

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VI(NEW) – EXAMINATION – SUMMER 2019****Subject Code:2160208****Date:14/05/2019****Subject Name:Automotive computer controlled Systems****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) Explain in detail electronic ignition system.	03
	(b) Explain Oscilloscope.	04
	(c) Explain vehicle air conditioning system with neat sketch	07
Q.2	(a) Explain stability control system	03
	(b) Explain AND and OR gate with automotive application.	04
	(c) Explain ABS system.	07
	OR	
	(c) Explain ABS actuators.	07
Q.3	(a) Give requirements to function correct for the computer-controlled system.	03
	(b) Explain Digital to Analogue conversation.	04
	(c) Explain Liquid Crystal displays.	07
	OR	
Q.3	(a) Explain Piezoelectric sensors.	03
	(b) Justify the statement “The Switching-off point is not affected by speed in electronic ignition system”	04
	(c) Explain On Board Diagnostic II (OBD II) tools.	07
Q.4	(a) List out Diagnostic tools that connect to ECM.	03
	(b) Explain coded ignition system.	04
	(c) Explain Exhaust Gas Recirculation system with neat sketch.	07
	OR	
Q.4	(a) Explain Stepper motor operated Air valve.	03
	(b) Write short note on Actuators.	04
	(c) Explain supplementary restraint system.	07
Q.5	(a) Explain circuit testing.	03
	(b) Explain Flow sensors.	04
	(c) What is Duty cycle? Explain with proper example.	07
	OR	
Q.5	(a) Explain Digital Multi meter.	03
	(b) Explain Knock sensor.	04
	(c) Write various precautions while working with computer-controlled systems.	07
