Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE SEMESTER– 8th EXAMINATION – SUMMER 2015

Subject Code: 180202 **Date:11/05/2015**

Subject Name: Automotive Electrical & Electronics

Time:10.30AM-01.00PM **Total Marks: 70**

Instructions:

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

Q.1	**(a)**	Explain Battery ratings & Battery efficiency.	**07**
	(b)	(i)Explain Positive and Negative earthing system of automobile. (ii) Draw a simple circuit diagram of the coil ignition system.	**07**
Q.2	**(a)**	Explain Principles, Construction & working of lead acid battery.	**07**
	(b)	Define (i) Engine Breakaway Torque (ii) Engine resisting Torque (iii) Motor Locked Torque & Explain the construction of commutator	**07**
		OR	
	(b)	Why automobile required Charging system? Explain DC Dynamo with neat diagram.	**07**
Q.3	**(a)**	Give the names of different Types of drive mechanisms. Explain Folo-thru drive with neat sketch.	**07**
	(b)	Explain Ballast Resistance & spark advance mechanism.	**07**
		OR	
Q.3	**(a)**	Explain voltage and current regulator with neat sketch.	**07**
	(b)	Explain Door operated interior lights and Parking lights with circuit diagram.	**07**
Q.4	**(a)**	What is third-brush regulation? Give its limitations.	**07**
	(b)	Explain any one type of coolant temperature gauge and speedometer with circuit diagram.	**07**
		OR	
Q.4	**(a)**	Explain construction details of a Spark Plug with the help of neat sketch. Differentiate Hot and Cold Spark Plug.	**07**
	(b)	Explain Fog lamps and Ignition Warning Lights with circuit diagram.	**07**
Q.5	**(a)**	Write a short note on (i) Electronic horn (ii) Air Conditioning system of automobile.	**07**
	(b)	Explain Electronic injection system regulation for CRDI & MPFI engine.	**07**
		OR	
Q.5	**(a)**	Write a short note on (i) Windscreen wipers (ii) Central locking system	**07**
	(b)	Explain ignition coil tester & distributer tester.	**07**

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