

MT-351 Operations research

Linear programming: formulations and graphical solution, simplex method-technique and two-phase technique, special cases, duality and sensitivity analysis, the dual problem, primal-dual relationships, dual simplex method, sensitivity and post optimal analysis, transportation models, north-west corner, least-cost and Vogel's approximations methods, the method of multipliers, the assignment model, the transshipment model, network minimization, shortest-route algorithms for a cyclic networks, maximal-flow problem, CPM and PERT, decision analysis and games: decision making under certainty, under risk and uncertainty, game theory.

Recommended Books:

1. "Operations Research - An Introduction", Hamdy A. Taha, prentice-Hall of India private ltd., 7th Edition, 2002.
2. "Introduction to Operations Research", B. E. Gillett, Tata McGraw Hill Publishing Company Ltd., New Delhi, 2007.