

## SEMESTER-II (Pool-A)

### COURSE NAME : OPERATIONS RESEARCH

(CHOI-A38)

Number of Credit: - 02

Maximum marks: 50

#### Objective of the course:-

At the end of the course students can understand and deal the problems related to Industries *Organizations/management* field. prerequisite(s) : graphs, elementary knowledge of SCILAB

#### Detailed syllabus

##### Unit -1

Linear Programming (LP): Terminology and formulations of problem. Graphical solutions to LPP.

##### Unit -2

Simplex method. Dual problem and finding solution of primal problems.

##### Unit -3

SCILAB introduction and application in solving matrix problems. solution of problems using Karmarkar method with the help of SCILAB.

##### Unit -4

Assignment Problem – works and workmanship problems.

##### Unit- 5

Transportation - Problem balanced and unbalanced problems.

#### Book Reference:

1. Operations Research : Gupta, Prem Kumar & Hira D.S. S. Chand and co.
2. Operations Research Methods : Sujit Kumar Bose. Narosa pub.
3. Mathematical Programming : S. M. Sinha. ELSEVIER.
4. SCI Lab : software : Open source GPL.