

School of Electrical Electronics and Communication Engineering

Electrical Engineering

ETE - Jun 2023

Time : 3 Hours

Marks : 50

SEM VI - BEE02T5003 - ELECTRICAL AND HYBRID VEHICLE

Your answer should be specific to the question asked

Draw neat labeled diagrams wherever necessary

1. Point out few applications of electric cars. K1 CO1 (2)
2. Define electric control system. K2 CO3 (2)
3. Define fuel cells. K2 CO2 (2)
4. Define specific energy of battery. K1 CO2 (2)
5. List three types of inverters. K2 CO3 (2)
6. ILLUSTRATE THE TYPE OF HYBRID ELECTRIC VEHICLE. K3 CO1 (5)
7. Describe the Basic Principle of Super Capacitors based Energy Storage System in Hybrid Electric Vehicles. K3 CO4 (5)
8. Explain the working of fuel cell and state its limitations. K4 CO2 (6)
9. Describe the fuel efficiency analysis of hybrid drive trains and electric drive trains. K4 CO3 (8)
10. Under what condition a pure EV can be chosen as a better option compared to hybrid vehicles considering the impact on climate change. K5 CO3 (8)
11. Draw six different configurations of drivetrains in electric vehicles. Briefly explain each configuration. K5 CO2 (8)