GUJARAT TECHNOLOGICAL UNIVERSITY
BE- SEMESTER–VI (NEW) EXAMINATION – WINTER 2020

Subject Code:2160208   **Date:22/01/2021**

Subject Name:Automotive computer controlled Systems

Time:02:00 PM TO 04:00 PM   **Total Marks: 56**

Instructions:
1. Attempt any FOUR questions out of EIGHT questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1	**(a)**	Discuss the brief about fundamental parts of computer	**03**
	(b)	Explain Computer data and list the requirements for data transfer.	**04**
	(c)	Justify the statement "The Switching-off point is not affected by speed in electronic ignition system".	**07**
Q.2	**(a)**	What is duty cycle? Explain with example	**03**
	(b)	How fuel pressure is regulated in MPFI system? Explain with schematic diagram.	**04**
	(c)	Explain Evaporative emission control system	**07**
Q.3	**(a)**	Describe Liquid Crystal Displays.	**03**
	(b)	Which gates are used in vehicle Door? Explain in brief.	**04**
	(c)	List the logical gate with its figure and truth table.	**07**
Q.4	**(a)**	Explain optical sensor.	**03**
	(b)	Explain Engine coolant temperature sensor.	**04**
	(c)	Explain the basic principal of variable reluctance sensor.	**07**
Q.5	**(a)**	Write short note on Injector tests.	**03**
	(b)	Explain stepper motor operated air valve	**04**
	(c)	With neat sketch explain ABS actuators	**07**
Q.6	**(a)**	State the practical importance of sensors.	**03**
	(b)	Explain Digital Multi-meter.	**04**
	(c)	Explain on board diagnostic – II (OBD-II) tools.	**07**
Q.7	**(a)**	Explain LED	**03**
	(b)	List precaution when working with computer control system.	**04**
	(c)	Explain coded ignition key system.	**07**
Q.8	**(a)**	4 Give difference between Sensor, Transducer and Actuator.	**03**
	(b)	Explain JK flip-flop.	**04**
	(c)	Explain supplementary restraint system (SRS).	**07**

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