

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-VIII • EXAMINATION – SUMMER 2014

Subject Code: 180202**Date: 05-06-2014****Subject Name: Automotive Electrical and Electronics****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.

- Q.1** (a) (I) Explain Storage, Distribution systems & Generation of electric energy. **04**
 (II) Explain circuit breakers. **03**
 (b) Explain Designations & Rating of Batteries **07**
- Q.2** (a) (I) Explain the construction of commutator. **03**
 (II) Explain Cutout Relay **04**
 (b) Explain Principles, Construction & working of lead acid battery. **07**
- OR**
- (b) Explain different types of battery charging technic. **07**
- Q.3** (a) Explain different types of Battery tests. **07**
 (b) Give the name of various drive device used for Cranking motor drive mechanism. Explain Folo-thru drive. **07**
- OR**
- Q.3** (a) (I) Explain Cranking motor principal. **03**
 (II) Define the various torque terms as applied on Cranking motor. **04**
 (b) Write a short note on Distributor. **07**
- Q.4** (a) Explain Ballast Resistance & Cam Angle and Contact Points Gap. **07**
 (b) Explain Day light regulating system and Central Locking system **07**
- OR**
- Q.4** (a) Enlist the various limitations of the ignition coil system. and Explain Spark Advance Mechanism **07**
 (b) Explain air conditioning and heating procedure in vehicle **07**
- Q.5** (a) Explain Brake warning light & Ignition warning light with circuit diagram. **07**
 (b) Explain Electronic injection system regulation for CRDI & MPFI engine **07**
- OR**
- Q.5** (a) Explain different types of HORNS **07**
 (b) Write a short note on **07**
 (I) Distributor tester
 (II) Timing devices.
