

SARDAR PATEL UNIVERSITY
Programme & Subject: B.Sc (Mathematics)
Semester: IV
Syllabus with Effect from: June - 2015

Paper Code: US04EMTH06	Total Credit: 2
Title Of Paper: Operations Research - II	

Unit	Description in detail	Weighting (%)
I	Introduction to Assignment Problem, Mathematical formulation of Assignment problem, Hungarian method for finding optimum solution to AP, Unbalanced Assignment Problem, Maximal Assignment Problem.	
II	Elements of Game Theory : Two person zero sum game : concept saddle points, Games without saddle points, Mixed strategies (Results without proof). Graphical solution of $2 * n$ and $n * 2$ game. Dominance property.	
III	Job Sequencing: Introduction, Solution of Sequencing problem processing with n jobs through 2 machines and n jobs Through 3 machines.	
IV	Project Management by PERT and CPM, Introduction to PERT and CPM, Advantage and Assumptions, Rules for network construction, Critical Path calculation, Total float free float.	

Basic Text & Reference Books:-

Operations Research by S D Sharma

- Chapter - 12 12.1,12.2,12.3,12.4,12.5,12.6,12,12.7.1
- Chapter - 19 19.1, 19.2, 19.3, 19.4, 19.5, 19.6, 19.7, 19.8, 19.9, 19.14, 19.15
- Chapter - 24 24.1, 24.2, 24.3, 24.4, 24.5, 24.6
- Chapter - 25 25.1, 25.2, 25.3, 25.4, 25.5, 25.6, 25.7, 25.8

- Operation Research by J K Sharma
- Operations Research : An Introduction by Hamdy A Taha
- Kanti Swarup and Man Mohan Gupta : Operations Research

