

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VIII (NEW) - EXAMINATION – SUMMER 2018

Subject Code: 2181915

Date: 30/04/2018

Subject Name: Automobile Engineering(Department Elective II)

Time: 10:30 AM to 01:00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		MARKS
Q.1	(a) What is free pedal play and why it is required?	03
	(b) Give the comparison between semi centrifugal and centrifugal clutch.	04
	(c) Explain with figure construction and working of multi plate clutch.	07
Q.2	(a) What are functions of suspension system?	03
	(b) Explain briefly 1. Castor angle and 2. King pin inclination.	04
	(c) Explain Wishbone type suspension system.	07
	OR	
	(c) Write a short note on vehicle aerodynamics.	07
Q.3	(a) Mention various electrical and electronics components used in vehicle with its symbols.	03
	(b) What do you mean by understeer and oversteer?	04
	(c) Explain different types of vehicle bodies with neat sketch with its constructional features.	07
	OR	
Q.3	(a) Draw the vehicle layouts of 1. Front engine front wheel drive and 2. Four wheel drive in Automobile.	03
	(b) Discuss different types of resistances acting on vehicles.	04
	(c) Write a short note power steering.	07
Q.4	(a) Enlist different types of materials used in body construction with an application of each.	03
	(b) Explain the necessity of transmission in a vehicle	04
	(c) Explain briefly 'SSS method'	07
	OR	
Q.4	(a) What is the function of brake? Give its classification.	03
	(b) Give the comparison between hydraulic brake and mechanical brake	04
	(c) Write a short note on differential used in the vehicles.	07
Q.5	(a) Explain double declutching in gearbox.	03
	(b) Explain functions, types, and different components of chassis frame. Chassis frame.	04
	(c) Explain working and construction of sliding mesh gear box.	07
	OR	
Q.5	(a) What is the function of propeller shaft? Also draw its figure.	03
	(b) Compare Hotchkiss drive with Torque tube drive.	04
	(c) Write a short note on modern vehicles.	07
