

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA VIZIANAGARAM
IV B. Tech I Semester Regular/Supplementary Examinations OCT/NOV 2025

URBAN PLANNING

(OPEN ELECTIVE)

Time: 3 hours

Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**

All Questions Carry Equal Marks

UNIT-I

1. a) Describe the evolution of the urban transportation planning process with suitable examples. [7M]
b) Explain the role of short-term strategies in managing urban transportation problems. [7M]

(OR)

2. a) Using the systems approach, illustrate how supply and demand are balanced in urban transport networks. [7M]
b) Compare long-term and short-term transportation planning approaches with suitable examples. [7M]

UNIT-II

3. a) Explain the importance of zoning in defining a study area for transportation surveys. [7M]
b) Illustrate how roadside interview and home interview surveys are applied to estimate travel characteristics? [7M]

(OR)

4. a) Describe the process of organization and analysis of transportation survey data with suitable examples. [7M]
b) Explain how accuracy checks influence the reliability of transportation data. [7M]

UNIT-III

5. a) Explain the need for trip generation analysis in the transportation planning process. [7M]
b) Evaluate the strengths and limitations of zonal models in trip generation analysis. [7M]

(OR)

6. a) Discuss the differences between production and attraction in trip generation analysis. [7M]
b) Illustrate with an example how commercial trip rates can be estimated for business zones. [7M]

UNIT-IV

7. a) What is meant by a mode split curve? List the major factors influencing mode choice behaviour. [7M]
b) Explain the IIA (Independence from Irrelevant Alternatives) property in the context of the Multinomial Logit Model. [7M]

(OR)

8. a) Define traffic assignment, objectives & List the basic elements of a transport network. [7M]
b) Explain the process of network coding in transportation planning. [7M]

UNIT-V

9. a) Define corridor deficiency analysis and write about its importance in urban planning. [7M]
b) Explain the role of Traffic Impact Assessments (TIA) in evaluating new developments. [7M]

(OR)

10. a) Explain the steps involved in corridor selection for urban transportation networks. [7M]
b) Explain a case study-based evaluation model for comparing multiple corridor alternatives in a metropolitan area. [7M]
