

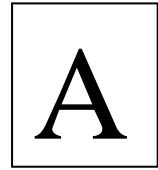
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SNS College of Technology, Coimbatore-35.
(Autonomous)

B.E/B.Tech- Internal Assessment -I
Academic Year 2023-2024 (Odd)



Seventh Semester
Open Elective

19EE0302- INTRODUCTION TO HYBRID AND ELECTRIC VEHICLES

Time: 1 ½ Hours

Maximum Marks: 50

Answer All Questions

PART - A (5x 2 = 10 Marks)

- | | | |
|--|-----|-----|
| 1. Define Electric Vehicle. | CO1 | REM |
| 2. List the social importance of hybrid Vehicles | CO1 | REM |
| 3. How the modern drive-trains impact on energy supplies | CO1 | UND |
| 4. Outline the Vehicle Power Source Characterization | CO1 | UND |
| 5. Recall the concept of hybrid traction system | CO2 | REM |

PART - B (13+13+14 = 40 Marks)

- | | | | |
|--|----|-----|-----|
| 6. (a) Explain in detail the Basics of vehicle performance in HEVs | 13 | CO1 | APP |
| (OR) | | | |
| 6. (b) Extend the impact of modern drive-trains on energy supplies for HEVs | 13 | CO1 | UND |
| 7. (a) Identify the vehicle power source characterization of HEV. | 13 | CO1 | APP |
| (OR) | | | |
| 7. (b) Make use of fuel efficiency analysis how Hybrid Electric drive-trains are selected | 13 | CO2 | APP |
| 8. (a) Develop the mathematical models to describe vehicle performance of HEVs | 14 | CO1 | APP |
| (OR) | | | |
| 8. (b) Illustrate the various hybrid drive-train topologies used in Hybrid electric drive-trains and Explain in details. | 14 | CO2 | APP |

Abbreviations:- REM-Remembering, UND-Understanding, APP-Appling, ANA-Analyzing, EVA-Evaluating, CRE-Creating

Reg.No:

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SNS College of Technology, Coimbatore-35.
(Autonomous)

B.E/B.Tech- Internal Assessment -I
Academic Year 2023-2024 (Odd)

B

Seventh Semester

Electrical and Electronics Engineering

19EEO302- INTRODUCTION TO HYBRID AND ELECTRIC VEHICLES

Time: 1 ½ Hours

Maximum Marks: 50

Answer All Questions

PART - A (5x 2 = 10 Marks)

- | | | |
|---|-----|-----|
| 1. Define Hybrid Vehicle. | CO1 | REM |
| 2. List the social importance of Electric Vehicles | CO1 | REM |
| 3. How the modern drive-trains impact on energy supplies. | CO1 | UND |
| 4. Identify the transmission Characterization of HEV | CO1 | UND |
| 5. Recall the concept of hybrid drive-train topologies | CO2 | REM |

PART - B (13+13+14 = 40 Marks)

- | | | | |
|---|----|-----|-----|
| 6. (a) Explain in detail the History of electric vehicles | 13 | CO1 | APP |
| (OR) | | | |
| 6. (b) Extend the environmental importance of hybrid vehicles. | 13 | CO1 | APP |
| 7. (a) Identify the modern drive-trains on energy supplies for HEVs. | 13 | CO1 | APP |
| (OR) | | | |
| 7. (b) Make use of fuel efficiency analysis how Hybrid Hybrid drive-trains are selected | 13 | CO2 | APP |
| 8. (a) Explain the transmission characteristics of Hybrid Electric vehicles | 14 | CO2 | UND |
| (OR) | | | |
| 8. (b) Illustrate the power flow control in hybrid drive-train topologies and explain in details. | 14 | CO2 | APP |

Abbreviations:- REM-Remembering, UND-Understanding, APP-Aplying, ANA-Analyzing, EVA-Evaluating, CRE-Creating