

Total No. of Questions : 4]

SEAT No. :

PB222

[6269]-449

[Total No. of Pages : 1

**T.E. (Electrical Mechanical) (Insem)
HONORS IN ELECTRIC VEHICLES
e - Vehicle System Design
(2019 Pattern) (Semester - II) (302033 MJ)**

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) *Answer Two questions from the following. (Question 1 or 2 and Question 3 or 4).*
- 2) *Draw neat labeled diagrams wherever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Use of non-programmable electronic calculator is permitted.*
- 5) *Assume Suitable/Standard data if necessary.*

Q1) a) What are the types of steering system and explain any two. **[7]**

b) Explain 2W configuration of bicycle/dicycle layout. **[8]**

OR

Q2) a) Explain how a car steering system works. **[8]**

b) Explain 4W Configuration of 3 seater. **[7]**

Q3) a) What is suspension system and how it works in automobile. **[8]**

b) Explain Shock Absorbers in suspension system. **[7]**

OR

Q4) a) Explain Front and Rear Suspension System. **[8]**

b) Explain design of Coil Spring. **[7]**

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