SARDAR PATEL UNIVERSITY
THIRD SEMESTER
(EFFECTIVE FROM JUNE, 2011)
SUBJECT: STATISTICS
COURSE CODE: US03ESTA01
(OPERATION RESEARCH-I)

Course credit: 2

No. of lectures per week: 2

All units carry equal Weightage

Weightage: Internal – 30%, External – 70%

Unit-I Linear Programming-I

- ➢ **Introduction**
- ➢ **Formulation of LPP**
- ➢ **Solution of LPP using Graphical method**

Unit-II Linear Programming-II

- ➢ **Solution of LPP using Simplex method (Big M method)**
- ➢ **Duality**

Unit-III Transportation Problems-I

- ➢ **Introduction**
- ➢ **Mathematical formulation of Transportation problem**
- ➢ **Methods of finding i.b.f. solution**
    - ➢ **North West Corner Method (N-W Corner Method)**
    - ➢ **Row Minima Method**
    - ➢ **Column Minima method**
    - ➢ **Matrix Minima Method (Least Cost Entry Method)**
    - ➢ **Vogel's Approximation method (VAM)**

Unit-IV Transportation Problems-II

- ➢ **uv method of obtaining optimum solution of TP**
- ➢ **Unbalanced TP**
- ➢ **Degenerate TP**

References:

   (i) **Operations Research by S.D.Sharma**
   (ii) **Operations Research by J.K.Sharma**