USN

2005 JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY I

IV B.TECH I SEMESTER SUPPLEMENTARY EXAMINATIONS
TRANSPORTATION PLANNING & DESIGN
(CIVIL ENGINEERING)

NOVEMBER 2005

TIME: 3 HOURS

MAX MARKS: 80

Answer any FIVE Questions
All Questions carry equal marks
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1. (a) What is Travel Demand? Define. Explain the factors influencing Travel Demand. [8]

(b) What are the assumptions made in Travel Demand forecasting? Explain. [8]

2. Explain the four states involved in Transportation planning process. Bring out the impportance of each stage in arriving at the final travel demand. [16]

3. Discuss the principles governing the definition of a study area for transportation planning. Also describe the guidelines to be adopted in dividing study area into zones. [16]

4. (a) What is Trip generation and Trip attraction? Explain. Also explain the use of multiple linear regression technique for Trip generation. [10]

(b) Clearly explain the use of category analysis in Trip generation models. [6]

5. Explain the concept of Trip distribution. Disucss about the various growth factor models available for Trip distribution and give their limitations. [16]

6. What is the purpose of Traffic assignment? Briefly explain. Discuss the use of all-or-nothing technique and capacity restraint technique for assignment. [16]

7. (a) What are the adverse effects of traffic on environment? Descrinbe [8]

(b) What are the costs and benefits involved in economic evaluation of transportation projects? Explain. [8]

8. Writte short notes on the following: [4x4=16]
(a) Relation between Land use and Transport
(b) Gravity model
(c) Minimum path Tree
(d) Benefit-cost Ratio method.