

AMTS02 TRANSPORTATION SYSTEM PLANNING AND MANAGEMENT

UNIT-1 GENERAL

- 1.1 Importance of transportation, transportation planning methodology, hierarchical levels of planning and its relation to rural, urban areas.
- 1.2 Long range planning, Passenger and goods transportation, General concept and process of transport planning, Land-use transport interactions,
- 1.3 Socio economic characteristics of Land use

UNIT-2 TRANSPORTATION SYSTEMS

- 2.1 Multi modal transportation system; Characteristics of Mass Transit systems including technical, demand operational and economic problems, fixed Track Facility,
- 2.2 Mass Rapid Transit System-Elevated, Surface and Underground construction,
- 2.3 Express Bus System, integrated Operating Characteristics of Terminal and Transfer facilities

UNIT-3 URBAN TRANSPORTATION PLANNING STUDIES

- 3.1 Urban Travel Characteristics, Private and Public Behavior analysis,
- 3.2 Transportation demand Surveys, Delineation of the urban area, zoning,
- 3.3 Origin-Destination Studies, Home Interviews, trip Classification and Socio- Economic variables in trip making projections

UNIT-4 PLANNING METHODOLOGY AND SYSTEMS ANALYSIS

- 4.1 Study of existing network-trip generation techniques, Category analysis, multiple regression techniques, Modal split analysis, Trip distribution techniques,
- 4.2 Growth Factor model, Gravity models, Opportunity models and multiple regression models, Traffic assignment methods,
- 4.3 Minimum Path tree-All or nothing assignment and capacity restraint techniques, analysis and evaluation techniques

References Books:

1. Kadiyali, L. R., Traffic Engineering and Transport Planning, Khanna Publishers 2011
2. Highway Engg.-Khanna S.K. and Justo C. E. G. New Chand Publication 2008
3. C A O'Flaherty, "Transport Planning and Traffic Engineering", Butterworth Heinemann, Elsevier, Burlington, MA 2006.