

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- VIth SEMESTER-EXAMINATION – MAY- 2012

Subject code: 160205

Date: 19/05/2012

Subject Name: Automobile Chassis and body engineering

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 with figure the vehicle drag. 07
(b) Describe Aerodynamic aids for optimization of drag. 07

- Q.2 (a) Explain safety requirements for car body. 07
(b) Write the difference between frame, chassis and body of a vehicle. 07

OR

- (b) Draw and explain typical car body construction. 07

- Q.3 (a) Classify types of bus body. Draw and explain bus body layout. 07
(b) Draw the diagram for coach work and coach construction and explain it. 07

OR

- Q.3 (a) Describe with figure the light commercial vehicle body. 07
(b) Explain with sketch the tipper body design. 07

- Q.4 (a) Explain use of different metal sheets as vehicle body material. 07
(b) Describe the uses of plastics, FRP and GRP in bus body 07

OR

- Q.4 (a) Explain symmetric and asymmetric vertical loads in case of car loading. 07
(b) Describe idealized structure. 07

- Q.5 (a) Explain with a neat sketch the dash board and instrument panel of vehicle. 07
(b) Describe the selection of paint and painting process of vehicle. 07

OR

- Q.5 (a) Write the sources of body noises and explain the methods of its elimination. 07
(b) Explain selection of air conditioning equipment and its mounting in vehicle. 07
