Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V • EXAMINATION – WINTER 2013

Su Tii	bject me: 1 tructio 1. 2.	Code: 150202 Name: Automobile Systems 0.30 am - 01.00 pm Total Marks: 70 ons: Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) (b)	Explain with neat sketch the vehicle layout for automobile of front engine front wheel drive with its advantages and applications. Explain types of chassis with suitable sketch.	07 07
Q.2	(a) (b)	Classify tyres and compare between redial ply and bias ply tyres.	07
		OR	
	(b)	Explain under steer and over steer.	07
Q.3	(a) (b)	Explain single plate clutch with neat sketch. Describe with neat sketch the construction and working of a 4-forward and 1-reverse type constant mesh gear box	07 07
Q.3	(a) (b)	OR Explain multi plate clutch with neat sketch. Explain epicyclic gear box.	07 07
Q.4	(a)	Explain with neat sketch working and construction of master cylinder for	07
	(b)	hydraulic braking system. Explain with neat sketch the automatic transmission. OR	07
Q.4	(a) (b)		07 07
Q.5	(a)	Explain working of propeller shaft with suitable sketch and function of each component of it.	07
	(b)	Short note on power steering.	07
Q.5	(a)	1. Traction and Tractive effort 2. Air resistance. 3. Wheel skidding	07
	(b)	Discuss Hotchkiss drive with neat sketch.	07
