

VEER NARMAD SOUTH GUJARAT UNIVERSITY, SURAT
SYLLABUS FOR B.Sc. (MATHEMATICS)

SEMESTER – VI

Elective Generic-6001

(Operations Research – II)

Effective from June 2019

Marks : 70 (20 internal + 50external)

(2 Hours / Week - Credits :2)

Unit 1:

Transportation problem, Methods for finding initial basic feasible solution, Solution of Transportation problem by MODI method, Unbalanced Transportation problem.

Unit 2:

Assignment problems, The Hungarian method, Balanced & Unbalanced Assignment problems.

Unit 3:

Competitive Games, Two-person zero-sum game, Maximin and Minimax principle, Saddle points and the value of the game (based on pure strategies), Mixed strategies, Solution of Games with Saddle point, Game without saddle points, Dominance rule, Solution of $m \times 2$ and $2 \times n$ Games using graphical method.

The course is covered by the following reference books:

1. J. K. Sharma : Operations Research: Theory & Applications, McMillan India Ltd., 1998.
2. Kanti Swaroop, P. K. Gupta & Man Mohan : Operations Research, S. Chand & Sons, New Delhi, 1998.
3. G. Hadley : Linear Programming, Narosa Publishing House, New Delhi, 1995.
4. S. D. Sharma: Operations Research, Kedarnath Ramnath & Co.
5. P. M. Karak : Linear Programming, New Central Book Agency Pvt. Ltd. Calcutta.
6. K. V. Mittal & L. Mohan : Optimization methods in O.R. and System Analysis, New Age International Publications.
7. Goel & Mittal : O.R., Pragati Prakashan, Meerut.

