

## **MT610: MATHEMATICAL PROGRAMMING-II**

**Syllabus:** Constrained optimizations in NLPP; Kuhn-Tucker conditions and Kuhn-Tucker theorem; Quadratic programming. Wolf's method and Beale's method in QPP; Quadratic programming and duality in quadratic programming; Convex Separable programming and algorithm; Dynamic programming. Bellman's optimality principle. Solution of linear programming problems using Dynamic Programming.

### **UNIT SCHEDULE**

- Unit 7** Constrained optimizations in NLPP; Kuhn-Tucker conditions
- Unit 8** Quadratic programming
- Unit 9** Quadratic programming and duality in quadratic programming;
- Unit 10** Convex Separable programming and algorithm
- Unit 11** Dynamic programming. Bellman's optimality principle
- Unit 12** Solution of linear programming problems using Dynamic Programming