SEAT No. :

PC-213

[6361] - 74

B.E. (Electrical) (Insem)
ELECTRIC AND HYBRID VEHICLE
(2019 Pattern) (Semester - VII) (403144B) (Elective - IV)

Time : 1 Hour]   *[Max. Marks : 30*

Instructions to the candidates:

1) *Answers Q.1 or Q.2, Q.3 or Q.4.*

2) *Neat diagrams must be drawn wherever necessary.*

3) *Figures to the right side indicate full marks.*

4) *Assume suitable data if necessary.*

Q1) a) Draw & Explain Life Cycle Assessment of Li-ion battery. **[7]**

     b) Write a short note on Solid-state Battery. **[8]**

OR

Q2) a) Draw & explain block diagram of wireless charging system of EV and mention its type. **[8]**

     b) State various lithium batteries used for EV and mention materials used for Li-ion battery. **[7]**

Q3) a) Describe SoC estimation methods using Neural Network. **[7]**

     b) Using heat equilibrium equation explain the thermal modelling of Li-ion battery. **[8]**

OR

Q4) a) State various standards for Battery Management Systems. Explain any one. **[8]**

     b) Describe SoC estimation methods using Neural Network. **[7]**

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