

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]

