

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE – SEMESTER – VIII. EXAMINATION – WINTER 2016**

**Subject Code: 180202****Date: 20/10/2016****Subject Name: Automotive Electrical & Electronics****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 Windscreen Wiper with neat sketch. **07**  
(b) How On Board Diagnostic systems in automobile works? Compare OBD I with OBD II. **07**
- Q.2** (a) State various types of Horns. Explain Double Diaphragm type Electric Horn. **07**  
(b) Write short note on Fog Lamps and Ignition Warning Lights with neat circuit diagram. **07**
- OR**
- (b) Explain Bendix Drive Mechanism of Starting System of Automobile. **07**
- Q.3** (a) Explain Principles, Construction & working of lead acid battery. **07**  
(b) Draw simple schematic wiring diagram of the electrical system of 2 Wheeler. **07**
- OR**
- Q.3** (a) Draw and explain Starting System of the Today's Automobile. **07**  
(b) Explain battery charging methodology and precautions while charging. **07**
- Q.4** (a) Enlist the various limitations of the Coil Ignition System. Explain Spark Advance Mechanism. **07**  
(b) Compare AC generator with DC Generator. **07**
- OR**
- Q.4** (a) Explain combined Current-Voltage Regulator with neat circuit diagram. **07**  
(b) Differentiate among Micro-Controller, Micro-Processor and PLC. **07**
- Q.5** (a) Explain Distributor and Battery testing in detail. **07**  
(b) Explain Central Locking system of Today's Automobile. **07**
- OR**
- Q.5** (a) Describe with the help of neat sketch the constructional details of Headlights. **07**  
(b) Explain Oil temperature gauge and Coolant temperature gauge. **07**

\*\*\*\*\*