

Register No.:

**535**

**April 2023**

*Time – Three hours  
(Maximum Marks: 100)*

- N.B.**
1. Answer all questions under Part-A. Each question carries 3 marks.
  2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.

**PART – A**

1. What is Hybrid electric vehicle?
2. Write about the FCEV.
3. Write about the concept of HEV drive train.
4. List the merits of DC motor Drive.
5. Write about the electrochemical batteries.
6. Define trickle charging.
7. Mention applicability of EV policy.
8. What are the advantages of EV Eco system?
9. Mention the incentives provided by the Government for the EV purchases.
10. What are the initiatives of capacity building in EV policy?

[Turn over.....

**PART – B**

11. (a) Explain the history of electric vehicle and hybrid electric vehicle.

(Or)

(b) Differentiate between BEV and conventional vehicle. List the advantages of BEV.

12. (a) Explain about the performance of the Electric Vehicles.

(Or)

(b) Explain about Brushless DC motor drive.

13. (a) Explain the construction and working of lithium ion battery.

(Or)

(b) Explain about the battery charging techniques.

14. (a) Explain the electric mobility in India.

(Or)

(b) Write short notes on trends and future developments of EV market.

15. (a) Explain the recycling ecosystem in battery and EVs.

(Or)

(b) Discuss about the supply side incentives in Tamil Nadu to promote EV manufacturing.