

Major Elective – 3
(Group – 1)
Economic Evaluation of Transportation Projects

Course Objectives:

1. To give basic idea of economic analysis and related terms.
2. To make the students aware of using different methods for economic evaluation.
3. To make the students conversant with economic and financial analysis of transportation projects.

Course Contents:

1. Introductions – Demand and Utility.
2. Laws of Demand, Utility analysis, Ordinal analysis, Income effect, Price effect, Demand curves, Elasticity of supply.
3. National Income, GNP, GDP, Methods of Estimating National Income.
4. Project Appraisal – Total Cost, Principles of analysis, Road Users Cost – Factors, Benefits.
5. Economic Evaluation – Different Methods, Sensitivity analysis.
6. Maintenance Cost – Factors, Methods.
7. Traffic System Evaluation.
8. Financing Mechanism - Taxes, Tolls, Private Financing.
9. Transport Cost – Types, Factors, Cost analysis for Mass Transit System,
10. Pricing – Marginal Cost Pricing, National Policy, Fares, Subsidy.
11. Economic analysis of transportation projects ownership and financing of transport, economic function of transportation road user and transportation costs, highway finance and taxation, case studies of analysis and evaluation of transportation projects.

Tutorials:

1. Problems based on demand and supply, elasticity analysis.
2. Problems based on estimation of National Income.
3. Problems based on different methods for economic evaluation, like B/C ratio, NPV, IRR etc.
4. Problems based on deriving transport cost.
5. Cost analysis for mass transit system.
6. Problems based on toll fixation.
7. Computer applications for the above problems.

Group work:

Prepare brief report on any recent case study of economic evaluation of transportation project. Give presentation on it with group discussion.

References:

1. D.M.Mithani, *Economic Analysis* – (Himalaya)
2. IRC– 30, *Manual on Economic Evaluation of Highways In India*.
3. Fair and Williams, *Economics of Transportation*, Harper and Brothers, Publishers, New York, 1959.
4. R.Winfrey, *Economic Analysis for Highway* International Textbook Co., Pennsylvania. USA,1969
5. G.Harrl Clell, *A Manual for the Economic Appraisal of Transport Projects*, World Bank Report, Washington D.C.1980.