

Total No. of Questions : 6]

SEAT No. :

**P80**

**OCT. -16/BE/Insem. - 135**

[Total No. of Pages : 1

**B.E. (Electrical)**

**INTRODUCTION TO ELECTRICAL TRANSPORTATION SYSTEMS  
(2012 Course) (Semester - I) (Elective-II) (403144)**

*Time : 1 Hour]*

*[Max. Marks :30*

*Instructions to the candidates:*

- 1) *Neat diagrams must be drawn wherever necessary.*
- 2) *Figures to the right indicate full marks.*
- 3) *All questions carry equal marks.*
- 4) *Assume suitable data, if necessary.*

- Q1)** a) Write the advantages and disadvantages of Electric traction. [4]  
b) Explain the waterways mode of transportation with advantages and disadvantages. [6]

OR

- Q2)** Explain the need, importance and role of transportation systems in society. [10]

- Q3)** a) Explain the various sources of energy used in transportation systems. [4]  
b) Explain the impact of batteries on environment. [6]

OR

- Q4)** Explain the working of Ni-cd battery with its characteristics. [10]

- Q5)** a) Explain the process of conversion of electrical energy into mechanical energy in AC machines. [4]  
b) Explain single phase AC to DC converter with neat diagram. [6]

OR

- Q6)** Explain the speed-torque characteristics of DC drives with neat diagram. [10]

