

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (NEW) - EXAMINATION – SUMMER 2016****Subject Code:2150208****Date:21/05/2016****Subject Name:Automotive Electrical 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.

- Q.1** (a) Explain the various battery tests. **07**
(b) Explain lead acid battery construction with neat sketch. **07**
- Q.2** (a) Describe with neat circuit diagram of Bendix Starter drive. **07**
(b) Explain with neat sketch Battery Ignition System with its advantages. **07**
- OR**
- (b) Describe the procedure of current draw for a Starter Motor. **07**
- Q.3** (a) Write a note on voltage and current regulator with neat sketch. **07**
(b) Explain Ballast Resistance & spark advance mechanism. **07**
- OR**
- Q.3** (a) Why automobile required Charging system? Explain DC Dynamo with neat diagram. **07**
(b) Explain Body operated interior lights and Parking lights with circuit diagram. **07**
- Q.4** (a) Explain windscreen wiper. **07**
(b) Explain fuel gauge with neat circuit diagram. **07**
- OR**
- Q.4** (a) Explain Day light regulating system and Central Locking system. **07**
(b) Explain following terms used in Ignition System. **07**
I. Spark Advance Mechanism
II. Cam Angle
- Q.5** (a) Define cable colour code and classify the automobile cables. **07**
(b) Write a note on Horns. **07**
- OR**
- Q.5** (a) Write Short Note on Fog Lamps and Side Indicator Lamp with circuit diagram. **07**
(b) Explain with the help of neat sketch the construction details of a Spark Plug. **07**
