Seat No.:	Enrollment No.

Subject Code: 180202

GUJARAT TECHNOLOGICAL UNIVERSITY

BE SEMESTER VIII- • EXAMINATION – WINTER 2014

Date: 04/12/2014

Subject Name: Automotive Electricals and Electronics Time: 02.30 pm - 05.00 pm Instructions: 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks.		: 70	
Q.1	(a) (b)	Explain principle and working of Lead Acid Battery with neat sketch. State the purpose of (1) Fuses (2) Maxi-fuse (3) Circuit Breaker and Explain them.	07 07
Q.2	(a) (b)	Describe the procedure of current draw for a Starter Motor. Draw neat circuit diagram of Bendix Starter drive, state application in brief. OR	07 07
	(b)	Explain with neat sketch Battery Ignition System with its advantages.	07
Q.3	(a)	What is an alternator? Compare it with generator. Which will you prefer? Give reasons in support of your answer.	07
	(b)	Explain and Draw circuit diagram of Door Operated Interior Lights. OR	07
Q.3	(a) (b)	Describe Dynamo with the help of a neat diagram. Write Short Note on Fog Lamps and Side Indicator Lamp with circuit diagram.	07 07
Q.4	(a)	Discuss in detail the following: 1) Fuel Gauges 2) Oil Temperature Gauge.	07
	(b)	Explain with schematic diagram Anti-Lock Braking System of modern vehicle. OR	07
Q.4	(a) (b)	Explain in detail Electronic Power Steering of Today's Automobile. Write Short note on following: 1) Wind Screen Wipers 2) Power Windows	07 07
Q.5	(a)	Explain with the help of neat sketch the construction details of a Spark Plug. Differentiate Hot and Cold Spark Plug.	07
	(b)	Write short note on Battery Tester and Ignition Coil Tester. OR	07
Q.5	(a)	Explain following terms used in Ignition System 1) Spark Advance Mechanism 2) Cam Angle	07
	(b)	Describe Cam Angle RPM tester and Timing Devices used as Testing Devices in Vehicles.	07
