

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.VOC - SEMESTER- I EXAMINATION – WINTER 2019

Subject Code: 1110104

Date: 08/01/2020

Subject Name: Modern Electric & Hybrid Vehicles

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) Write advantages and disadvantages of electric vehicles. **05**

(b) Short note on social and environmental impact of electric vehicles. **05**

Q.2 (a) Short note on hybrid electric vehicles. **05**

(b) What is the difference between electric and hybrid electric vehicles. **05**

OR

(b) List out various components of hybrid electric vehicles. Explain in brief. **05**

Q.3 (a) Explain performance analysis of hybrid vehicles. **05**

(b) List various types of batteries. Explain any one. **05**

OR

Q.3 (a) Write advantages and disadvantages of hybrid electric vehicles. **05**

(b) Write basic concept of hybrid traction. **05**

Q.4 (a) List out various points of repair and maintenance of electric vehicles. **05**

(b) Short note on power flow control in electric and hybrid electric vehicles. **05**

OR

Q.4 (a) Explain in brief various motors used in electric and hybrid electric vehicles. **05**

(b) Write the electric drive components used in electric and hybrid electric vehicles. **05**

Q.5 (a) Short note on regenerative braking system. **05**

(b) Write down advantages and disadvantages of regenerative braking system. **05**

OR

Q.5 (a) Discuss working of regenerative braking system. **05**

(b) Write about basic concept of regenerative braking system. **05**
