Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

## B. E. - SEMESTER - VI • EXAMINATION - WINTER 2012

Date: 07/01/2013

Subject code: 160205

•		Automobile Chassis and Body Engineering - 05.00 pm Total Ma	rks: 70
Instruction 1. At 2. Ma	nS: tempt ake su	any five questions.  itable assumptions wherever necessary.  to the right indicate full marks.	IKS. 70
Q.1		Explain Asymmetric Vertical Loads acting on Vehicle. What is Drag? Explain various body optimization techniques used to reduce Drag.	07 07
Q.2	(a)	Explain properties and use of following materials:  1. Composite Materials  2. FRP	07
	(b)	Describe with neat sketch, the dimensions of Driver's seat in relation to various controls. Also explain Driver's seat arrangement for various vehicles.  OR	07
	<b>(b)</b>	Explain various types of tests carried out in wind tunnel.	07
Q.3	(a) (b)	blind spot in sedan car.	07 07
Q.3	(a) (b)	OR State the sources of body noise. Also describe testing and elimination methods for body noise. State and explain various types of body optimization techniques to reduce aerodynamic lift.	07 07
Q.4		Elucidate the concept of an idealized load carrying structure.  Write a short note on safety requirements for vehicle body.	07 07
Q.4	(a) (b)	OR  Describe the construction of door and dash board.  Write short note on types of body for commercial vehicles.	07 07
Q.5	(a) (b)	Explain in detail: Paint procedure carried out on vehicle. Briefly explain various moments arise on vehicle due to aerodynamic forces.	07 07
Q.5	(a)	OR Explain difference between toughened glass, sheet glass	07
-	<b>(b)</b>	and laminated glass.  Describe car body construction.	07

\*\*\*\*\*