GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VI (NEW) EXAMINATION – WINTER 2018

Subject Code:2160208   **Date:20/11/2018**
Subject Name:Automotive Computer Controlled Systems
Time: 02:30 PM TO 05:00 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)**	List various Logic gates along with symbols and truth tables.	**03**
	(b)	Explain types of computer memories.	**04**
	(c)	Explain Evaporative emission control system with Schematic diagram.	**07**
Q.2	**(a)**	Describe Variable Capacitance type sensor.	**03**
	(b)	Explain Digital Multimeter in brief.	**04**
	(c)	Write short note on Exhaust Gas Recirculation (EGR) system with neat sketch.	**07**
		OR	
	(c)	Explain Traction Control System with diagram.	**07**
Q.3	**(a)**	Explain Stepper motor operated Valve.	**03**
	(b)	State various precautions while working with computer controlled systems.	**04**
	(c)	Explain Digital to Analog and Analog to Digital Conversion.	**07**
		OR	
Q.3	**(a)**	Describe Liquid Crystal Displays.	**03**
	(b)	Explain piezoelectric sensor.	**04**
	(c)	Describe importance of sensors. Explain Oxygen sensor.	**07**
Q.4	**(a)**	Discuss Manifold Absolute Pressure sensor.	**03**
	(b)	Explain Coded ignition Key.	**04**
	(c)	Describe Stability control system with line diagram.	**07**
		OR	
Q.4	**(a)**	Explain Oscilloscope in brief.	**03**
	(b)	Write short note on Injector tests.	**04**
	(c)	What is Diagnostics troubles codes? Explain with suitable examples. Discuss OBD-II.	**07**
Q.5	**(a)**	Discuss Supplementary Restraint System.	**03**
	(b)	Explain electromagnetic sensors with their application in automobile.	**04**
	(c)	Explain Computer controlled Diesel engine system.	**07**
		OR	
Q.5	**(a)**	Draw schematic diagram of electronic ignition system.	**03**
	(b)	What is duty cycle? Explain with proper example.	**04**
	(c)	With neat sketch explain vehicle air conditioning system.	**07**

****