

IV B.Tech I Semester Supplementary Examinations, April/May 2005
TRANSPORTATION PLANNING & DESIGN
(Civil Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. In an urban area what factors influence the travel patterns? Explain. Giving the assumptions made in travel demand estimation, explain the travel demand function.
2. (a) What are the parameters considered at aggregate level and disaggregate level in transportation models? Explain.
(b) With the help of flow chart, differentiate between sequential models and sequential recursive models. Explain the conceptual difference between them.
3. What is the purpose of conducting O-D surveys? Explain. Also explain the different types of surveys employed to get O-D data.
4. What are the factors on which trip generation potential of a zone depends? Explain. Also describe briefly the use of category analysis for trip generation modeling.
5. (a) Explain the Furness method of estimating future Trip distribution between different zones.
(b) Explain clearly the concept of gravity model for Trip distribution.
6. What is the purpose of Traffic assignment? What are the principals governing traffic assignment? Explain the various techniques available for traffic assignment.
7. (a) What are vehicle operating costs? Explain. Also describe the factors that influence vehicle operating costs.
(b) Explain the method of Internal Rate of Return used in economic evaluation of high-way projects.
8. Write short notes on the following:
 - (a) Design Line Diagram
 - (b) Average growth factor method
 - (c) Diversion curves for Mode split
 - (d) Environmental impact of traffic.
