

**Subject Code: 301**

**Subject Name: Quantitative Techniques**

**Unit I: Linear Programming** **20Hrs.**

Formulation of Linear Programming Problem of several variables, Graphical method and Simplex method of solving Linear Programming Problem, Duality of Linear Programming Problem.

**Unit II: Transportation and Assignment Problem** **12Hrs.**

Formulation of transportation and assignment problem as linear programming problem, Solving transportation and assignment problem, degeneracy.

**Unit III: Queuing Theory** **10Hrs.**

Introduction to single server and multiple server models, problems expected only on the Poisson - Exponential model for single server finite population.

**Unit IV: Game Theory** **10Hrs.**

Introduction, basic definitions and terminology, solution methods of pure strategic game, principle of dominance, solution methods of mixed strategic game

**Unit V: Decision Theory** **8Hrs.**

Decision tree, expected profit under uncertainty

**Books Recommended**

1. Quantitative Techniques in Management by N. D. Vora
2. Operations Research (Techniques for Management) by V. K. Kapoor
3. Statistics for Management by Levin
4. Statistical Methods by S. P. Gupta
5. Introduction to Operation Research by Hiller & Liberman
6. Quantitative Methods for Business Economics by A. H. Muinammed
7. Quantitative Technique. Volume I & II by Jhamb