Operation Research & Optimisation Techniques Code: MM401 **CREDITS: 4**

Linear Programming-Simplex Method, Duality Method, Assignment Problem, Transportation Problem.

Integer Programming-Cutting Plane, Branch & Bound

Network Optimisation Models- The shortest path problem, Minimum Spanning Tree Algorithm, Maximal Flow Algorithms, PERT/ CPM.

Dynamic Programming- Characteristics, Deterministic & Probabilistic Dynamic Programming.

Queuing Theory- Basic Structure, Exponential distribution, Birth-and-Death Model, M/M/I Queue.

Game Theory-Two person Zero Sum game, saddle point determination, algebraic method, graphical method etc.

Inventory Control- Determination of EOQ, Components, Deterministic Continuous & Deterministic Periodic Review Models, Stochastic Continuous & Stochastic Periodic Review Models.

Sequencing- Two men two machines, Three Men Two Machines