

Module Code: MATH-427
Module Title: **Operations Research - II**
Module Rating: 3 Cr. Hours
Pre-Requisite: Operations Research – I

- Shortest-Route algorithms for acyclic networks
- Maximal-flow problem
- Matrix definition of LP problem
- Revised simplex method, bounded variables
- Decomposition algorithm
- Parametric linear programming
- Applications of integer programming
- Cutting-plane algorithms
- Branch-and-bound method
- Zero-one implicit enumeration
- Elements of dynamic programming
- Problem of dimensionality
- Programmes by dynamic programming

Recommended Books

1. Hamdy A. Taha, *Operations Research-An Introduction*, (Macmillan Publishing Company Inc., New York, 1987)
2. B. E. Gillett, *Introduction to Operations Research*, (Tata McGraw Hill Publishing Company Ltd., New Delhi)
3. F. S. Hillier and G. J. Lieberman, *Operations Research*, (CBS Publishers and Distributors, New Delhi, 1974)
4. C. M. Harvey, *Operations Research*, (North Holland, New Delhi, 1979)