Total No. of Questions : 4]

PA-10050

SEAT No. :

[Total No. of Pages : 1

Max. Marks : 30

[6009]-333

T.E. (Electrical) (Insem)

ELECTRICAL MOBILITY

(2019 Pattern) (Semester - II) (303151B) (Elective - II)

Time : 1 Hour]

Instructions to the candidates:

- 1) Each questions carry 15 marks.
- 2) Solve question Q1 or Q2 and Q3 or Q4.
- 3) Figures to the right side indicate full marks
- 4) Assume the suitable data, if necessary.

Q1) a) State and Explain the challenges in Electric and Hybrid Electric Vehicle. [7]

- b) Draw and explain Architecture of Parallel Hybrid Electric Drive with advantages and applications. [8]
- **Q2**) a) Need and important of Hybrid Electric and Electric Vehicle.
 - b) Explain the Rolling Resistance and Aerodynamic Drag.
- Q3) a) Which are the factors to be considered while selecting energy storage device? [7]
 - b) Explain with neat diagram the Fuel cell Based Energy storage System with its advantages and applications. [8]

OR

- Q4 a) Compare lead acid battery and Lithium Ion Battery. [7]
 - b) Explain the Hybridization of various energy storage devices and its advantages.
 [8]

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