methods for paint and painting process for automobile body. **07**
(b) Explain body characteristics of vehicle. **07**

- Q.5** (a) List Different types of bus bodies and explain splitlevel, double decker and articulated bus bodies with suitable sketch. **07**
(b) Discuss sources of noises testing and method of elimination. **07**

OR

- Q.5** (a) Explain global load cases. **07**
(b) Explain shear panel method. **07**
