

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER- V (New) EXAMINATION – WINTER 2019****Subject Code: 2150208****Date: 06/12/2019****Subject Name: Automotive Electrical Systems****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.

	MARKS
Q.1 (a) Justify the need of windshield wiper.	03
(b) Draw layout of wiring diagram of auto rickshaw.	04
(c) Distinguish between lead acid battery, dry battery and alkaline battery.	07
Q.2 (a) List types of cables used in automobile.	03
(b) State the advantages of lead acid battery.	04
(c) Describe construction and working of lead acid battery.	07
OR	
(c) Describe construction and working of dry battery.	07
Q.3 (a) Justify ineffectiveness of headlamp in fog.	03
(b) Distinguish between constant voltage regulator and constant current regulator.	04
(c) Explain colour coding of wiring system.	07
OR	
Q.3 (a) Define dwell angle.	03
(b) Explain alternator with neat sketch.	04
(c) Illustrate magneto ignition system.	07
Q.4 (a) Define Diode rectification.	03
(b) Explain working of cutout relay.	04
(c) Describe battery ignition system.	07
OR	
Q.4 (a) Define spark plug fouling.	03
(b) Describe ballast resistance.	04
(c) Describe construction and working of spark plug with neat sketch.	07
Q.5 (a) Describe Odometer.	03
(b) Explain oil temperature gauge.	04
(c) Illustrate characteristics of ideal sparkplug.	07
OR	
Q.5 (a) Describe speedometer.	03
(b) Explain coolant temperature gauge.	04
(c) Describe types of reflectors.	07
