

Total No. of Questions : 8]

SEAT No. :

P3597

[Total No. of Pages : 2

[4959]-1071

B.E. (Electrical) (End Semester)

**INTRODUCTION TO ELECTRICAL TRANSPORTATION
SYSTEMS**

(2012 Pattern) (Elective - II)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *Attempt Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*

Q1) a) Explain Lead Acid battery with neat diagram. **[8]**

b) Define transportation system: Importance and factors affecting transportation system. **[8]**

c) Explain Air way transportation mode in detail. **[4]**

OR

Q2) a) Explain different characteristics of battery. **[8]**

b) Explain different types of mechanical drive. **[8]**

c) Why power converter is needed in battery operated vehicle. **[4]**

Q3) a) Explain Buck type of DC converter with diagram. **[8]**

b) Differentiate between Hybrid and electric vehicle. **[8]**

OR

Q4) a) Explain speed torque characteristics of DC machine in battery operated vehicle with neat diagram. **[10]**

b) Differentiate between mechanical and electrical steering. **[6]**

Q5) a) Explain different types of Hydraulic drive used in transportation system. **[10]**

b) Draw typical power train architecture and explain in brief. **[8]**

P.T.O.

OR

- Q6)** a) What is Hybrid car and explain different types of hybrid vehicles? [10]
b) Explain DC traction system in detail. [8]

- Q7)** a) Explain acceleration and speed characteristics of hybrid car. [8]
b) Draw control system diagram used in elevator and explain in brief. [8]

OR

- Q8)** a) Explain Hydraulic type of elevator system. [8]
b) Explain different type of control schemes in special vehicle. [8]

