Seat No.:	Enrolment No

Subject Code: 171902

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII • EXAMINATION - WINTER • 2014

Date: 02-12-2014

	-	Name: Automobile Engineering 0:30 am - 01:00 pm)
Ins	truction 1. 2. 3.		
Q.1	(a)	Draw the layout of an automobile and describe the primary purpose of each main parts of an automobile.	07
	(b)	Name different resistances encountered by an automobile. Explain any one of them.	07
Q.2	(a) (b)	Explain construction and working of fluid coupling with the help of neat sketch. What is necessity of gear box? Explain the working of constant mesh gear box with neat sketch.	07 07
	(b)	OR Draw the schematic of a box section type frame of an automobile and discuss design features are to be considered in making of the frame.	07
Q.3	(a) (b)	Explain the construction and working of telescopic shock absorber. Describe the importance of caster and camber in an automobile with neat sketch. OR	07 07
Q.3	(a)	Explain principle of braking. Explain construction and working of disc brake system with neat sketch.	07
	(b)	Describe the safety features available in modern car.	07
Q.4	(a)	What are the functions of wheel? Explain construction and working of pressed steel disc.	07
	(b)	Give the classification of tyre. Differentiate between tube tyre and tubeless tyre. OR	07
Q.4	(a)	Explain briefly following 1) Driving license 2) Insurance against third party	07
	(b)	Why servicing of an automobile is necessary? Explain various types of servicing required to maintain a vehicle.	07
Q.5	(a)	What is the need of using a differential assembly in an automobile? Discuss the working of the differential with neat sketch.	07
	(b)	What is the function of the propeller shaft? Explain the working of propellant shaft with neat sketch.	07
Q.5	(a) (b)	OR Discuss the lights used in modern vehicle for various purposes. Describe the factors should be considered to purchase a new car for a family.	07 07
