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SEAT No. :

PC-213

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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]

