

Total No. of Questions : 4]

SEAT No. :

P8995

[Total No. of Pages : 1

Oct-22/BE/Insem-156

B.E. (Mechanical /Automobile Engineering)

HONORS : MODELLING AND SIMULATION OF EHV

(2019 Pattern) (402034 MJ) (Semester - VII)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates :

- 1) *Solve Q.1 or Q.2, Q.3 or Q.4.*
- 2) *Figures to the right indicate full marks.*
- 3) *Draw the neat sketch wherever necessary.*

Q1) a) Explain Switched Reluctance motor drives with its working principal, advantages, disadvantages and applications? [8]

b) Explain any two EV configurations due to variation in electric propulsion? [6]

OR

Q2) a) Explain the Selection criteria of Motor Power Rating? [6]

b) Explain the following (any two) [8]

- i) Electric Motor Safety.
- ii) Motor Operation Safety
- iii) Motor Installation Safety
- iv) Motor Maintenance Safety

Q3) a) Explain the constructional details of lead acid battery with its advantages, disadvantages and applications? [8]

b) Explain briefly Cooling System and Thermal Management? [8]

OR

Q4) a) Explain Battery Packs design and considerations against Noise and Vibration exposure? [8]

b) Explain vehicle dynamics with its elements and affecting factors? [8]

