

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-V (NEW) EXAMINATION – WINTER 2020****Subject Code:2150208****Date:05/02/2021****Subject Name:Automotive Electrical Systems****Time:10:30 AM TO 12:30 PM****Total Marks: 56****Instructions:**

1. Attempt any FOUR questions out of EIGHT questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

| | MARKS |
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| Q.1 (a) List types of battery used in automobile. | 03 |
| (b) Distinguish between lead acid battery and alkaline type battery. | 04 |
| (c) Explain colour coding of wiring system. | 07 |
| Q.2 (a) Justify the need of alternator. | 03 |
| (b) Discuss about windshield wiper. | 04 |
| (c) Explain constant voltage regulator. | 07 |
| Q.3 (a) Describe about glow plug. | 03 |
| (b) Explain fuel gauge. | 04 |
| (c) Illustrate working and construction of bendix drive. | 07 |
| Q.4 (a) Describe about choke. | 03 |
| (b) Explain oil temperature gauge. | 04 |
| (c) Illustrate working and construction of folo-thru drive. | 07 |
| Q.5 (a) Justify ineffectiveness of headlamp in fog. | 03 |
| (b) Describe about Odometer. | 04 |
| (c) Draw the wiring diagram of car fitted with all the minimum essential items, keeping in view driver and passengers comfort. | 07 |
| Q.6 (a) Discuss about adaptive headlights. | 03 |
| (b) Describe about speedometer. | 04 |
| (c) Explain head lamp, tail lamp, parking lamp and break lamp. | 07 |
| Q.7 (a) List types of cables used in automobile. | 03 |
| (b) Define spark plug fouling. | 04 |
| (c) Illustrate characteristics of ideal sparkplug. | 07 |
| Q.8 (a) Discuss about convertible mechanism. | 03 |
| (b) Describe about ballast resistance. | 04 |
| (c) Explain the construction and working of spark plug with fig. | 07 |
