

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**

**B.VOC - SEMESTER- I EXAMINATION – WINTER 2019**

**Subject Code: 1110102**

**Date: 10/01/2020**

**Subject Name: Automobile Electrical Equipment**

**Time: 10:30 AM TO 12:30 PM**

**Total Marks: 50**

**Instructions:**

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

**Q.1 (a)** Explain colour coding of wiring system. **05**

**(b)** Brief each cable (a) starting systems cables, (b) general purpose cables (c) high-tension cables. **05**

**Q.2 (a)** Draw neat labelled diagram of lead acid battery. **05**

**(b)** Discuss briefly about battery ratings. **05**

**OR**

**(b)** Explain the various battery tests. **05**

**Q.3 (a)** Give comparison about lead acid battery, dry battery and alkaline battery. **05**

**(b)** Write short note on Battery Life enhancer. **05**

**OR**

**Q.3 (a)** Explain construction and working of DC generator. **05**

**(b)** Explain methods of eliminating voltage fluctuation in DC Generator. **05**

**Q.4 (a)** Write short note on Armature Reaction. **05**

**(b)** Explain the construction of commutator. **05**

**OR**

**Q.4 (a)** Explain the principle, Construction and working of alternator. **05**

**(b)** Explain different types of regulators for alternator. **05**

**Q.5 (a)** What do you mean by voltage regulator and current regulator? **05**

**(b) (i)** Why is battery cells connected in series or parallel? **03**

**(ii)** What is the Need of Commutation after Alternator? **02**

**OR**

**Q.5 (a)** Explain different types of regulators for Alternator. **05**

**(b)** Compare DC Generator & Alternator Regulator. **05**