Seat No.: Enrolment No

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII • EXAMINATION - SUMMER 2014

Subject Code: 171902 Subject Name: Automobile Engineering Time:02:30pm to 05:00 pm Instructions: Total Marks:			-2014	
	1 2	 Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. 		
Q.1	(a)	Explain advantages and disadvantages of a passenger car with the engine	07	
	(b)	mounted at the front and rear engine mounting with neat sketch. Describe the construction and working of wind screen wiper, Speedometer Odometer and Fuel Gauge	07	
Q.2	(a) (b)	Explain the working of multi plate clutch with neat sketch. Explain construction and working of differential unit with neat sketch OR	07 07	
	(b)	Write short note on non-slip type differential	07	
Q.3	(a) ·	Define (1) castor (2) camber (3) toe in and toe out State their effect on steering geometry with neat sketch.	07	
	(b)	Describe the rack and pinion type steering gear box with neat sketch.	07	
Q.3	(a) (b)	OR Designate the tyre with example. Differentiate between tube and tubeless tyre What are the difference between Hotchkiss and torque tube drive describe with the help a neat sketch	07 07	
Q.4	(a) (b)	Explain the working of constant mesh gear box with diagram. Explain the need of suspension system and state its objective. OR	07 07	
Q.4	(a)	Give the classification of automobile brake. Explain with neat sketch the working of master cylinder used in hydraulic brake	07	
	(b)	State the function of battery and explain construction of automobile battery with sketch.	07	
Q.5	(a)	What are the different types of rear end suspension? How does a rigid axle front end suspension differ from an independent front end suspension?	07	
	(b)	Explain the typical lighting circuit diagram of a car	07	
Q.5	(a)	OR Enlist the various types of tools and equipment required in service station.	07	
	(b)	Write short note on Euro norms	07	
