

**Code No: D8706**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD  
M.TECH II - SEMESTER EXAMINATIONS, APRIL/MAY 2012  
LAND USE AND TRANSPORTATION ENGINEERING  
(HIGHWAY ENGINEERING)**

**Time: 3hours****Max. Marks: 60**

**Answer any five questions  
All questions carry equal marks**

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1. What are the system parameters that reflect Transportation Demand and Supply? Explain. Also discuss how the equilibrium between Transportation Demand and Supply can be achieved.
2. What is considered as a classic Transportation Model and what is its structure? What are the drawbacks of this classic Transportation Model? Explain.
3. Give the conceptual framework of a Land Use Transportation Model. Discuss how it is different from traditional Transport Model.
4. In what way the Lowry's approach has brought changes in the Transportation Modelling? Explain the activity sectors identified in Lowry's Model and also the equation system of the model.
5. Differentiate between Aggregate and Disaggregate Travel Demand Models with equations indicating the parameters to be considered in each case. Bring out their advantages and disadvantages.
6. What factors influence the Mode choice behaviour of the urban traveler and how these factors are taken care in Mode-specific and Abstract mode models of Mode Split? Explain.
7. Differentiate between the factors influencing freight traffic and passenger traffic at Regional Level. Also explain how the freight traffic can be predicted on a regional network.
8. Write short notes on the following:
  - a) Logit and Probit Models
  - b) IVF Models
  - c) Network Structures and Indices

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