Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

BE - SEMESTER-V • EXAMINATION – SUMMER 2013

Subject Code: 150202		Code: 150202 Date: 16-05-2	Date: 16-05-2013	
-	: 10	Name: Automobile Systems 0.30 am - 01.00 pm Total Marks:	: 70	
instru	1. 2.	Attempt all questions.  Make suitable assumptions wherever necessary.  Figures to the right indicate full marks.		
Q.1	(a)	· · · · · · · · · · · · · · · · · · ·	07	
	(b)	engine rear wheel drive.  Define the following terms:  (i) Air resistance (ii) Gradiability (iii) Traction and Tractive effort.  (iv) Wheel skidding.	07	
Q.2	(a)	Explain with neat sketch the rear axle shaft supporting of 1. semi floating 2. full floating	07	
	(b)		07	
		OR		
	(b)	Describe the construction and working of a multi plate clutch with neat diagram and application.	07	
Q.3	(a)	Explain synchromesh type of gear box.	07	
	(b)	and construction with diagram.	07	
0.3	(a)	OR  Evaluin working of four forward and one reverse constant much	07	
Q.3	(a)	Explain working of four forward and one reverse constant mesh gearbox with diagram.	U/	
	(b)		07	
Q.4	(a)	Classify stearing systems. Explain with a neat sketch any one of the steering system.	07	
	(b)		07	
	OR			
<b>Q.4</b>	(a)	•	07	
	(b)	Explain the following terms with neat sketch:  1. Caster 2. Camber 3. Slip angle 4. Toe in & Toe out	07	
Q.5	(a)	• • • • • • • • • • • • • • • • • • • •	07	
	<b>(b)</b>		07	
Q.5	(a)		07	
	(b)	tyres.  Explain with a neat sketch the hydraulic shock absorber	07	

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